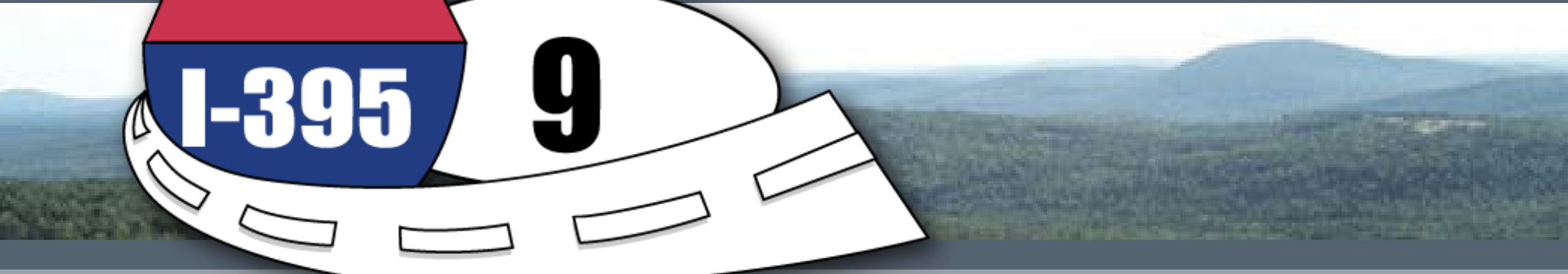
I-395/Route 9 Transportation Study

Final Environmental Impact Statement



Brewer, Holden, Eddington, and Clifton, Maine

FHWA-ME-EIS-12-01-F

MaineDOT Project Identification Number: 008483.20

FHWA: NH-8483(20)E

January 2015

Submitted Pursuant to 42 U.S.C. 4332 (2)(c) by the

Federal Highway Administration FHWA MaineDOT

and Cooperating Agencies

U.S. Fish & Wildlife Service, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration–National Marine Fisheries Service, Maine Department of Environmental Protection, and Maine Historic Preservation Commission

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1/12/15

David Bernhardt, P.E. **Date**
Commissioner; Maine Department of Transportation

1/20/15

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The Maine Department of Transportation (MaineDOT) and the Maine Division of Federal Highway Administration (FHWA) have undertaken the I-395/Route 9 Transportation Study to evaluate transportation alternatives to improve regional system linkage, relieve traffic congestion, and improve safety along Routes 1A and 46, and to improve the current and future flow of traffic and the shipment of goods to the Interstate system. This Environmental Impact Statement examines the environmental effects of the "No-Build" Alternative and three build alternatives developed to satisfy the study purpose and needs. The purpose of this is to provide the FHWA, the MaineDOT, the U.S. Army Corps of Engineers (USACE), and the public with a full accounting of the environmental impacts to the natural, social, atmospheric, economic and transportation environments. The EIS serves as the primary document to facilitate review of the project by federal, state, and local agencies and the general public.

After careful consideration of the range of alternatives developed in response to the study's purpose and needs and in coordination with its cooperating and participating agencies and public input, the MaineDOT and the FHWA have identified Alternative 2B-2 as its preferred alternative because it best satisfies the study purpose and needs, would fulfill their statutory mission and responsibilities, and has the least adverse environmental impact.

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Preface

The Federal Council on Environmental Quality (CEQ) Regulations for implementing the National Environmental Policy Act (40 CFR 1500-1508) (NEPA) place heavy emphasis on reducing paperwork, avoiding unnecessary work, and producing documents that are useful to decision-makers and the public. With these objectives in mind, the final environmental impact statement (FEIS) was prepared using a condensed format. This approach avoids repetition of material from the draft EIS (DEIS) by incorporating, by reference, the DEIS. Thus, the FEIS is a much shorter document than under the traditional approach; however, it does afford the reader a complete overview of the study and its impacts on the human environment.

The purpose of this approach is to briefly reference and summarize information from the DEIS that has not changed, and to focus the FEIS discussion on changes in the study's setting, impacts, technical analysis, and mitigation measures that have occurred since the DEIS was circulated. In addition, the condensed FEIS identifies the preferred alternative, explains the basis for its selection, describes coordination efforts, includes agency and public comments on the DEIS, provides responses to these comments, and presents findings or determinations required by law or regulation.

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Summary

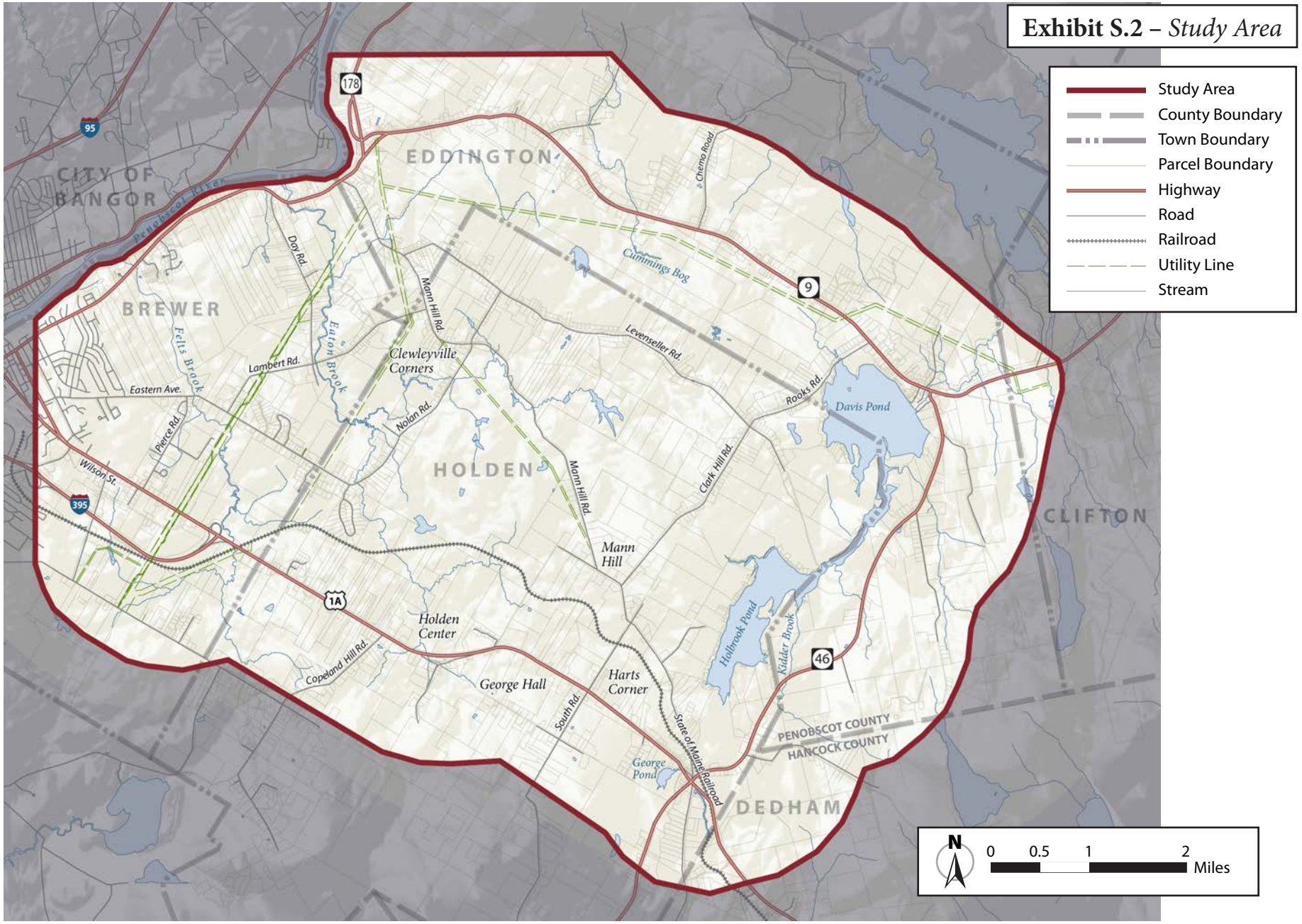
The Maine Department of Transportation (MaineDOT) and the Federal Highway Administration (FHWA) have undertaken the Interstate 395/ Route 9 Transportation Study to identify a regional solution that would improve transportation-system linkage, safety, and mobility between I-395 and Route 9 along Routes 1A and 46, and to improve the current and future flow of traffic and the shipment of goods to/from the Interstate system in southern Penobscot County, Maine (exhibits S.1 and S.2). The U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration–National Marine Fisheries Service, Maine Department of Environmental Protection, and Maine Historic Preservation Commission acted as cooperating agencies for the study.

"Cooperating agency" means any Federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment. A state or local agency of similar qualifications…may by agreement with the lead agency become a cooperating agency (40 Code of Federal Regulations [CFR] 1508.5).

Exhibit S.1 – *Location Map*

Chapter Contents

Exhibit S.2 – *Study Area*



The opening of I-395 in November 1986, the State of Maine's east–west highway initiative, and the creation of the federal National Highway System (NHS) established the impetus for this study.

Purpose

The purposes of the I-395/Route 9 Transportation Study are to (1) identify a section of the NHS in Maine from I-395 in Brewer to Route 9 in Eddington, consistent with the current American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*; (2) improve regional system linkage; (3) improve safety on Routes 1A and 46; and (4) improve the current and future flow of traffic and the shipment of goods to the Interstate system. The logical termini of the project was identified and defined as (1) I-395 near Route 1A and (2) the portion of Route 9 in the study area.

In accordance with ection 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is required to prepare a basic purpose statement to determine compliance with the CWA Section 404(b)(1) guidelines. Accordingly, the USACE determined that the basic project purpose "…is to provide for the safe and efficient flow of east-west traffic and shipment of goods from Brewer (I-395) to Eddington (Route 9), Maine, for current and projected traffic volumes."

Needs

The need (i.e., the problem) for transportation improvements is based on poor roadway geometry in the study area combined with an increase in local and regional commercial and passenger traffic that has resulted in poor system linkage, safety concerns, and traffic congestion.

Poor System Linkage

Vehicles traveling through the study area from I-395 to Route 9 generally proceed from I-395 to Routes 1A, 46, and 9 — a path that has abrupt transitions in travel speed, roadway geometry, and capacity, as follows:

- I-395 is a principal arterial highway between I-95 in Bangor and Route 1A in the study area. I-395 is a controlled-access highway with two eastbound and two westbound lanes separated by an approximate 50-foot grass median. It connects to Route 1A in Brewer with a partial cloverleaf interchange. I-395 has a posted speed of 55 miles per hour (mph) and has a paved shoulder approximately 10 feet wide.
- Route 1A is a principal arterial highway connecting the greater Bangor and Brewer area with Ellsworth and the coast at Bar Harbor. West of the I-395 interchange, Route 1A has two eastbound lanes and two westbound lanes.

Logical termini are features such as cross-route locations that are considered rational end-points for a transportation improvement and that serve to make it usable.

A principal arterial highway is a highway found in both urban and rural areas that connects urban areas, international border crossings, major ports, airports, public transportation facilities, and other intermodal transportation facilities.

A controlled-access highway is a highway that provides limited points of access. Interstate highways are controlled-access highways in which access points occur only at interchanges.

Access Management

The 119th Maine Legislature approved LD 2550, An Act to Ensure Cost-Effective and Safe Highways in Maine. The purpose of the Act is to ensure the safety of the traveling public and protect highways against negative impacts of unmanaged access.

The Act specifically directs the MaineDOT and authorized municipalities to promulgate rules to ensure safety and proper access on all state and state-aid highways with a focus on maintaining posted speeds on arterial highways outside urban compact areas.

More information can be found at http://www.state.me.us/mdot/planning-process-programs/amprogram.php.

East of the I-395 interchange, Route 1A has one eastbound lane, one westbound lane, and a center turn lane from Brewer to approximately 1.3 miles east of the I-395 interchange. The remainder of Route 1A in the study area and to the coast has one eastbound and one westbound lane with no center turn lane. Route 1A is not a controlled access highway and access from its adjacent properties is subject to Maine's rules on access management. Route 1A in the study area is posted at 25 to 45 mph, depending on location, and has a paved shoulder approximately 6 feet wide. The land uses adjacent to Route 1A in the study area are primarily commercial and residential with some undeveloped and underdeveloped areas. Over time, the areas adjacent to Route 1A are becoming increasingly more commercial.

- Route 46 is a two-lane collector road connecting Route 1A to Route 9. Route 46 is not a controlled access highway and access from its adjacent properties is subject to Maine's rules on access management. Portions of Route 46 are steep and exceed the State of Maine's design criteria. Route 46 is posted at 35 or 45 mph and has a gravel shoulder approximately four feet wide. The land cover adjacent to Route 46 is primarily mature forested areas with scattered residences, a school, and open areas. Approaching Route 9, the land uses adjacent to Route 46 are primarily residential. Because of the mature forest canopy, considerable portions of Route 46 are shaded, and snow and ice cover does not melt rapidly.
- Route 9 is a two-lane principal arterial highway connecting the greater Bangor and Brewer area with Washington County and the Canadian Maritime Provinces to the east. Route 9 is not a controlled access highway and access from its adjacent properties is subject to Maine's rules on access management. Route 9 is posted at 35 or 55 mph with some school zones, depending on location in the study area, and has a paved shoulder approximately eight feet wide. The land uses adjacent to Route 9 in the study area are primarily commercial and residential with some undeveloped and underdeveloped areas. Over time, the areas adjacent to Route 9 are becoming increasingly more developed. To the east of the study area, the land uses and land cover adjacent to Route 9 quickly become less developed and more forested, and the speed limit increases to 55 mph. Most of the land adjacent to Route 9 east of the study area to the Canadian border is undeveloped.

The portions of Routes 1A and 46 in the study area do not provide a high-speed, controlled-access arterial highway between I-395 and Route 9 to the east. These two roads do not provide an operationally efficient transportation facility for regional connectivity and mobility through the study area. The results of these deficiencies in system linkage are safety concerns, delays in passenger and freight movement, and conflicts between local and regional traffic.

Safety Concerns

Locations in the study area exhibit higher crash rates than other locations in Maine with similar characteristics. Data were collected and analyzed to identify high crash locations (HCLs) using a critical rate factor (CRF). The CRF of an intersection or roadway section is a statistical measure of that location's crash history as compared to locations with similar geography, traffic volume, and geometric characteristics. When a CRF exceeds 1.00, the intersection or portion of a roadway has a higher-than-expected crash rate. Those locations with a CRF higher than 1.00 and more than eight crashes in a three-year period are considered HCLs. Data were collected and analyzed to identify HCLs in the study area. MaineDOT crash data for January 2004 through December 2008 indicate 10 HCLs that meet the criteria in the study area. The majority of crashes occurred on clear days with dry road conditions.

Traffic Congestion

Since the extension of I-395 from Bangor to Route 1A in 1986, traffic volumes in the study area have increased steadily. This growth has been most pronounced along Route 46 between Routes 1A and 9, which has become more widely used by both passenger vehicles and trucks as a connection among I-95, I-395, and Route 9. Much of the truck traffic in the study area is through-traffic. Most of the truck trips are between the Canadian Maritime Provinces and Washington County at the eastern end, and Penobscot County and the New England states at the western terminus of the trips. Approximately 80 percent of truck traffic on Route 9 uses Route 46, and approximately five of six heavy trucks that use Routes 46 and 1A also use I-395. Route 46 south of Route 9 exhibited the greatest annual growth rate (i.e., annual growth factor of 1.121) in heavy-truck traffic between 1983 and 1996 of all roads in the greater Bangor area.

Estimates of the current and future annual average daily traffic (AADT) for all vehicles and heavy trucks were determined based on MaineDOT traffic count data (exhibit S.3). In 2008, with the economic downturn and increase in the price of gas, traffic in the study area has not grown as fast as previously predicted. The MaineDOT and FHWA believe the growth in traffic and traffic volumes originally forecast for the study area for the year 2030 won't materialize until the year 2035. By 2035, traffic volumes on Route 46 between Routes

Exhibit S.3 – *Existing and Future Traffic*

Location	1998 AADT	2006 AADT	2010 AADT	2035 AADT	2010 Truck AADT	2035 Truck AADT	% Growth 1998–2035	Growth Per Year 1998–2035
Route 1A east of I-395	18,140	20,370	22,236	33,070	1,569	2,449	82%	2.57%
Route 1A west of Route 46	16,550	15,220	16,976	30,600	1,569	2,449	85%	2.65%
Route 1A east of Route 46	11,220	11,260	12,116	18,870	1,569	2,449	68%	2.13%
Route 46 south of Route 1A	1,920	1,870	2,021	3,130	265	281	63%	1.97%
Route 46 north of Route 1A	2,270	2,270	3,058	8,570	604	1,167	278%	8.67%
Route 9 east of Route 178	6,440	6,870	7,156	8,730	569	662	36%	1.11%
Route 9 west of Route 46	4,780	5,050	5,129	5,410	604	1,167	13%	0.41%
Route 9 east of Route 46	5,100	5,400	5,830	10,940	879	1,535	115%	3.58%

1A and 9 are forecasted to increase by approximately 6,300 vehicles.

The projected increases in traffic would lead to more traffic congestion. To help measure the traffic-congestion problem and the quality of traffic flow, the MaineDOT modeled existing (1998 and 2006) and future (2035) design hour volumes (DHVs) of traffic for three roadways in the study area: Routes 1A, 9, and 46. The DHV is the 30th highest hour of travel during a year at a given location; therefore, it accurately reflects the heaviest summer travel congestion. The MaineDOT used the DHVs to determine the volume-to-capacity (v/c) ratio, operating speeds, and overall level of service (LOS) for the following five roadway segments within the study area: (1) Route 1A east of the I-395 interchange and west of Route 46; (2) Route 1A east of Route 46; (3) Route 46 between Routes 1A and 9; (4) Route 9 east of Route 178 and west of Route 46; and (5) Route 9 east of Route 46.

The MaineDOT estimated the DHV, v/c ratios, LOS, and average travel speed of these roadway segments using peak season 1998 and 2006 travel conditions and forecasted peak season 2035 travel conditions (exhibit S.4). Route 1A east of the I-395 interchange and west of Route 46 is forecasted to decrease in service from LOS E in 1998 to LOS F by 2035. LOS F represents heavily congested flow with traffic demand exceeding capacity. Route 1A east of Route 46 is forecasted to decrease from LOS D in 1998 to LOS E by 2035. LOS

E is defined as traffic flow on two-lane highways having a time delay of greater than 75 percent. Passing under LOS E conditions is virtually impossible. LOS E is seldom attained over extended sections of level terrain on more than a transient condition; most often, small disturbances in traffic flow as LOS E is approached causes a rapid transition to LOS F.

The intersection of Routes 1A and 46 is a signalized intersection. This intersection serves traffic traveling to and from the areas of Downeast Maine and traffic to and from the Ellsworth area and the coast. In 1998, the overall performance of this intersection was estimated using peak-volume conditions at LOS B. By 2035, with increases in traffic volume and corresponding increases in delays, this intersection is forecasted to decline to an overall performance of LOS F. LOS F at a signalized intersection describes a control delay exceeding 80 seconds per vehicle. This LOS occurs when arrival flow rates exceed the capacity of the intersection.

In 1998, the delay on northbound Route 46 to the intersection of Routes 46 and 9 was estimated using peak-volume conditions to be 6.5 seconds (LOS A). By 2035, with increases in traffic volume, this delay is forecasted to increase to 119.4 seconds (LOS F).

Exhibit S.4 – *DHV, v/c Ratio, LOS, and Average Travel Speed for Roadways Segments*

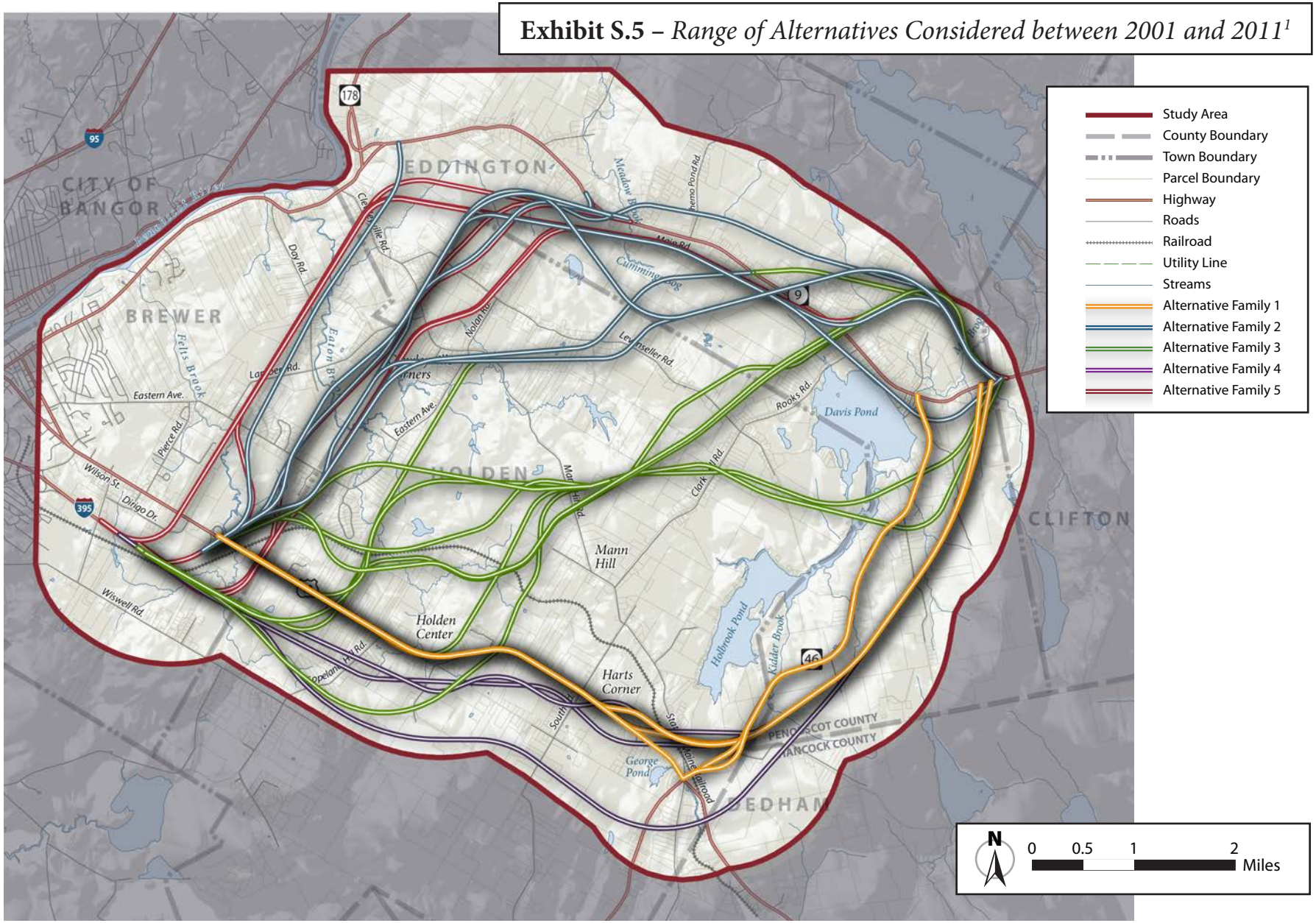
Year	DHV	v/c Ratio	Average Travel Speed (mph)	LOS Rural Two–Lane Road
Route 1A east of I-395				
1998	1,840	0.63	34.6	E
2006	2,001	0.69	33.2	E
2035	3,269	1.12	varies	F
Route 1A east of Route 46				
1998	1,282	0.43	44.1	D
2006	1,268	0.43	44.2	D
2035	2,123	0.72	37.5	E
Route 46 between Routes 1A and 9				
1998	244	0.14	45.1	C
2006	197	0.12	45.6	C
2035	1,006	0.40	40.8	D
Route 9 east of Route 178				
1998	641	0.27	41.2	D
2006	629	0.26	41.3	D
2035	873	0.36	39.5	E
Route 9 east of Route 46				
1998	505	0.20	43.9	D
2006	573	0.23	43.5	D
2035	1,267	0.46	39.3	E

Alternatives

From 2001 to 2011, the MaineDOT and the FHWA conceptually designed and analyzed the No-Build Alternative and more than 70 build alternatives that could potentially satisfy the study purpose and needs and the USACE basic project purpose (exhibit S.5). The build alternatives would be controlled-access highways and were conceptually designed using the MaineDOT design criteria for freeways.

Two lanes, one in each direction, would be constructed and used for two-way travel within an approximate

Exhibit S.5 – *Range of Alternatives Considered between 2001 and 2011*[1]



[1] ***Note:*** *Alternative alignments shown here have been grouped into families. For a detailed discussion of each family, please refer to Appendix C in the DEIS.*

200-foot-wide right-of-way. In designing and analyzing alternatives, the MaineDOT and the FHWA consulted with regulatory and resource agencies at the state and federal level, local officials, special-interest groups, the Public Advisory Committee (PAC), native American tribal governments and the public. At the end of the process of identifying, developing, analyzing, and screening alternatives, four alternatives, including the No-Build Alternative, were retained for further consideration and detailed study.

A screening process, undertaken in several stages, was established to systematically consider the wide range of potential alternatives and to identify a reasonable number to be retained for detailed analysis (see Appendix C of the Draft Environmental Impact Statement [DEIS]). The screening analysis considered alternatives that fit into five broad "families", as follows:

- **Family 1: The Upgrade Alternatives.** Widening and other improvements to Route 1A (from I-395 to Route 46) and Route 46 (from Route 1A to Route 9) approximately 10 miles long. Although one upgrade alternative was initially considered, six upgrade and five partial-upgrade alternatives were reviewed during the alternatives screening process.
- **Family 2: The Northern Alternatives.** Alternatives that began at the I-395/Route 1A interchange and generally proceeded in a northerly direction to connect with Route 9. These alternatives were five to 10 miles in length, depending on the distance on Route 9 used as part of the alternative. Twelve alternatives in this family were reviewed.
- **Family 3: The Central Alternatives.** Alternatives that began at or near the I-395/Route 1A interchange and generally proceeded east and west through the study area to Route 9 east of Route 46. These alternatives were seven to 11 miles in length, depending on the distance on Route 9 used as part of the alternative. Using all possible combinations of the six western components, the four eastern components, and component 3K, 36 possible central alternatives were initially created. Five other alternatives (for a total of 41) in this family were developed by modifying some of the initial 36 alternatives.
- **Family 4: The Southern Alternatives.** Alternatives that began near the I-395/Route 1A interchange and that were south of Route 1A and east of Route 46. These alternatives paralleled Routes 1A and 46, and intersected Route 9 in East Eddington. These alternatives were approximately 11 miles in length. Four alternatives were identified and considered: 4A, 4B, 4C, and 4D.
- **Family 5: Alternatives Paralleling Existing Utility Easements.** Alternatives that began at or

near the I-395/Route 9 interchange and proceeded in a northerly direction paralleling the utility easements (to the extent possible) to connect with Route 9 in East Eddington. These alternatives were approximately 11 miles in length. Eight alternatives in this family were reviewed.

The No-Build Alternative was fully developed to allow an equal comparison to the build alternatives and was carried through the screening process.

In 2001, the MaineDOT and the FHWA, using results of the preliminary impacts analysis, dismissed from further consideration 37 of the initial 45 alternatives because other alternatives were either less environmentally damaging, or they did not meet the purpose or all of the needs of the study. The analysis performed in 2001 retained an alternative from each family with the least adverse impact to the features and resources and resulted in the No-Build Alternative and seven alternatives.

The development and screening of alternatives continued through 2008. New alternatives, modifications of alternatives, and combinations of alternatives were considered. In 2004, alternatives were identified and developed parallel to the utility easements with the Bangor Hydro-Electric Company transmission lines noted as Family 5. The process of identifying, developing, and screening alternatives or modifying alternatives continued. In January 2008, seven new alternatives, including the No-Build Alternative, were preliminarily identified for further consideration, development and detailed study.

In December 2008, in a continued effort to avoid and minimize adverse impacts, six connectors between the three westernmost build alternatives were identified, developed, and analyzed.

The process of identifying, developing, and screening alternatives or modifying alternatives continued. New alternatives, modifications of alternatives, and combinations of alternatives were considered. In September and December 2010, meetings with the federal cooperating agencies took place, the purpose of which was to solidify the range of alternatives to be considered in detail (see Appendix C in the DEIS).

The following four alternatives were retained for further consideration and detailed study (exhibit S.6):

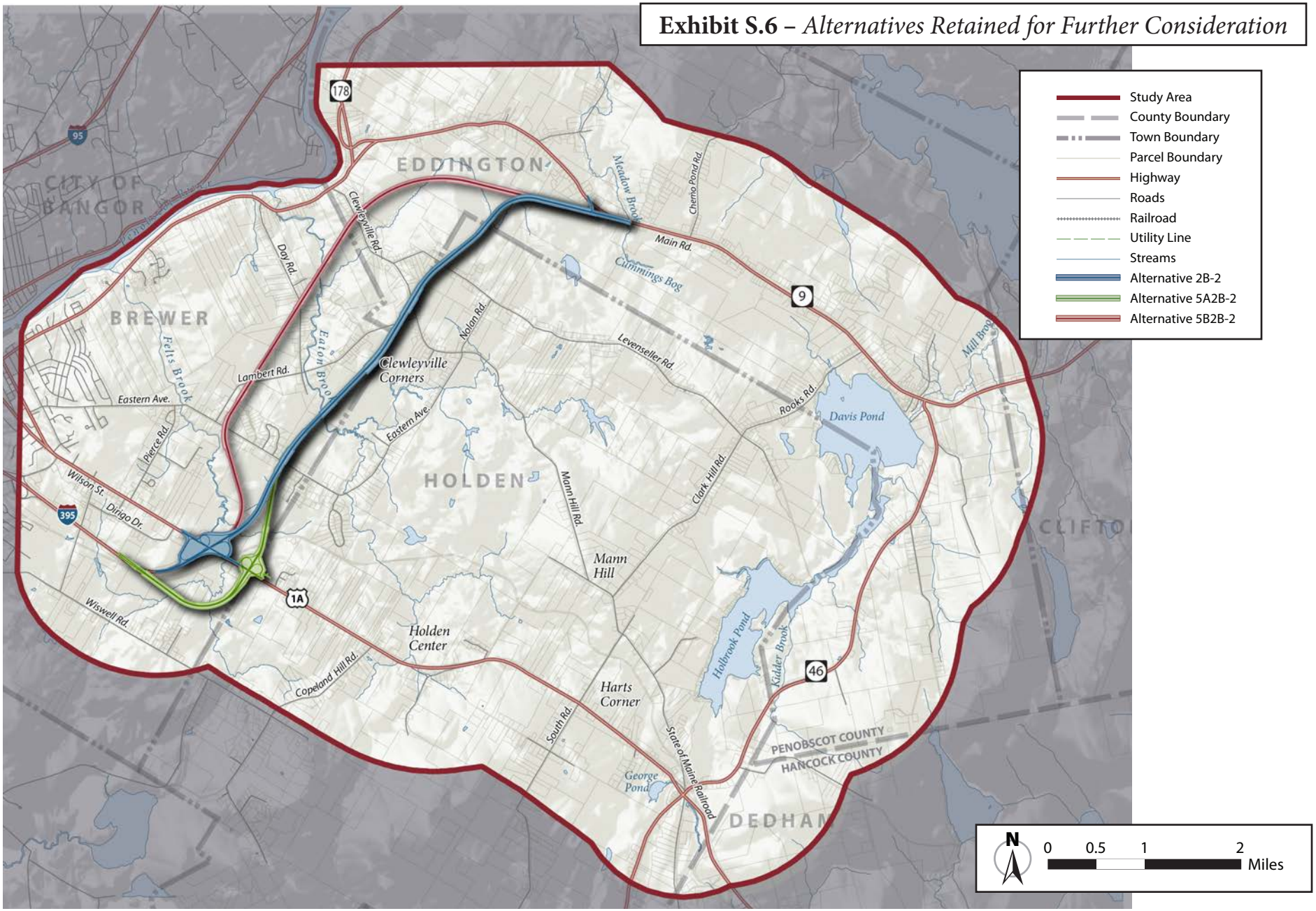
- No-Build Alternative
- Alternative 2B-2
- Alternative 5A2B-2
- Alternative 5B2B-2

The cooperating agencies concurred with this range of alternatives to be retained for detailed analysis.

The No-Build Alternative

The No-Build Alternative consists of maintenance and Transportation System Management (TSM)

Exhibit S.6 – *Alternatives Retained for Further Consideration*



improvements. Regular maintenance consists of surface and shoulder work, ditch, bridge, culvert maintenance, snow and ice removal, emergency maintenance, mowing, brush control and other vegetation management, maintenance of stormwater runoff and management systems, erosion repair, striping, sign installation, and guardrail replacement. TSM is a set of relatively low-cost measures to increase capacity and/or provide safety improvements on an existing transportation system. These measures typically include traffic-signal timing or phasing adjustments, designation of turning lanes at specific intersections or driveways, access-management improvements, and enhanced signage or markings. The No-Build Alternative serves as the baseline to which other alternatives can be compared. The No-Build Alternative proposes that there be no new construction or major reconstruction of the transportation system in the study area; regular maintenance to I-395 and Routes 1A, 46, and 9 would be continued at its present level; and the intersection of Routes 46 and 9 would be improved.

The No-Build Alternative would not satisfy the study's purpose and needs or the USACE's basic purpose as it would not improve regional mobility and system linkage; would not improve safety; and would not reduce traffic congestion. The No-Build Alternative is retained for detailed analysis to allow equal comparison to the build alternatives and to help decision makers understand the ramifications of taking no action. The impacts of the No-Build Alternative were fully developed for design year 2035 to demonstrate the full impact of taking no action. Comparing the build alternatives with the current and future No-Build Alternative is essential for measuring the true benefits and adverse impacts of the build alternatives considered in detail.

Alternative 2B-2

Alternative 2B-2 would continue north from the I-395 interchange with Route 1A, roughly paralleling the Brewer/Holden town line, and connect with Route 9 west of Chemo Pond Road. Route 9 would not be widened to four lanes. The existing I-395/Route 1A interchange would be used (to the extent possible) and expanded to become a semidirectional interchange. A semidirectional interchange reduces left turns and cross traffic; the only traffic movement that would require a left turn would be Route 1A south to Alternative 2B-2 north. The land required for the northern portion of the interchange is owned by the State of Maine.

Alternative 2B-2 would bridge over Felts Brook in two locations at the I-395 interchange. It would pass underneath Eastern Avenue between Woodridge Road and Brian Drive. Alternative 2B-2 would bridge over Eaton Brook, bridge over Lambert Road, pass underneath Mann Hill Road, and bridge over

Levenseller Road connecting to Route 9 at a "T" intersection. Route 9 eastbound would be controlled with a stop sign.

Alternative 2B-2 would further the study's purpose and satisfy the system linkage need in the near term (the year 2035). Alternative 2B-2 would be a controlled-access highway and conceptually designed using the MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an approximate 200-foot-wide right-of-way. Route 9 would not be improved, and it would not provide high-speed, limited access connection to the east of East Eddington village. It would satisfy the study need related to traffic congestion and safety. It would satisfy the USACE's basic purpose statement.

Alternative 5A2B-2

Alternative 5A2B-2 would start from I-395 for approximately one mile along the southern side of Route 1A in the town of Holden before turning northward, crossing over Route 1A and paralleling the Bangor Hydro-Electric Company utility easement to connect with Route 9 west of Chemo Pond Road (exhibit S.6). Route 9 would not be widened to four lanes. Alternative 5A2B-2 would connect to Route 1A with a modified diamond interchange, which would provide all traffic movements and require two left turns across traffic. A left-turn lane would be provided on Route 1A to 5A2B-2 north. The modified-diamond interchange design would reduce the amount of property that must be acquired.

Today, the current AADT along Route 9 in Eddington between the terminus of the Alternative 2B-2 and the Route 46 intersection is approximately 5,000 vehicles per day. The posted speed in this section of Route 9 is predominantly 45 mph, with 35 mph near the Route 46 intersection. Traffic on Route 9 can comfortably travel at the current posted speeds. This segment of Route 9 was constructed to a width that meets current National Highway System standards for 2-lane highways (12-foot travel lanes and 8-foot shoulders).

With Alternative 2B-2, the 2035 AADT along this segment of Route 9 is forecast to be approximately 12,000 vehicles per day. At that level of traffic flow, Route 9 can easily be maintained at the current posted speeds. There are many locations in Maine where AADTs of 15,000 to 17,000 are accommodated on 2-lane highways with 35-to-50 mph speeds. Many of these locations have more intense commercial development than Route 9 in Eddington. This indicates that traffic volume growth on Route 9 can be accommodated well beyond the year 2035.

As part of its planning process, MaineDOT regularly monitors traffic volume and traffic safety trends on all state highways, including Route 9. Traffic volumes are updated every three years, and crash data is reviewed annually to identify emerging conditions that would compromise safety and mobility. MaineDOT regulates development access to Route 9 through application of access management rules. These rules require a new development to provide safe access and maintain adequate mobility on the highway.

One way of maintaining safety and mobility along Route 9 as future development occurs is by establishing turn lanes where needed to minimize conflicts between turning traffic and through traffic. This treatment improves the safety of turns while maintaining or improving the flow of through traffic. There are examples in Maine where AADTs of 17,000 to 19,000 are accommodated on 3-lane highways (which have a 2-way left turn lane between the through lanes) with 40-to-50 mph speeds. Route 9 is adaptable ***within the existing Right-of-Way*** to this type of treatment, if conditions warrant.

With the capacity to accommodate much more than the forecasted traffic, the regular monitoring of safety and mobility conditions by MaineDOT, and the ability to accommodate additional development in a safe and efficient manner, the transportation benefits of Alternative 2B-2 should be sustainable well beyond 2035.

Alternative 5A2B-2 would bridge over Felts Brook in two locations at the I-395 interchange. It would pass underneath Eastern Avenue between Woodridge Road and Brian Drive. Alternative 5A2B-2 would bridge over Eaton Brook, bridge over Lambert Road, pass underneath Mann Hill Road, and bridge over Levenseller Road connecting to Route 9 at a "T" intersection. Route 9 eastbound would be controlled with a stop sign.

Alternative 5A2B-2 would further the study's purpose and satisfy the system linkage need in the near term (the year 2035). Alternative 5A2B-2 would be a controlled-access highway and conceptually designed using the MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an approximate 200-foot-wide right-of-way. Route 9 would not be improved, and it would not provide a high-speed, limited-access connection to the east of East Eddington village. It would satisfy the study need related to traffic congestion and safety. It would satisfy the USACE's basic purpose statement.

Alternative 5B2B-2

Alternative 5B2B-2 would continue north from the I-395 interchange with Route 1A before turning east and connecting with Route 9 west of Chemo Pond Road (exhibit S.6). Route 9 would not be widened to four lanes. The existing I-395/Route 1A interchange would be used (to the extent possible) and expanded to become a semidirectional interchange. The only traffic movement that would require a left turn would be Route 1A south to Alternative 5B2B-2 north. The land required for the northern portion of the interchange is owned by the State of Maine.

Alternative 5B2B-2 would bridge over Felts Brook in two locations at the I-395 interchange. It would bridge over Eastern Avenue to the immediate east of Lambert Road and bridge over Lambert Road. It would pass under Day Road and Chewleyville Road before turning east and connecting to Route 9 at a "T" intersection. Route 9 eastbound would be controlled with a stop sign.

Alternative 5B2B-2 would further the study's purpose and satisfy the system linkage need in the near term (the year 2035). Alternative 5B2B-2 would be a controlled-access highway and conceptually designed using the MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an approximate 200-foot-wide right-of-way. Route 9 would not be improved, and it would not provide a high-speed, limited-access connection to the east of East Eddington village. It would satisfy the study need related to traffic congestion and safety. It would satisfy the USACE's basic purpose statement.

Identification of a Preferred Alternative

During the study, it appeared that alternatives other than Alternative 2B-2 would best satisfy the study

purpose and needs. However, it became clear that 1) those alternatives would result in greater adverse environmental impacts than Alternative 2B-2, and 2) Route 9 had adequate capacity and would continue to operate at an acceptable level of service and operating speed up to and beyond the year 2035 (the time period that has been determined to be reasonably foreseeable). A preferred alternative that best satisfies the study purpose and needs with the least adverse environmental impact was not identified prior to the identification of Alternative 2B-2 as the preferred alternative in the DEIS.

On three occasions during the study, Alternative 2B-2 (including earlier versions Alternative 2B and 2B-1) was tentatively dismissed from the range of reasonable alternatives considered for satisfying the study purpose and needs only to be added back to the range of alternatives considered. On each occasion, MaineDOT, in consultation with the PAC, tentatively dismissed it (pending concurrence from the Federal and state regulatory and resource agencies) and, in subsequent discussions with the Federal cooperating agencies, reconsidered it because it was practical and resulted in less adverse environmental impacts than other alternatives.

After careful consideration of the range of alternatives developed in response to the study's purpose and needs and in coordination with its cooperating and participating agencies, MaineDOT and the FHWA identified Alternative 2B-2 as their preferred alternative because it best satisfies the study purpose and needs, would fulfill their statutory mission and responsibilities, and has the least adverse environmental impact between the present time and the design year 2035. In identifying Alternative 2B-2 as their preferred alternative, MaineDOT and the FHWA have identified the environmentally preferable alternative because it best meets the purpose and needs for the study; causes the least damage to the biological and physical environment; and best protects, preserves, and enhances the historic, cultural, and natural resources of the study area.

Alternative 2B-2 was identified on July 31, 2013 as the Least Environmentally Damaging Practicable Alternative (LEDPA) by the USACE (see Appendix B), and as such the alternative that could receive a permit from the USACE.

Impacts to the Natural and Social Environment

A study area of approximately 34,416 acres encompassing the range of reasonable alternatives was identified, and a detailed analysis of the natural, social, and economic features of the study area was performed. The study area covers not only the land that would be used for the build alternatives but also the areas that would experience direct, indirect, and cumulative impacts from them.

The No-Build Alternative would adversely impact the study area by failing to reduce traffic backups on Routes 1A, 9, and 46; failing to address safety problems at 10 HCLs; and negatively impacting the community character of Brewer, Holden, and Eddington by not reducing heavy traffic in the study area. Traffic congestion in the study area is projected to worsen under the No-Build Alternative.

From a broad perspective, the build alternatives retained for further consideration are quite similar. They would begin in the same area of I-395 and Route 1A near the Brewer/Holden town line, carry traffic north, and connect with Route 9 in Eddington. The build alternatives would have considerable beneficial impacts to the study area and region. Each alternative would have similar positive impacts to mobility and congestion on Routes 1A, 9, and 46. The build alternatives would have the added benefit of improving safety throughout the study area and region.

Although the majority of the potential adverse impacts from the build alternatives are similar, a few distinct differences exist (exhibits S.7, S.8, and S.9).

The build alternatives would not substantially impact the physical geography; climate; geological resources; sand and gravel aquifers; wild and scenic rivers; groundwater; essential fish habitat; state endangered or threatened species; other protected species; tribal trust lands; communities; public properties; population, demographics, and labor force; community characteristics and conditions; minority and disadvantaged populations; sites containing uncontrolled petroleum and hazardous wastes; historic resources; archaeological resources; and traditional cultural properties.

The Endangered Species Act (ESA) provides protection for those species that are listed as endangered or threatened under the ESA. Section 7 of the ESA requires that the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) work with other federal agencies to achieve conservation and recovery of listed species and ensure proposed actions do not result in jeopardy to listed species or result in destruction or adverse modification to critical habitat. "Critical habitat" is a term defined and used in the ESA to designate a specific geographic area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but would be needed for its recovery.

There are three species of diadromous fish in the study area listed under the ESA. These species are the Atlantic sturgeon, which is listed as a threatened species, the shortnose sturgeon, which is listed as an endangered species, and the Atlantic salmon, which is listed as an endangered species with designated critical habitat in the study area (NOAA, NMFS 2012). In accordance with the January 2014 Section 7 Programmatic Agreement between FHWA, USACE, MaineDOT, USFWS and NMFS, MaineDOT determined that while the federally threatened Atlantic sturgeon and federally endangered shortnose sturgeon are known to occur within the study area, they are not present within the

Exhibit S.7 – *Direct Impacts of Alternatives*

Alternatives	Physical and Biological																Land Use				
				Streams																	
	Wetlands (acres)	Roadway contaminants within 100 feet[1] (acres)	Roadway contaminants within 160 feet[2] (acres)	Bridges and culverts/feet	Roadway contaminants within 100 feet[1] (acres)	Roadway contaminants within 160 feet[2] (acres)	Sediments within 3,300 feet[2] acres)	Floodplains (acres)	Vernal pools[3]/ dispersal habitat[4] (acres)	Waterfowl and wading bird habitat (acres)	Deer-wintering areas (acres)	Federally-Listed Endangered Species	Vegetation (acres)	Undeveloped habitat	Area to be acquired (acres)	Historic Properties	4(f) Properties	Residential displacements[5]	Business displacements[6]	Business impacts[7]
No-Build	-	17	64	-	0.3 ac. (17,000 sq. ft.)	0.7 ac. (29,000 sq. ft.)	12 ac.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Impacts from maintenance activities			Impacts from maintenance activities									Impacts from maintenance activities								
2B-2/the Preferred Alternative	26	31	66	5 bridges 1 culvert/ 212 feet	0.9 ac. (39,100 sq. ft.)	1.8 ac. (78,300 sq. ft.)	13 ac.	10	1/17	9 acres along Eaton Brook and its tributaries	-	Yes	103	Eliminates two blocks; fragments three blocks	163	No	No	8	-	-
5A2B-2	31	34	71	5 bridges 1 culvert/ 212 feet	0.6 ac. (24,300 sq. ft.)	1.5 ac. (63,000 sq. ft.)	18 ac.	2	1/25	20 acres along Felts Brook and 9 acres along Eaton Brook	-	Yes	136	Eliminates two blocks; fragments four blocks	215	No	No	16	Brewer Fence Company, Eden Pure Heaters, Mitchell's Landscaping and Garden Center, Town 'N Country Apartments	-
5B2B-2	30	30	80	6 bridges 1 culvert/ 222 feet	1.0 ac. (43,700 sq. ft.)	2.0 ac. (90,000 sq. ft)	17 ac.	11	1/8	3 acres along a tributary to Eaton Brook	3 acres along a tributary to Eaton Brook	Yes	102	Fragments four blocks	186	No	No	6	Bangor Hydro-Electric Co. Building, Maritimes and Northeast Pipeline Compressor Station	-

Notes:

Primary road contaminants are salt and lead.

No-Build Alternative consisted of Route 1A from I-395 to Route 46, and Route 46 from Route 1A to Route 9.

[1]Source: USACE New England District, "Compensatory Mitigation Guidance" , 2010.

[2]Source: Maine Audubon Society, "Conserving Wildlife On and Around Maine's Roads", 2007.

[3]All vernal pools are insignificant.

[4] Upland habitat within 250 ft.

[5] The taking of a residence

[6] The taking of a business

[7] An impact to the business without the taking of the business

Exhibit S.8 – *Indirect Impacts of Alternatives*

Resources		Distances (feet)		Alternative Indirect Impacts (acres)							
		Upslope/ Upwind	Downslope/ Downwind	No-Build Alternative[4] Upslope	No-Build Alternative[4] Downslope	2B-2/the Preferred Alternative Upslope	2B-2/the Preferred Alternative Downslope	5A2B-2 Upslope	5A2B-2 Downslope	5B2B-2 Upslope	5B2B-2 Downslope
Soils		Erosion could affect water quality in surface waters.									
Surface Waters	Contaminants	160[1]		0.7		1.8		1.5		2.0	
	Sediments	0[1]	3,300[1]	12		0	13	0	18	0	17
Groundwater		No indirect impacts									
Aquatic Habitat and Fisheries		160[1]		0.7		1.8		1.5		2	
Vernal Pools	Area	250[2]		54		17		25		8	
	Percent Forested			25 (46%)		10 (60%)		20 (78%)		7 (83%)	
	Percent Wetland			17 (31%)		8 (47%)		20 (80%)		4 (50%)	
	Percent Upland			37 (69%)		9 (53%)		5 (20%)		4 (50%)	
	Area	750[2]		480		278		395		146	
	Percent Forested			254 (53%)		175 (63%)		233 (59%)		101 (69%)	
	Percent Wetland			101 (21%)		109 (39%)		177 (45%)		49 (34%)	
	Percent Upland			379 (79%)		169 (61%)		218 (55%)		97 (66%)	
Floodplains		0	100[3]	0	1	0	11	0	5	0	15
		160[1]		4		22		8		28	
Wetlands		0	100[3]	0	17	0	31	0	34	0	30
		160[1]		64		66		71		80	
Vegetation	Contaminants	160[1]		164		232		252		202	
	Nitrogen enrichment and altered vegetation	160[1]	330[1]	95	187	88	292	92	312	116	240
	Invasive species	660[1]	3,300[1]	753	3,920	329	4,407	398	4,346	498	2,944
Wildlife	Large mammals	160[1]	330[1]	0	0	74	128	69	173	89	103
	Grassland birds	330[1]	660[1]	0	80	146	250	136	334	178	204
	IWWH	0	100[3]	0	2	0	10	0	19	0	4
Wildlife Habitat		660[1]	3,300[1]	84	2,189	278	1,416	255	1,669	423	893

Notes:

[1]Source: Maine Audubon Society, "Conserving Wildlife On and Around Maine's Roads", 2007.

[2]Source: USACE, New England District, "Compensatory Mitigation Guidance", 2010.

[3] USEPA, 2010

[4] No-Build Alternative consisted of Route 1A from I-395 to Route 46, and Route 46 from Route 1A to Route 9.

Exhibit S.9 – *Cumulative Effects for the Build Alternatives*

Alternative	Surface Waters	Floodplains (acres)	Wetlands (acres)	Forest Vegetation (acres)	Wildlife Habitat (acres)
2B-2/the Preferred Alternative	4,900 feet of streams; unknown impacts from stormwater runoff.	26	182	602	873
5A2B-2	5,000 feet of streams; unknown impacts from stormwater runoff.	18	187	636	924
5B2B-2	4,800 feet of streams; unknown impacts from stormwater runoff.	27	188	602	556

action area and therefore, determined the proposed action would not have an effect on these species. Also in accordance with the Section 7 Programmatic Agreement, MaineDOT determined that Atlantic salmon and its designated critical habitat were present within the study area and the action area and therefore, would require consultation with the USFWS.

On October 2, 2013, the northern long-eared bat (NLEB) was proposed for listing under the ESA by the USFWS. Critical habitat for the NLEB is not currently designated.

Following the circulation of the DEIS, MaineDOT prepared a Biological Assessment (BA) for the FHWA for the proposed project in compliance with Section 7 of the ESA. FHWA formally consulted with the USFWS under Section 7 of the ESA for effects of eight proposed crossings of perennial and intermittent streams for Alternative 2B-2/Preferred Alternative on the Atlantic salmon, Atlantic salmon critical habitat, and the NLEB. One of these crossings is approximately 2,000 feet upstream of a historically inaccessible natural barrier and would have no permanent or temporary effects on Atlantic salmon or Atlantic salmon designated critical habitat. In addition, because final design for Alternative 2B-2/Preferred Alternative has not started, final plans, sizes, and types of crossing structures have not been determined (MaineDOT, 2013a).

The BA concluded that because the Penobscot River would not be affected directly or indirectly by the build alternatives, there would be no effect on Atlantic sturgeon and shortnose sturgeon. However, the build alternatives may affect, and are likely to adversely affect, Atlantic salmon and Atlantic salmon critical habitat because:

- Suitable Atlantic salmon migratory habitat is present in the study area.
- Pile driving activities and installation of cofferdams would have the potential to 'take' a species in the area of the project due to noise,

sedimentation, turbidity effects and the potential entrapment of a salmon inside a cofferdam and creation of a temporary passage barrier.

- Upstream and downstream passage could be blocked during construction of the crossing structures. Downstream migration may still be available if a bypass channel is utilized as part of the cofferdam. To minimize this, cofferdams would be removed immediately after completion of the crossing structures.
- Once constructed the proposed project would maintain full access to potential rearing habitat upstream of all crossing structures.

The BA concludes that the proposed project would not jeopardize the continued existence of the NLEB for the following reasons:

- The amount of forested clearing represents a very small fraction of forest available to NLEB
- The proposed project is not located near known hibernacula
- The type of project proposed is not one identified by USFWS as being most likely to result in lethal impacts or significant adverse effects to NLEB.

MaineDOT and FHWA are required to and would re-initiate Section 7 consultation with the USFWS when the NLEB and/or its critical habitat become officially listed under the ESA.

The Federal ESA requires that Federal agencies consult with the USFWS and/or NMFS to determine if actions of an agency would have any effect on species listed under the ESA and to avoid any actions that may jeopardize the continued existence of the species or result in the destruction or adverse modification of designated critical habitat. The formal consultation process is concluded when USFWS issues a biological opinion (BO) that makes a determination of effect that includes terms and conditions of approval, a statement for potential incidental 'take' of the species, and conservation recommendations.

New information regarding the NLEB will be available and published in the Federal Register in April 2015 requiring further ESA section 7 conferencing or consultation for potential NLEB effects not addressed in the BA or the USFWS's BO.

In the BO issued on September 19, 2014, the USFWS concluded that the I-395/Route 9 connector would not jeopardize the continued existence of the NLEB due primarily to the minimal amount of potentially suitable habitat that would be permanently impacted relative to the total habitat area available (USFWS, 2014).

After considering the current status of Atlantic salmon and its designated critical habitat, the project's environmental baseline, the effects of the proposed

project, and the potential for future cumulative effects in the study area, the USFWS concluded the I-395/Route 9 connector is not likely to jeopardize the continued existence of the Atlantic salmon throughout all or a significant portion of its range (USFWS, 2014).

The I-395/Route 9 connector would result in short-term adverse effects to Atlantic salmon and its critical habitat during construction activities. These effects are small in scope and in some cases would be reversed upon completion of construction. Construction activities are expected to result in adverse effects of up to 40 juvenile Atlantic salmon and no adult Atlantic salmon. Many of the construction-related adverse effects to Atlantic salmon are not expected to result in mortality, but rather temporarily affect normal behavior through capture and relocation to another part of the stream or blocked access to upstream or downstream habitat that results in temporary disruption of normal activities (USFWS, 2014).

The USFWS concluded that critical habitat, including the habitat upstream of the I-395/Route 9 connector on Felts and Eaton Brooks and their tributaries, would function as suitable and unimpaired after construction is complete and these streams would continue to serve a conservation and recovery role for Atlantic salmon (USFWS, 2014).

Estimated Construction Costs

The estimated construction costs of alternatives include the costs of preliminary engineering, construction engineering, utility relocation, acquisition of property for right-of-way, and mitigating environmental impacts. The costs of the build alternatives would range between approximately $61 million and $81 million (in 2011 dollars).

Areas of Controversy

The I-395/Route 9 transportation study has attracted substantial local interest since the beginning of the scoping process for the Environmental Assessment (EA) in 2000. On October 11, 2005, the I-395/Route 9 Transportation Study was elevated to an EIS by the FHWA because of the potential impacts to wetlands, unfragmented habitat, the potential difficulty in compensating for those impacts, and the potential impacts to the human environment.

Additional Actions Required

There are two primary issues to be resolved. The first is that MaineDOT must obtain permits from the USACE, a Natural Resources Protection Act permit from the Maine Department of Environmental Protection, and a Section 401 Water Quality Certification; for the second, MaineDOT would need to work with the affected municipalities to develop a corridor-preservation plan to protect the selected corridor from further development.

Section 404 of the CWA regulates the discharge of dredged or fill material into waters of the United States,

including wetlands. Section 404 requires a permit from the USACE before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from regulation (e.g., certain farming and forestry activities). The Section 404(b)(1) guidelines provide guidance to the USACE for issuing permits; compliance with the Section 404(b)(1) guidelines is required for the issuance of a permit. The Section 404(b)(1) guidelines require the selection of the LEDPA. Critical to the selection of the LEDPA is the recognition of the full range of alternatives and impacts in determining which alternatives are (1) practicable and (2) environmentally less damaging. The USACE identifies the LEDPA following its review of the preliminary permit application and completion of its public-interest finding.

The MaineDOT and the FHWA prepared a preliminary permit application in accordance with Section 404 of the CWA for the range of alternatives retained for further consideration, and it was submitted to the USACE. The USACE identified Alternative 2B-2 as the LEDPA. A mitigation plan for impacts to waters of the U.S. would be developed during final design.

A NRPA Permit is required from the Maine Department of Environmental Protection for projects in, on, over, or adjacent to protected natural resources. Protected resources are coastal wetlands, great ponds, rivers, streams, significant wildlife habitat, and freshwater wetlands.

Section 401 of the CWA regulates the discharge of dredged or fill materials into waters. A Section 401 Water Quality Certification is required from the MDEP to ensure that the project would comply with state water-quality standards. Typically, the Section 401 Water Quality Certification would be issued concurrently by the Maine Department of Environmental Protection with the NRPA Permit.

The portion of the study area in the city of Brewer is within the state's statutory coastal zone and subject to the provisions of the Coastal Zone Management Act (CZMA) of 1972 and the Maine CZM Program. The Maine Department of Agriculture, Conservation and Forestry administers the Maine Coastal Program. For efficiency, consistency reviews and determinations are rendered following the review and approval of state permit applications. This project would require a NRPA Permit issued by the MDEP and would require a CZM Consistency Determination issued with the NRPA Permit.

If a build alternative is selected for construction, the MaineDOT would work with the affected municipalities to develop a corridor-preservation plan to protect the selected corridor from further development. Methods to protect the corridor include development of zoning and local ordinances and selective acquisition of properties as they become available for sale or for further development. The MaineDOT may fund these property acquisitions through its customary programming of state and federal

highway-funding mechanisms. Property acquisitions and residential or business relocations would be in accordance with state and federal laws dictating the acquisition of property for highway purposes.

Once the MaineDOT has a system in place to protect the selected corridor, it would work with regional interests to develop support for a funding plan. In recent years, many states have found that state highway funds, bonding, and federal core apportionments are needed to maintain the system as it exists, with little remaining in additional funds for new capacity projects. Therefore, the MaineDOT would devise funding strategies for property acquisition and, ultimately, construction of the selected build alternative. If the No-Build Alternative is selected, the MaineDOT would continue to work with local and regional authorities to maintain—to the extent possible—the safety and efficiency of Routes 1A, 9, and 46 in Brewer, Holden, and Eddington.

Additionally, MaineDOT submitted an Interstate Modification Report to FHWA in October 2012 which received conceptual approval in February 2013. Final approval of the Interstate Modification Report cannot occur until after the process for complying with the National Environmental Policy Act is completed.

Circulation of the DEIS and Summary of Substantive Comments

The MaineDOT and the FHWA announced the availability of the I-395/Route 9 Transportation Study DEIS on March 23, 2012 (Federal Register, Vol. 77, No. 57). A 60-day comment period immediately followed, during which MaineDOT and FHWA invited Federal, State and local agencies, Tribes, organizations, and individuals to submit comments on the I-395/Route 9 Transportation Study DEIS. The MaineDOT and FHWA received 11 comment letters (some with attachments), seven comment forms (some with attachments), 79 comment e-mails and one petition.

Two open houses and a public hearing were held during the 60-day comment period. The first open house was on April 4, 2012 at the Brewer Auditorium and the second open house was on May 2, 2012 at the Eddington Town Office. The purposes of the two open houses were to 1) meet with people with an interest in the study to answer questions about the study and, 2) receive suggestions for further avoidance and minimization of potential impacts from the build alternatives and ways to improve the analysis of alternatives prior to decision-making. The Public Hearing was held on May 2, 2012 at the Eddington School and a transcript of the hearing was prepared. Nineteen attendees offered comments during the public hearing. The purpose of the public hearing

was for the public to offer comments on the DEIS prior to preparation of the FEIS and decision-making; the public hearing was not a question and answer session. The public comment period on the I-395/Route 9 Transportation Study DEIS closed on May 15, 2012.

The MaineDOT submitted a preliminary permit application in accordance with Section 404 of the Clean Water Act to the U.S. Army Corps of Engineers. In response to the preliminary permit application, the U.S. Army Corps of Engineers issued their public notice soliciting comments on the study and range of issues addressed in the DEIS. The comment period on the preliminary permit application closed on May 17, 2012. The following is a list of the predominant themes, questions and concerns raised in comments on the DEIS:

- Route 9 is unsafe and would become more unsafe if Alternative 2B-2 is constructed
- Traffic on Route 9 is already heavy and traffic on Route 9 would increase if Alternative 2B-2 is constructed
- Truck traffic on Route 46 is heavy and Route 46 is unsafe for trucks to use
- We don't understand why impacts to vernal pools are considered more seriously than the displacement of peoples houses
- Is the I-395/Route 9 connector needed given the discussions of the private tolled East-West Highway?
- The build alternatives impact streams that contain Atlantic salmon
- Why didn't Alternative 2B-2 previously meet the study purpose and needs and now it does?
- Alternative 2B-2 is too expensive to construct
- The DEIS fails to consider recent changes to the zoning in Eddington
- The DEIS does not use the most current map of snowmobile trails
- Several new homes have been constructed that would be displaced by Alternative 2B-2 and are not shown in the DEIS
- How are the towns going to make up for the loss of tax revenue?
- We don't understand how a two-lane connector road will operate satisfactorily until at least 2035
- How will the connector impact emergency services and have the emergency service providers approved the connector as planned?
- Will Route 46 remain a state road or will it be given to the towns of Holden and Eddington?

All of these questions and concerns are addressed throughout the FEIS and in the Responses to Substantive comments in Appendix A. After reviewing the study and the comments on the study, the USACE identified Alternative 2B-2, MaineDOT's and FHWA's Preferred Alternative, as the LEDPA.

Contents

Exhibits

Glossary

affected environment – The physical features and land area(s) to be influenced or impacted by an alternative alignment under consideration. This term also includes various social and environmental factors and conditions pertinent to an area.

agency coordination – A general term referring to the process whereby government agencies are afforded an opportunity to review and comment on transportation proposals.

alignment studies – A general term describing engineering work involving the vertical and horizontal positioning, adjusting, and refining, as well as comprehensive evaluation of possible connectors through a selected study corridor and considering all relevant features, controls, travel desires, impacts, benefits, and costs. Alignment studies are typically performed to assess the relative feasibility of a proposed transportation facility.

alternative – One of a number of specific transportation-improvement proposals, alignments, options, design choices, and so forth in a defined study area. For a transportation project, alternatives to be studied typically include the No-Build Alternative, an upgrading of the existing roadway alternative, new transportation routes and locations, transportation systems management strategies, multimodal alternatives (if warranted), and any combinations of these.

archaeologically sensitive surficial deposits – Land forms that are likely locations of prehistoric settlements or gathering places, based on a Maine Historic Preservation Commission (MHPC) predictive model that uses surficial geology (i.e., water bodies, alluvium, lake-bottom deposits, glacial outwash, and eskers) to assess sensitivity.

arterials – Roads with high traffic volumes that provide linkage among major cities and towns and developed areas, capable of attracting travel over long distances. Basically, arterials provide service to interstate and

inter-county travel demand. The arterial system typically provides for high travel speeds and the longest trip movements. The degree of access control on an arterial may range from full control (i.e., freeways) to entrance control (e.g., on an urban arterial through a densely developed commercial area).

at-grade – The intersection of two roads, or a road and a railway, that cross at the same elevation.

at-risk watershed – Watersheds contributing to water bodies that are at risk of eutrophication due to new development and phosphorus-laden runoff. These water bodies include public drinking-water supplies and waters that currently exhibit algal blooms or other signs of eutrophication. At-risk watersheds are defined according to criteria in the State of Maine Stormwater Law (5 MRSA § 3331).

attainment area – A geographic area in which levels of a criteria air pollutant meet the health-based primary standard (i.e., National Ambient Air Quality Standard) for the pollutant. Attainment areas are defined using federal pollutant limits set by the U.S. Environmental Protection Agency.

avoidance alternative – A general term used to refer to any alignment proposal that has been developed, modified, shifted, or downsized to specifically avoid impacting one or more resources.

Beginning with Habitat Program – A collaborative program of federal, state, and local agencies and nongovernmental organizations. It is a habitat-based approach to conserving wildlife and plant habitat on a landscape scale managed by the Maine Department of Inland Fisheries and Wildlife.

Best Management Practices – Structural and/or management practices employed before, during, and after construction to protect receiving-water quality. These practices provide techniques to either reduce soil erosion or remove sediment and pollutants from surface runoff.

biodiversity – The diversity of genes, species, and ecosystems. This term includes the entire hierarchy of ecological organization and encompasses regional ecosystem diversity (i.e., landscape diversity), local ecosystem diversity (i.e., community diversity), species diversity, and genetic diversity within populations of a species.

biological assessment (BA) – the information prepared by or under the direction of the Federal agency concerning listed and proposed species and designated and proposed critical habitat that may be present in the

action area and the evaluation potential effects of the action on such species and habitat.

biological opinion (BO) – the document that states the opinion of the U.S. Fish and Wildlife Service or National Marine Fisheries as to whether or not the Federal action is likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat.

carbon monoxide (CO) – A colorless, odorless, tasteless gas formed in large part by incomplete combustion of fuel. Fuel-combustion activities (e.g., transportation, industrial processes, and space heating) are the major sources of CO.

CEQ Regulations – Directives issued by the Federal Council on Environmental Quality, published in 40 CFR 1500-1508, which governs the implementation of the National Environmental Policy Act and the development and issuance of environmental policy and procedure for federal actions by public agencies. The regulations contain definitions, spell out applicability and responsibilities, and mandate certain processes and procedures for state agencies with programs that utilize federal-aid funds.

collector roads – Roads characterized by a roughly even distribution of their access and mobility functions. These routes gather traffic from local roads and streets and deliver it to the arterial system. Traffic volumes and speeds are typically lower than those of arterials.

comment period – The duration of time during which written comments or responses may be submitted to an agency that has distributed a document for review and comment. It can be applicable to all types of documents that are circulated as well as to formal presentations, such as those that may be given by transportation-department officials at a public hearing.

community water supply – A public water system that serves at least 25 residents throughout the year; consists of one or multiple wells or reservoirs.

conceptual design – idea or feasibility phase of the design process during which various alternatives are developed and tested. During this phase, various environmental and engineering issues are identified and accounted for prior to advancing a range of alternatives into the preliminary and final design phases.

conceptual mitigation – The early, generalized identification of design, operational, construction, or other measures considered to avoid, minimize, or compensate for anticipated environmental consequences. Typically, conceptual mitigation

represents ideas discussed before the concluding stages of an environmental study.

concurrence – Determination by an agency that information to date is adequate and a project can advance to the next stage of project development.

conference – a process which involves informal discussions between a Federal agency and the U.S. Fish and Wildlife Service or National Marine Fisheries under section 7(a)(4) of the Endangered Species Act regarding the impact of an action on proposed species or proposed critical habitat and recommendations to minimize or avoid the adverse effects.

connector – A highway or roadway that connects to another highway or roadway.

construction phase – The phase of the transportation project development process that entails the physical act of building by a contractor of the proposed project according to all plans and specifications developed during final design.

controlled-access facility – A highway where access to abutting properties is restricted or limited by control of the right-of-way.

controlled-access highway – A highway that provides limited points of vehicle access; access is permitted only at interchanges and intersections. Freeways, such as I-395, are controlled-access highways in which access points occur only at interchanges. These highways serve mobility needs and are designed to accommodate higher travel speeds.

cooperating agency – Any organization, other than the lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed action.

cost effectiveness – An economic measure used to evaluate and compare the corridors of a study. Cost effectiveness is defined as the present value of a gross regional product growth per dollar of construction cost. In this way, cost effectiveness compares the relative future economic benefits to the size of the investment required to generate those benefits.

critical habitat – specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

cumulative impacts – Impacts on the environment that result from the incremental impact of a project

when added to other past, present, and reasonably foreseeable future actions regardless of which agency or person undertakes other such actions; required under the National Environmental Policy Act (NEPA) by the Council on Environmental Quality (CEQ).

daily traffic volume – The number of vehicles that use a given roadway in both directions during a 24-hour period.

dB – Decibel, a unit of measurement of sound level. Expresses relative difference in power or intensity, usually between two acoustic or electric signals, equal to 10 times the common logarithm of the ratio of the two levels.

dBA – An abbreviation for A-weighted decibel. A decibel is a unit used to describe sound-pressure levels on a logarithmic scale. For a community noise-impact assessment, an A-weighted frequency filter is used to approximate the way humans hear sound.

deciduous – Refers to woody vegetation, such as oak or maple trees, that shed their leaves after the growing season.

deer-wintering area – Areas of softwood-dominated forest that provide food resources and shelter for deer during severe winter conditions.

demand – Vehicular traffic demand (i.e., volume) on a given highway segment, expressed in vehicles per day.

demand shift – The change in demand (i.e., volume) on a given highway segment, expressed in vehicles per day. Demand shifts can be caused by new corridors that provide a faster and/or shorter travel route.

design hour volume (DHV) – The hour used for geometric design of highways, typically the 30th highest traffic volume of the year.

destruction or adverse modification – a direct or indirect alteration that appreciably diminishes the conservation value of critical habitat for listed species. Such alterations may include, but are not limited to, effects that preclude or significantly delay the development of the physical or biological features that support the life-history needs of the species for recovery.

direct impacts – The immediate effects on the social, economic, and physical environment caused by the construction and operation of a highway. These impacts are usually experienced within the right-of-way or in the immediate vicinity of the highway or another element of the proposed action.

disadvantaged population – A group of people, living in one area, that has a median income below the federal poverty level or that exhibits other indicators of economic disadvantage.

displacement – The act of removing businesses, people, or households from structures for transportation right-of-ways.

Draft Environmental Impact Statement (DEIS) – The document prepared by the Federal Highway Administration (FHWA) in accordance with FHWA National Environmental Policy Act regulations (23 CFR Part 771). These regulations require that the DEIS evaluate all reasonable alternatives considered; discuss the reasons that alternatives have been eliminated from detailed study; and summarize the studies, reviews, consultations, and coordination required by environmental laws and Executive Orders.

early coordination – Communication undertaken near the beginning of a transportation-study development process to exchange information and work cooperatively with agencies and the public in an effort to determine the type and scope of studies, level of analysis, and related study requirements.

edge habitat – An area along a transitional zone between two or more vegetation cover types that provide feeding, breeding, nesting, and/or cover habitat for wildlife.

endangered species – Any species that is in danger of extinction throughout all or a significant portion of its range (in reference to the Endangered Species Act [16 USC Chapter 35 Section 3(6)] and the Maine Endangered Species Act).

engineering – A general term that refers to the systematic analysis and development of measurable physical data using applied mathematical, scientific, and technical principles to yield tangible end products that can be made, produced, and constructed.

environment – The complex of social, natural, and cultural conditions that are present in the physical surroundings.

Environmental Assessment (EA) – A document prepared for federal actions that are not categorical exclusions and that do not clearly require an Environmental Impact Statement (EIS). An EA provides the analysis and documentation to determine if an EIS or a Finding of No Significant Impact (FONSI) should be prepared.

environmental baseline – An inventory or summary assessment of environmental features present in a study area, typically conducted during systems planning or early project development. This activity is used to provide environmental-impact information as a basis for developing alternatives.

environmental feature – A general term to denote resources or objects located in or adjacent to an existing or proposed transportation corridor. Features may include natural or physical resources, important structures, community facilities, topographic features, and certain other land uses.

environmental justice – Executive Order 12898 requires each federal agency to "make achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental impacts on minority populations and low-income populations."

essential fish habitat (EFH) – Those waters and substrate that are necessary to fish for spawning, breeding, feeding, or growing to maturity, as defined by the National Marine Fisheries Service and the regional Fishery Management Councils. EFH is protected by the Magnuson-Stevens Fishery Conservation and Management Act of 1996.

Farmland Protection Policy Act (FPPA) – A statute enacted in 1981 by the U.S. Congress to ensure that significant agricultural lands are protected from conversion to nonagricultural uses. For highway projects receiving federal aid, the regulations promulgated under the FPPA (7 CFR Part 658, 1984) require a state highway authority (i.e., the MaineDOT) to coordinate with the USDA Natural Resources Conservation Service. The FPPA regulates four types of farmland soils: prime farmland, unique farmland, farmland of statewide importance, and farmland of local importance.

farmland soils – Soils suited to producing crops; those with soil quality, growing season, and moisture supply needed to produce a sustainable yield when treated and managed using acceptable methods. Specifically, farmland soils are those soil types designated by the Natural Resources Conservation Service in accordance with the Farmland Protection Policy Act of 1981 by the U.S. Department of Agriculture.

farmland soils of statewide importance – Soils that are nearly prime farmland and that produce high yields of crops when treated and managed according to acceptable farming methods (see the definition for prime farmland soil).

feasibility study – A general term that refers to various types of systematic evaluations carried out to better assess the desirability or practicality of further developing a proposed action. Such studies are typically performed during the planning stages.

federal-aid system – The federal-aid system consists of those routes in Maine that are eligible for the categorical federal highway funds.

Federal Emergency Management Agency (FEMA) – A former independent agency that became part of the new Department of Homeland Security in March 2003. It is tasked with responding to, planning for, recovering from, and mitigating against disasters.

Federal Highway Administration (FHWA) – The branch of the U.S. Department of Transportation responsible for administering the funding of federal-aid highway projects.

Federal Register – A daily publication of the U.S. Government Printing Office that contains notices, announcements, rulemaking, and other official pronouncements of the administrative agencies of the U.S. Government. Various announcements and findings related to specific environmental matters and transportation projects and activities appear in this publication.

final design phase – The phase of the transportation project development process that involves the preparation of detailed working drawings as well as specifications and estimates for approved transportation projects.

Final Environmental Impact Statement (FEIS) – The document prepared after circulation of a DEIS (or Supplemental DEIS) and consideration of comments received. The Federal Highway Administration National Environmental Policy Act regulations (23 CFR Part 771.125) require that the FEIS identify a preferred alternative, evaluate all reasonable alternatives considered, discuss and respond to substantive comments on the FEIS, summarize public involvement, and describe the mitigation measures that will be incorporated into the proposed action.

Finding of No Significant Impact (FONSI) – A document by a federal agency that briefly presents the reasons why an action, not otherwise excluded (§ 1508.4), will not have a significant effect on the human environment and, therefore, for which an environmental impact statement will not be prepared. It will include the environmental assessment or a summary of it and

will note any other environmental documents related to it (§ 1501.7(a)(5)). If the assessment is included, the finding need not repeat any of the discussion in the assessment but may incorporate it by reference.

floodplain – The level area adjoining a river channel that is inundated during periods of high flow.

floodway – The channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood may be carried without substantial increases in flood heights.

formal consultation – a process between the specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection and the Federal agency that commences with the Federal agency's written request for consultation under section 7(a)(2) of the Endangered SpeciesAct and concludes with the U.S. Fish and Wildlife Service's or National Marine Fisheries's issuance of the biological opinion under section 7(b)(3) of the Act.

fragmentation – Subdivision of a forest or other habitat into isolated patches by roads, land-clearing, or other human or natural alterations of the landscape and accompanied by the loss of a certain portion of the original habitat.

freeway – A type of road designed for safer high-speed operation of motor vehicles through the elimination of at-grade intersections. This is accomplished by preventing access to and from adjacent properties and eliminating all cross traffic through the use of grade separations and interchanges.

functional conflict – Highways provide a balance between providing access (with multiple access points) and mobility (with controlled-access points). Freeways are designed to maximize mobility and serve regional traffic demands as opposed to local roads (or collectors) that provide multiple access points to adjacent land uses (residences or businesses). Functional conflicts arise when regional traffic that would be better served on a freeway uses local roads.

Geographic Information System (GIS) – A computer-based application used to perform spatial analysis.

geometric deficiency – A deficiency that occurs when a highway's geometric characteristics (e.g., lane width, shoulder width, horizontal curvature, and vertical grade) do not meet prevailing design standards.

geometric design – Those engineering activities that involve standards and procedures for establishing the horizontal and vertical alignment and dimensions of a highway.

glacial outwash – Surficial sand and gravel sediments deposited ahead of a glacier by glacial meltwater.

grade – The slope of a road along the direction of travel, typically characterized by the vertical rise per unit of longitudinal distance.

grade separation – The intersection of two roads, or a road and a railway, that cross at different elevations. One roadway overpasses or underpasses the other roadway with a structure(s).

gross regional product (GRP) – One of the major economic indices of the socioeconomic development of a region. GRP is equal to the total of added values in the regional economic industries, estimated as a difference between production and intermediate consumption.

Groundwater Recharge Protection Areas – Areas of land designated by water-resource agencies through which rainwater or snowmelt percolate and replenish the underlying aquifer near a public well. These areas require special protection because they directly affect the quality and safety of the public drinking-water supply.

habitat block – Units of habitat uninterrupted by roadways or other disturbances.

high crash location (HCL) – An intersection or highway segment that experiences an abnormally high number of crashes relative to the traffic demands that are served. For the state of Maine, the MaineDOT identifies HCLs.

highway reconstruction/rehabilitation – Reconstruction of an existing highway is undertaken when the pavement structure or alignment of the existing facility is deficient. Reconstruction includes removal and replacement of the entire pavement structure, significant changes in the vertical or horizontal alignment, or addition of lanes. Rehabilitation includes resurfacing and other minor repairs intended to extend the service life of the existing facility and enhance highway safety.

historic resources – Properties, structures, and districts that are listed in or have been determined to be eligible for listing on the National Register of Historic Places.

hourly traffic volume – The number of vehicles that use a given road during a 1-hour period.

hydric soils – Soils that are saturated, flooded, or ponded long enough during the growing season to develop at least temporary conditions in which there is no free oxygen in the soil around roots. Hydric soils correspond to federally and state-regulated wetlands in many circumstances.

hydrologic regime – The frequency and duration of inundation or soil saturation of a given area.

impacts – A term used to describe the positive or negative effects on the natural or human environment as a result of a specific project(s).

impervious surface – Relates to hydrology; a surface through which precipitation cannot penetrate, causing direct runoff or perching (e.g., asphalt paving, roofs, and densely compacted gravel).

incidental take – takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant.

independent utility – The ability of a transportation improvement to be a usable and reasonable expenditure even if no additional transportation improvements are made in the area.

indirect effects (or secondary impacts) – Effects caused by a given action occurring later in time or farther removed in distance but that are reasonably foreseeable (e.g., induced changes to land-use patterns, population density, and growth rate).

Integrated Transportation Decision-Making (ITD) Process – The requirements of Maine's Sensible Transportation Policy Act and the National Environmental Policy Act have been integrated within a single ITD process to guide the planning of new transportation construction projects in the state.

Intelligent Transportation Systems (ITS) – The application of technology to goods and people movement to reduce delay and improve safety. The main applications of ITS in place today involve the monitoring of real-time traffic flows and weather conditions and then transmitting this information to the appropriate authorities and the motoring public. The authorities use this information to send response teams to the scene of an accident, whether it is an emergency medical team or a hazardous material team. The motoring public is alerted to potential hazards or delays on roadways through the use of highway advisory radio, variable message signs, or broadcast radio traffic reports.

interagency meeting – One of several scheduled gatherings held during the transportation project development process to present studies and data to government agencies and to receive comments and responses to assist in further project development. Typically, these meetings are held to discuss data such as plans of study, needs analyses, alternatives-analysis information, elimination and selection of alternatives, and environmental documents.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) – a United States federal law that posed a major change to transportation planning and policy, as the first U.S. federal legislation on the subject in the post-Interstate Highway System era. It presented an overall intermodal approach to highway and transit funding with collaborative planning requirements, giving significant additional powers to metropolitan planning organizations. Signed into law on December 18, 1991 by President George H. W. Bush, it expired in 1997. It was followed by the Transportation Equity Act for the 21st Century (TEA-21) and most recently in 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

interstate – A freeway-type highway that is part of the National Highway System.

Interstate Highway System – The network of interstate highways established by the Federal-Aid Highway Act of 1956. The statute established a 41,000-mile network of controlled-access highways (expanded to 42,000 miles by legislation in 1968) intended to connect all metropolitan areas with populations of more than 50,000 and all state capitals.

jeopardize the continued existence of – to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

Labor Market Area (LMA) – Regional areas with a high concentration of employment opportunities. These are economically integrated units within which workers may readily change jobs without changing their place of residence.

lacustrine – Of and related to lakes.

Land and Water Conservation Fund (LWCF) – A system for funding federal, state, and local parks and conservation areas, created by the Land and Water Conservation Fund Act of 1964.

lead agency – The federal project proponent with primary responsibility for preparing an environmental document.

Least Environmentally Damaging Practicable Alternative (LEDPA) – This is identified by the U.S. Army Corps of Engineers in compliance with Section 404(b)(1) of the U.S. Clean Water Act. Critical to the selection of the LEDPA is the recognition of the full range of National Environmental Policy Act alternatives and impacts in determining which alternatives are (1) practicable, and (2) environmentally less damaging. The U.S. Army Corps of Engineers is the only federal agency that can permit the LEDPA.

legal notice – A formal announcement or finding published in a periodical or newspaper to provide official public notice of an action or approval that is of public interest.

level of detail – A general term referring to the amount of data collected and the scale, scope, extent, and degree to which item-by-item particulars and refinements of specific points are necessary or desirable in carrying out a study. Level of detail is an important factor in the quality of a study, overall study costs, and length of time needed to perform study work.

Level of Service (LOS) – A qualitative measure describing operational conditions in a traffic stream and their perception by motorists and/or passengers. Six levels of service are defined and given letter designations from A to F, with LOS A representing the best operating conditions (i.e., very light, free-flowing traffic) and LOS F the worst (i.e., congested, stop-and-go traffic).

link – A new or existing highway segment between two defined end-points.

local roads and streets – All public roads and streets not classified as arterials or collectors have a local classification. Local roads and streets are characterized by many points of direct access to adjacent properties and have a relatively minor role in accommodating mobility. Speeds and traffic volumes are usually low.

logical termini – Features such as cross-route locations that are considered rational end-points for a transportation improvement and that serve to make it usable.

Magnuson-Stevens Fishery Conservation and Management Act – Legislation (16 USC 1855(b)) governing all fisheries resources within 320 kilometers (200 miles) of the U.S. coast that established regional

Fishery Management Councils and required the preparation of Fisheries Management Plans.

MaineDOT Highway Design Guide – A tool developed by the MaineDOT that provides guidance for the design of roads and highways in the State of Maine in addition to the Federal Highway Administration design criteria.

Maine Sensible Transportation Policy Act (STPA) – A state law enacted in 1991 by the citizens of Maine that provides a decision-making framework for examining a range of alternatives. The STPA is applicable to transportation-planning, capital-investment, and project-selection decisions made by the MaineDOT.

major collector road – Collector roads that tend to serve higher traffic volumes than other collector roads. Major collector roads typically link arterials. Traffic volumes and speeds are typically lower than those of principal arterials.

mesoscale air-quality analysis – A regional-level analysis of air for chemical constituents.

microscale air-quality analysis – An analysis of air for chemical constituents, typically conducted for a small study area such as an intersection.

minor arterial – Highways that tend to link collector roads to principal arterials and serve lower traffic volumes than typical arterials. Minor arterials are typically designed at lower travel speeds than principal arterials.

mitigation – Actions that avoid, minimize, or compensate for potential adverse impacts.

mitigation measures – Specific design, commitment, or compensation made during the environmental evaluation and study process that serve to moderate or lessen impacts from a proposed action. In accordance with CEQ Regulations, mitigation includes avoidance, minimization, rectification, reduction, and compensation.

National Ambient Air Quality Standards (NAAQS) – The prescribed level of pollutants in the outside air that cannot be exceeded during a specified time in a specified geographic area.

National Environmental Policy Act (NEPA) of 1969, as amended – Federal legislation that requires an inter-disciplinary approach in planning and decision making for federal-aid actions. The Act includes requirements for the contents of Environmental Impact Statements that are to accompany every recommendation for major

federal actions significantly affecting the quality of the human environment. The interdisciplinary study approach includes analysis of potential impacts to the natural, social, and economic environments.

National Highway System (NHS) – A system of those highways determined to have the greatest national importance to transportation, commerce, and defense in the United States. It consists of the Interstate Highway System and logical additions to it, selected other principal arterials, and other facilities that meet the requirements of one of the NHS subsystems.

National Historic District – An area consisting of numerous buildings and their settings and identified as historic on the National Register of Historic Places.

National Priority List (NPL) – The "Superfund" statute (42 USC Section 9601) requires the U.S. Environmental Protection Agency to establish a NPL of sites that are to be given top-priority consideration for removal of hazardous substances and remedial action.

National Register of Historic Places (NRHP) – the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

National Wetlands Inventory (NWI) – A program administered by the U.S. Fish & Wildlife Service for mapping and classifying wetlands resources in the United States.

Natural Resources Conservation Service (NRCS) – Formerly the Soil Conservation Service, NRCS is a department in the U.S. Department of Agriculture responsible for conserving all natural resources on private lands and administering the Farmland Protection Policy Act.

needs analysis – Data collection and analysis to document the purpose and needs for a project. This document may draw on any number of transportation, master-planning, socioeconomic, traffic, safety, system-linkage, growth-management, or other community or regional issues of importance.

new location highway – A highway proposed to be constructed on land not currently used for transportation facilities.

nitrogen oxides (NOx) – Nitric oxide (NO) and nitrogen dioxide (NO_2) are collectively referred to as nitrogen oxides (NOx). NO forms during the high-temperature combustion process. NO_2 forms when NO further reacts in the atmosphere. NOx reacts with sunlight to form ozone, a colorless gas associated with smog or haze conditions. Ozone is a pollutant regulated by the Clean Air Act Amendments of 1990.

No-Build Alternative – Typically includes short-term, minor restoration types of activities (e.g., safety and maintenance improvements) that maintain the continuing operation of an existing facility. The No-Build Alternative serves as a baseline for the comparison of other alternatives.

noise abatement criteria (NAC) – Noise levels measured in decibels that are used as a basis of comparison for evaluating the impact from predicted design-year noise and for determining whether noise-abatement measures should be considered.

noise abatement measures – Actions that reduce traffic-noise impacts. Noise-abatement measures can be traffic-management measures, alteration of horizontal and vertical alignments, acquisition of property rights for construction of noise barriers, construction of noise barriers, acquisition of real property or interest for buffer zones, or noise insulation of public-use or nonprofit institutional structures.

noise receptor – Locations that may be affected by noise. Sensitive receptors include residences, parks, schools, churches, libraries, hotels, and other public buildings.

non-community drinking water system – A public water system that serves at least 25 people at least 60 days of the year and is not a community or seasonal water system.

non-point source pollution (NPS) – Pollution of water bodies that does not originate at a single specific source, such as an industrial discharge or discharge from a wastewater treatment plant. Sources of NPS include runoff from highways, agricultural fields, golf courses, and lawns.

other principal arterials – Highways that provide access between arterials and a major port, airport, public-transportation facility, or other intermodal-transportation facility. Other principal arterials tend to serve lower traffic demands than principal arterials.

Outstanding River Segment (ORS) – A section of a river or stream designated by the Maine Natural

Resources Protection Act (12 MRSA § 403) for protection because of the special resource values of its flowing waters and shorelines.

ozone – A gas that is a variety of oxygen. Ozone is a pollutant regulated by the Clean Air Act Amendments of 1990. Ground-level ozone is the main component of smog. Ozone is not directly emitted by motor vehicles but rather is formed when oxides of nitrogen react with sunlight.

palustrine – The group of vegetated wetlands traditionally called by names such as marsh, swamp, bog, fen, and prairie. Palustrine wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes.

palustrine emergent wetlands (PEM) – A palustrine wetlands dominated by herbaceous species, typically cattails, sedges, and grasses, and commonly referred to as a marsh.

palustrine forested wetlands (PFO) – A palustrine wetlands dominated by trees, commonly referred to as a swamp.

palustrine scrub-shrub wetlands (PSS) – A palustrine wetlands dominated by shrubs.

peak hour – The hour of the day when traffic volume on a given roadway is highest. A separate peak hour can be defined for morning and evening periods.

peak-hour Leq – Represents the noisiest hour of the day/night and usually occurs during peak periods of motor-vehicle traffic. The Leq is the equivalent sound-level measurement, which means it averages background and short-term transient sound levels and provides a uniform method for comparing sound levels that vary over time.

peak-hour volume – The traffic volume that occurs during the peak hour, expressed in vehicles per hour. Peak-hour volumes are typically 10 to 15 percent of daily volumes.

permit – Written permission given by a governmental agency to take certain action during specific steps of a transportation project development process. Permits may include permission for any construction, excavation, depositing of material, or other work in navigable waters (USACE); permission required for the discharge of dredged or fill material into waters of the United States (USACE); and permission to construct

bridges, causeways, and drawbridges in navigable waters (U.S. Coast Guard). A permit also may refer certain other clearances or certifications, such as clearance from the Federal Aviation Administration for proposed highway construction in the vicinity of public-use and military airports, and water-quality certifications for the licensing of an action that would result in a discharge into regulated waters. These approvals, as well as certain others relating to solid-waste management, underground storage tanks, coastal zone areas, and so forth, involve approvals and documentation commonly referred to as permits.

plan of study – A detailed, item-by-item outline of the objectives, scope, methodology, and schedules for the analysis and development of a specific transportation project.

posted speed limit – The speed posted for a facility based on engineering and traffic investigations.

preliminary engineering – A general term to describe early phases of technical studies undertaken to determine all relevant aspects of transportation location, to identify feasible route alternatives or design options, and to assess various cost and benefit parameters before advancing the project into more detailed final design.

prime farmland soil – Soil map units that are designated by the Natural Resources Conservation Service as having the properties needed to produce sustained high-yield crops when managed with modern farming techniques.

principal arterials – Highways in rural and urban areas that connect urban areas, international border crossings, major ports, airports, public-transportation facilities, or other intermodal-transportation facilities.

project development – The overall process of advancing a transportation project from concept to implementation. Project development typically encompasses environmental and engineering tasks including planning, location, preliminary design, final design, and construction.

proposed species – any species of fish, wildlife, or plant that is proposed in the Federal Register to be listed under section 4 of the Endangered Species Act.

public hearing – A meeting designed to afford the public the fullest opportunity to express opinions on a transportation project. A verbatim record (i.e., transcript) of the proceedings is made part of the project record.

public involvement – Activities that present information to the public, seek public comments, and serve to ensure consideration of public opinion.

public meeting – An announced meeting conducted by transportation officials designed to facilitate participation in the decision-making process and to assist the public in gaining an informed view of a proposed project at any level of the transportation project development process. Such a gathering may be referred to as a public information meeting.

rare and exemplary natural community – An assemblage of interacting plants and animals and their common environment, recurring across the landscape, in which the effects of recent human interference are minimal. Rare natural communities are those that occur infrequently. Exemplary natural communities are exceptional representatives of more common natural communities.

RCRA generator – An entity that produces hazardous waste regulated under the Resource Conservation and Recovery Act (RCRA) (42 USC Section 6901), which mandates the appropriate identification, tracking, and disposal of hazardous waste.

Record of Decision (ROD) – The document, prepared by the Federal Highway Administration, that presents the basis for the federal-agency action, summarizes any mitigation measures to be incorporated, and documents any required Section 4(f) approvals. No federal-agency action may be undertaken until a ROD has been signed. A ROD is prepared no sooner than 30 days after the public release of the Final EIS (FEIS).

relocations – The displacement of a residence, business, or other structure from a property owner, for public use, that requires the residents or business to be moved to an alternate location.

right-of-way – Land acquired by purchase, gift, or eminent domain to build and maintain a public road, bridge, railroad, or public utility.

riparian – An area of land that is adjacent to a stream or other water body.

riverine – Of and relating to rivers.

rural – A rural community is defined as an area with a population of fewer than 2,500 people or a population between 2,500 and 6,000 people and a worker-to-resident-worker ratio less than 1.0.

safety deficiency – In the context of this study, a safety deficiency is a highway segment or intersection that contains a high crash location.

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC Section 303) (Section 4(f)) – Legislation protecting publicly owned parks, public recreation areas, historic properties, or wildlife and waterfowl refuges. The statute states that no Department of Transportation project may use land from these areas unless it has been demonstrated that there is to be no prudent and feasible alternative to using the land and that the project includes all possible planning to minimize harm resulting from the use.

Section 6(f) of the Land and Water Conservation Fund Act of 1963 (Section 6(f)) – Legislation that provides for the public purchase and preservation of tracts of land.

Section 10 of the Rivers and Harbors Act of 1899 (Section 10) – Legislation (33 USC Section 403) that resulted in a permit being required from the U.S. Army Corps of Engineers (USACE) for projects requiring construction in or over navigable waters, the excavation from or dredging or disposal of materials in such waters, or any obstruction or alteration in a navigable water (e.g., stream channelization).

Section 106 of the National Historic Preservation Act (Section 106) – The National Historic Preservation Act of 1966 (16 USC 470f), Section 106, requires federal agencies to consider the effect of their undertakings on properties included in or eligible for inclusion on the National Register of Historic Places and to afford the Advisory Council on Historic Preservation the opportunity to comment on such undertakings.

Section 404 of the Clean Water Act (Section 404) – The Federal Water Pollution Control Act Amendments of 1972 (33 USC 401 et seq.) is the legislation for protection of waters of the United States by the USACE and the U.S. Environmental Protection Agency. In accordance with Section 404 of the Clean Water Act, a permit is required from the USACE for projects requiring discharge of dredged or fill material into waters of the United States.

shrub – A woody plant of relatively low height, having several stems arising from the base and lacking a single trunk.

sight distance – The distance that a driver can see along the roadway before curvature or obstructions block the view.

significant impacts – Any number of social, environmental, or economic effects or influences that may occur as a result of the implementation of a transportation improvement. "Significant impacts" may include effects that are direct, secondary, or cumulative. The term *significant* is used to measure both context and intensity and interpreted by the Federal Highway Administration in determining what type of National Environmental Policy Act document is appropriate. Categorical exclusions are those actions that do not involve significant effects. In most cases, Environmental Impact Statement projects can and do involve significant impacts.

significant wildlife habitat – as defined by Maine Law – Wildlife habitats, including deer-wintering yards, waterfowl and wading-bird habitat, seabird-nesting habitat, and significant vernal pools, that are protected under the State of Maine's 38 MRSA § 480-B.

State Implementation Plan (SIP) – A plan created under the 1990 Clean Air Act Amendments that establishes emission-reduction requirements for ozone and carbon-monoxide nonattainment areas. Proposed projects must demonstrate that the impacts of emissions are consistent with the appropriate SIP.

Stormwater Pollution Prevention Plan (SWPPP) – A plan required for major construction projects under the U.S. Environmental Protection Agency National Pollutant Discharge and Elimination System general permit for construction activities. The SWPPP is required to address measures to prevent erosion, sedimentation, and other potential discharges of pollutants to water bodies and wetlands.

stormwater runoff – The portion of precipitation that flows toward stream channels, lakes, or other water bodies as surface flow.

study area – An identified expanse of land or topography selected and defined at the outset of engineering or environmental evaluations that is sufficiently adequate in size to fully identify, analyze, and document impacts and effects for proposed projects within its boundaries.

study need – A detailed explanation of the specific transportation problems or deficiencies that have generated the search for improvements. It refers to technical information, as necessary, such as measures of traffic efficiency or demand (e.g., origin–destination patterns, modal links, queue lengths, motorist delays, and level of service) and other goals (e.g., economic development, safety improvement, and legislative directives). Much of this information should be

generated by the transportation planning process at an early stage. The explanation of need should be a problem-statement discussion, not a solution-oriented discussion.

study purpose – A broad statement of the overall intended objective to be achieved by a proposed transportation facility. Typically, the purpose can be defined in a few sentences. For instance, it may address expanded capacity in a given transportation corridor to facilitate the safe and efficient movement of people and goods or improved access to a given area or community.

Supplemental Draft Environmental Impact Statement (SDEIS) – The document prepared by the Federal Highway Administration (FHWA) in accordance with FHWA National Environmental Policy Act regulations (23 CFR Part 771.130). A DEIS will be supplemented when the FHWA determines that (1) changes to the proposed action would result in significant impacts not evaluated in the DEIS, or (2) new information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in the DEIS. An SDEIS document generally presents new and updated information with regard to changes in the study and environment that have occurred since the publication of a DEIS.

Surface-water supply watershed – The watershed that contributes to a public drinking-water supply.

system compatibility – Describes how well alternatives, either new highways or upgrades, fit into an existing highway network and the transportation-improvement plan.

system continuity – Defined by how often highways transition between wide, higher-speed segments to narrow, lower-speed segments.

system linkage – A planning concept that refers to the interconnecting of roadways that comprise an overall transportation network. A discussion about how a proposed project fits into an existing and future transportation system (i.e., network) and how it contributes to developing a sound transportation network in an area or region is termed *system linkage*. In describing this concept, the terms *connector road, missing link, gap completion,* and *circumferential link* are sometimes used.

system planning – A methodical approach to the formulation of plans and programs for safe, efficient, and balanced transportation networks. The process includes the setting of goals and objectives; the collection of data of existing conditions; the simulation of future activities; the formulation of alternative planned changes; the

evaluation of the changes against the desired goals and objectives; and the decisions about recommendations that are feasible, desirable, and appropriate.

threatened species – Any species that is likely to become an endangered species in the foreseeable future throughout all or a significant portion of its range (in reference to the Endangered Species Act [16 USC. Chapter 35 Section 3(20)] and the Maine Endangered Species Act).

Traditional Cultural Property (TCP) – A property or site that is eligible for inclusion on the National Register of Historic Places because of its association with cultural practices or beliefs of a living community that are rooted in that community's history and are important to maintaining the continuing cultural identity of the community.

transportation deficiencies – A highway-related facility that is unable to safely and efficiently satisfy travel demands because of the intensity of traffic volumes, capacity, and/or safety.

Transportation Demand Management (TDM) – A system of actions whose purpose is to alleviate traffic problems through improved management of vehicle trip demand as opposed to adding new highway segments.

transportation project development process – An interactive, multiphase series of activities typically spanning a period of years that involves comprehensive planning, prioritization, detailed engineering and environmental studies, and agency and public involvement that lead to the selection, design, and construction of identified transportation improvements.

Transportation Systems Management (TSM) – Relatively low-cost measures to increase capacity and/or provide safety improvements on an existing transportation system. These measures typically include traffic-signal timing or phasing adjustments, designation of turning lanes at specific intersections or driveways, access-management improvements, and enhanced signage or markings.

unfragmented habitat block – An undeveloped area that is not impacted by roads, vegetation clearing, or development.

upgrade – A geometric improvement to an existing highway segment.

urban – An urban community is defined as an area with a population of more than 7,500 people or a population

between 2,500 and 7,500 people and a worker-to-resident-worker ratio greater than 1.0.

U.S. Army Corps of Engineers (USACE) – A federal agency that administers Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Its regulatory programs address wetlands and waterways protection.

U.S. Department of Agriculture (USDA) – A federal agency responsible for administering programs that address farming issues.

U.S. Environmental Protection Agency (USEPA) – A federal agency responsible for administering programs that address environmental issues.

U.S. Fish & Wildlife Service (USFWS) – A federal agency responsible for addressing the protection of fish and wildlife including rare, threatened, or endangered species. The USFWS has an advisory role in the Section 404 regulatory program administered by the U.S. Army Corps of Engineers.

vegetation cover type – A biological community characterized by certain vegetation characteristics, such as hardwood forest, mixed forest, shrub, herbaceous, and urban or residential managed vegetation.

vehicle-hours traveled (VHT) – A measure of automobile use and trip time. One vehicle traveling 1 hour constitutes 1 vehicle-hour.

vehicle-miles traveled (VMT) – A measure of automobile use and trip length. One vehicle traveling 1 mile constitutes 1 vehicle-mile.

vernal pool – A temporary pool of surface water that provides breeding habitat for certain amphibian and invertebrate species.

volatile organic compounds (VOCs) – Colorless gaseous compounds originating, in part, from the evaporation and incomplete combustion of fuels. In the presence of sunlight, VOCs react to form ozone, a pollutant regulated by the Clean Air Act Amendments.

volume to capacity ratio (v/c) – A measure of traffic demand on a roadway (expressed as volume, "v") compared to its traffic-carrying capacity (expressed as capacity, "c"). For example, a v/c ratio of 0.7 indicates that a roadway is operating at 70 percent of its capacity.

waterfowl and wading bird habitat (WWH) – Wetlands that provide habitat for waterfowl (i.e., geese, brant, and ducks) and wading birds (i.e., heron, egrets, bitterns, and rails) and meet certain criteria for size, quality, and

percentage of open water as established by the Maine Department of Inland Fisheries and Wildlife regulations.

watershed – A region or area that contains all land ultimately draining to a water course, body of water, or aquifer.

wellhead protection area (WPA) – Areas of land in which human activities are regulated to protect the quality of groundwater that supplies public drinking-water wells.

wetlands – Areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support – and that under typical circumstances do support – a prevalence of vegetation typically adapted for life in saturated soil conditions.

wild and scenic river – A river or river segment designated by an act of Congress, State or States through which they flow, and approved by the U.S. Department of the Interior, because of the outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values (16 USC 1271-1287).

Acronyms

AADT	Average annual daily traffic
ac.	Acre
BO	Biological Opinion
BA	Biological Assessment
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	Carbon monoxide
CRF	Critical Rate Factor
CWA	Clean Water Act (U.S.)
CZM	Coastal Zone Management
CZMA	Coastal Zone Management Act
dBA	Decibels using an A-weighted frequency filter
DEIS	Draft environmental impact statement
DHV	Design hour volume
DPS	Distinct population segment
EA	Environmental assessment
EFH	Essential fish habitat
EIS	Environmental impact statement
ESA	Endangered Species Act (U.S.)
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FEIS	Final environmental impact statement
FPPA	Farmland Protection Policy Act (U.S.)
GOM	Gulf of Maine
HCL	High crash location
ITS	Intelligent transportation systems
IWWH	Inland waterfowl and wading bird habitat
LEDPA	Least environmentally damaging practicable alternative
Leq(h)	One-hour equivalent sound level
LOS	Level of service
MaineDOT	Maine Department of Transportation
MASC	Maine Atlantic Salmon Commission
MCP	Maine Coastal Program
MDEP	Maine Department of Environmental Protection
MDIFW	Maine Department of Inland Fisheries and Wildlife
MDMR	Maine Department of Marine Resources
MDOC	Maine Department of Conservation
MHPC	Maine Historic Preservation Commission
MNAP	Maine Natural Areas Program
mph	Miles per hour
MPO	Metropolitan Planning Organization
MRSA	Maine Revised Statutes Annotated
MSAT	Mobile source air toxics
NAAQS	National Ambient Air Quality Standards
NCHRP	National Cooperative Highway Research Program

NAC Noise abatement criteria
NEPA National Environmental Policy Act
NHS National Highway System
NMFS National Marine Fisheries Service
NOx Nitrogen Oxide
NRCS Natural Resources Conservation Service
NRPA Natural Resources Protection Act
NSA Noise sensitive area
NWI National Wetlands Inventory
PAC Public Advisory Committee
Pb Lead
PM Particulate matter
ROD Record of decision
SO_2 Sulfur dioxide
STPA Maine Sensible Transportation Policy Act
TNM Traffic Noise Model
TSM Transportation systems management
USACE U.S. Army Corps of Engineers
USDA U.S. Department of Agriculture
USEPA U.S. Environmental Protection Agency
USFWS U.S. Fish and Wildlife Service
USGS U.S. Geological Survey
v/c Volume to capacity ratio
VOCs Volatile organic compounds
VHT Vehicle hours traveled
VMT Vehicle miles traveled

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Chapter 1
Purpose and Needs

Chapter 1 details the underlying purpose and needs to which the project's sponsors are responding with alternatives in Chapter 2. Chapter 1 provides an overview of the decision makers and decision-making process and provides a foundation for the remainder of the document.

Chapter Contents

1.1 Introduction

Maine Department of Transportation (MaineDOT) and Federal Highway Administration (FHWA) have undertaken the I-395/Route 9 transportation study to identify a regional solution that would improve transportation-system linkage, safety, and mobility between I-395 and Route 9 in southern Penobscot County, Maine.

The study area is located east of the City of Bangor and I-95 (exhibit 1.1). The City of Brewer and the Towns of Holden and Eddington comprise the majority of the study area. Small portions of the town of Clifton and the town of Dedham in Hancock County are also in the study area. The study area is generally bounded by the Penobscot River to the west, Route 1A to the south, Route 9 to the north, and Route 46 to the east, encompassing approximately 54 square miles.

The greater Bangor area is the economic and employment center for the north-central Maine region and a center for goods movement because of its proximity to the Interstate system and Canadian markets.

The opening of I-395, the State of Maine's east–west highway initiative, and the creation of the federal National Highway System (NHS) established the impetus for this study (see DEIS section 1.1 Study History).

1.2 Study Purpose

A detailed description of the study purpose and needs was presented in the Draft Environmental Impact Statement (DEIS) Chapter 1 Purpose and Need, which has been incorporated by reference into this Final Environmental Impact Statement (FEIS).

The purposes of the I-395/Route 9 Transportation Study are to (1) identify a section of the NHS in Maine from I-395 in Brewer to Route 9 in Eddington, consistent with the current American Association of State Highway and Transportation Officials (AASHTO)

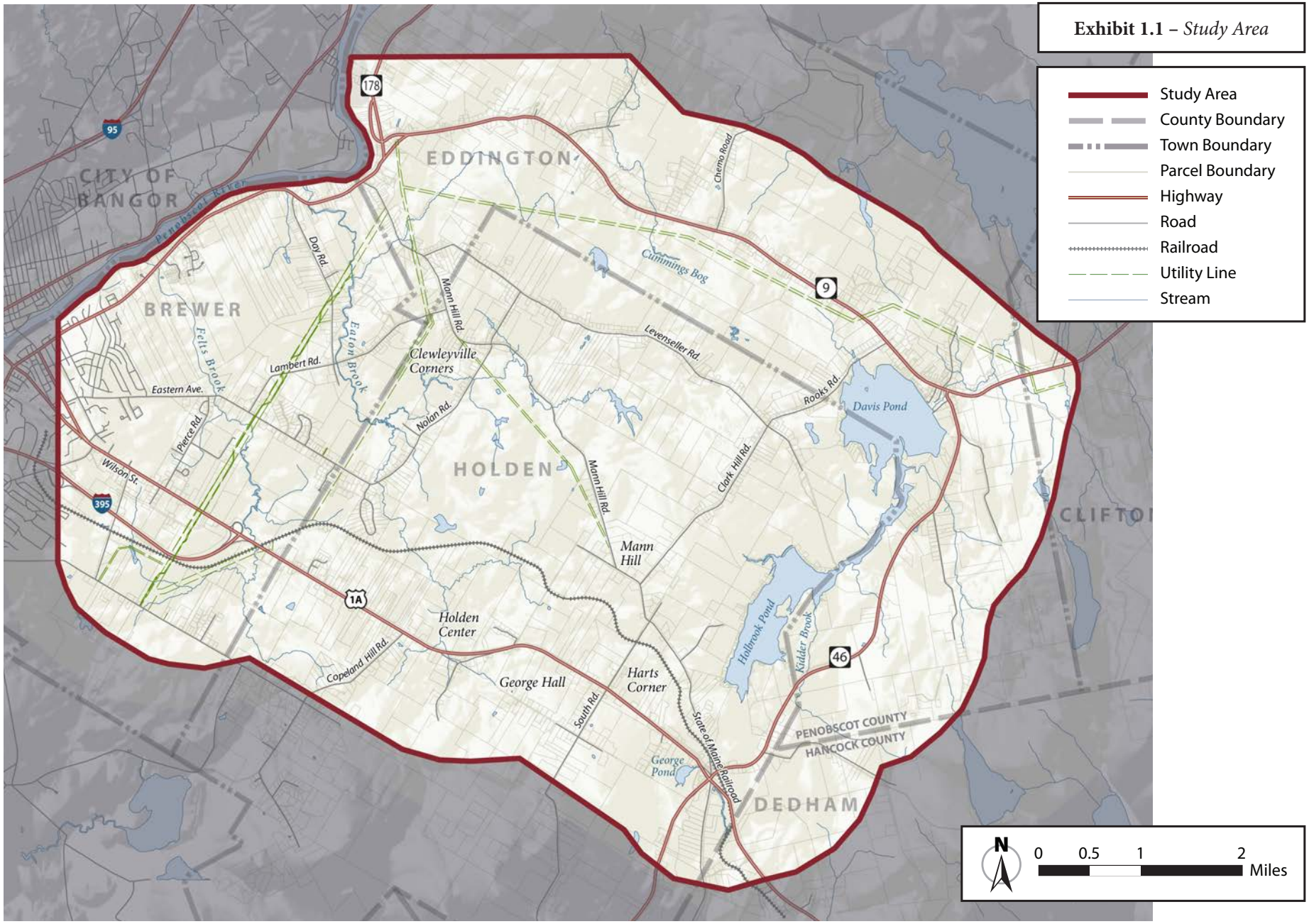


Exhibit 1.1 – Study Area
Study Area
County Boundary
Town Boundary
Parcel Boundary
Highway
Road
Railroad
Utility Line
Stream
CITY OF BANGOR
EDDINGTON
BREWER
HOLDEN
DEDHAM
CLIFTON
Penobscot River
Day Rd.
Mann Hill Rd.
Cummings Bog
Chema Road
Levenseller Rd.
Rooks Rd.
Davis Pond
Clewleyville Corners
Lambert Rd.
Eaton Brook
Felts Brook
Eastern Ave.
Pierce Rd.
Nolan Rd.
Wilson St.
Clark Hill Rd.
Mann Hill
Holden Center
Copeland Hill Rd.
George Hall
Harts Corner
South Rd.
Holbrook Pond
Kidder Brook
George Pond
State of Maine Railroad
PENOBSCOT COUNTY
HANCOCK COUNTY
178
95
9
395
1A
46
N
0
0.5
1
2
Miles

A Policy on Geometric Design of Highways and Streets; (2) improve regional system linkage; (3) improve safety on Routes 1A and 46; and (4) improve the current and future flow of traffic and the shipment of goods to the interstate system.

The logical termini of the project was identified and defined as (1) I-395 near Route 1A and (2) the portion of Route 9 in the study area.

The segment of highway connecting I-395 to Route 9 would have independent utility; Route 9 would continue to operate with sufficient capacity and at virtually the same operating speed without the need for improvement.

In compliance with Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is required to prepare a basic purpose statement to determine compliance with the 404(b)(1) guidelines. Accordingly, the USACE determined that the basic project purpose "…is to provide for the safe and efficient flow of east–west traffic and shipment of goods from Brewer (I-395) to Eddington (Route 9), Maine, for current and projected traffic volumes."

In support of this study, a public advisory committee (PAC) was assembled. The PAC consisted of volunteer citizens who are representatives of city and towns in the study area and the adjoining areas. The role of the PAC is to meet periodically throughout the study to review and comment on the activities and work performed and

General Requirements for a Discussion of Purpose and Needs in an Environmental Impact Statement

- The requirement for a discussion of purpose and needs in an Environmental Impact Statement is to "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." (40 Code of Federal Regulations [CFR]1502.13)
- The purpose and needs section is in many ways the most important part of a study and chapter of an EIS :
  - » It establishes why agencies are proposing to spend potentially large amounts of money while at the same time causing environmental impacts.
  - » A clear, well-justified purpose and need section explains that the expenditure of money is necessary and worthwhile and the priority that the action resulting from the study would be given relative to other needed highway projects.
  - » Although environmental impacts are expected to be caused by the project implemented resulting from the study, the purpose and needs section should justify why impacts are acceptable based on the project's importance.
- The discussion of purpose and needs should be as concise and understandable as possible. This discussion, which can be as short as one or two paragraphs, is important for general context and understanding, as well as to provide the framework in which "reasonable alternatives" to the proposed action would be identified. The discussion does not include a description of alternatives.

The purpose should be stated in only a few sentences.

Section 404 of the Clean Water Act requires a permit from the U.S. Army Corps of Engineers (USACE) for the discharge of dredged or fill material into waters of the United States, including wetlands. Section 404(b)(1) of the Clean Water Act provides guidance to the USACE for issuing permits; compliance with the 404(b)(1) guidelines is required. The 404(b)(1) guidelines require the selection of the Least Environmentally Damaging Practicable Alternative (LEDPA).

to provide insight to local features, issues, and concerns. The PAC assisted in developing the statement of the study's purposes and why it is needed.

In recognition of these overall study purposes, the PAC developed the following set of goals that the study should seek to address:

- safer travel from Route I-395 to Route 9
- travel efficiency
- neighborhood protection
- economic development
- environmental protection
- long-range, comprehensive planning
- connectivity with other roads and towns
- access for emergency vehicles and general traffic
- historical/archeological preservation
- financial return for investment

1.3 Study Need

The need (i.e., the problem) for transportation improvements is based on poor roadway geometry in the study area combined with an increase in local and regional commercial and passenger traffic that has resulted in poor system linkage, safety concerns, and traffic congestion.

1.3.1 Poor System Linkage

Continuity in the transportation system is essential for efficient vehicle movements and travel patterns and safety. System continuity can be defined and measured by how often an existing highway transitions between wider, higher-speed segments to narrower, lower-speed segments. System linkage and improved mobility results from smooth interconnections and transitions between regional, high-speed, high-capacity highways. In connecting these types of highways, highway-design principles attempt to provide for gradual and consistent transitions in travel speed, roadway geometry, and capacity.

Vehicles traveling through the study area from I-395 to Route 9 generally proceed from I-395 to Routes 1A, 46, and 9 — a path that has abrupt transitions in travel speed, roadway geometry, and capacity, as follows:

- I-395 is a principal arterial highway between I-95 in Bangor and Route 1A in the study area. I-395 is a controlled-access highway with two eastbound and two westbound lanes separated by an approximate 50-foot grass median. It connects to Route 1A, in Brewer with a partial cloverleaf interchange. I-395 has a posted speed of 55 mph and has a paved shoulder approximately 10 feet wide.
- Route 1A is a principal arterial highway connecting the greater Bangor and Brewer area

with Ellsworth and the coast at Bar Harbor. West of the I-395 interchange, Route 1A has two eastbound lanes and two westbound lanes. East of the I-395 interchange, Route 1A has one eastbound lane, one westbound lane, and a center turn lane from Brewer to approximately 1.3 miles east of the I-395 interchange. The remainder of Route 1A in the study area and to the coast has one eastbound and one westbound lane with no center turn lane. Access to Route 1A from its adjacent properties is not controlled and is subject to the state's rules on access management. Route 1A in the study area is posted at 25 to 45 mph, depending on location, and has a paved shoulder approximately 6 feet wide. The land uses adjacent to Route 1A in the study area are primarily commercial and residential with some undeveloped and underdeveloped areas. Over time, the areas adjacent to Route 1A are becoming increasingly more commercial.

- Route 46 is a two-lane collector road connecting Route 1A to Route 9. Access to Route 46 from adjacent properties is not controlled and is subject to Maine's rules on access management. Portions of Route 46 are steep and exceed the State of Maine's design criteria. Route 46 is posted at 35 or 45 mph and has a gravel shoulder approximately four feet wide. The land cover adjacent to Route 46 is primarily mature forested areas with scattered residences and open areas. Approaching Route 9, the land uses adjacent to Route 46 are primarily residential. Because of the mature forest canopy, considerable portions of Route 46 are shaded, and snow and ice cover does not melt rapidly.
- Route 9 is a two-lane principal arterial highway connecting the greater Bangor and Brewer area with Washington County and the Canadian Maritime Provinces to the east. Access to Route 9 from its adjacent properties is not controlled and is subject to Maine's rules on access management. Route 9 is posted at 35 or 55 mph with some school zones, depending on location in the study area, and has a paved shoulder approximately eight feet wide. The land uses adjacent to Route 9 in the study area are primarily commercial and residential with some undeveloped and underdeveloped areas. Over time, the areas adjacent to Route 9 are becoming increasingly more developed. To the east of the study area, the land uses and land cover adjacent to Route 9 quickly become less developed and more forested, and the speed limit increases to 55 mph. Most of the land adjacent to Route 9 east of the study area to the Canadian border is undeveloped.

Logical termini are features such as cross-route locations that are considered rational end-points for a transportation improvement and that serve to make it usable.

A principal arterial highway is a highway found in both urban and rural areas that connects urban areas, international border crossings, major ports, airports, public transportation facilities, and other intermodal transportation facilities.

A controlled-access highway is a highway that provides limited points of access. Interstate highways are controlled-access highways in which access points occur only at interchanges.

Access Management

The 119th Maine Legislature approved LD 2550, An Act to Ensure Cost-Effective and Safe Highways in Maine. The purpose of the Act is to ensure the safety of the traveling public and protect highways against negative impacts of unmanaged access.

The Act specifically directs the MaineDOT and authorized municipalities to promulgate rules to ensure safety and proper access on all state and state-aid highways with a focus on maintaining posted speeds on arterial highways outside urban compact areas.

More information can be found at http://www.state.me.us/mdot/planning-process-programs/amprogram.php.

The results of these deficiencies in system linkage are safety concerns, delays in passenger and freight movement, and conflicts between local and regional traffic.

1.3.2 Safety Concerns

Locations in the study area exhibit higher crash rates than other locations in Maine with similar characteristics.

Data were collected and analyzed to identify high crash locations (HCLs) using a critical rate factor (CRF). The CRF of an intersection or roadway section is a statistical measure of that location's crash history as compared to locations with similar geography, traffic volume, and geometric characteristics. When a CRF exceeds 1.00, the intersection or portion of a roadway has a higher-than-expected crash rate. Those locations with a CRF higher than 1.00 and more than eight crashes in a three year-period are considered HCLs.

Data were collected and analyzed to identify HCLs in the study area (exhibit 1.2). MaineDOT crash data for January 2004 through December 2008 indicate 10 HCLs that meet the criteria in the study area (MaineDOT, 2007c; MaineDOT, 2010).

The majority of crashes occurred on clear days with dry road conditions (MaineDOT, 2000b).

1.3.3 Traffic Congestion

Since the extension of I-395 from Bangor to Route 1A in 1986, traffic volumes in the study area have increased steadily. This growth has been most pronounced along Route 46 between Routes 1A and 9, which has become more widely used by both passenger vehicles and trucks as a connection among I-95, I-395, and Route 9.

Much of the truck traffic in the study area is through-traffic. Most of the truck trips are between the Canadian Maritime Provinces and Washington County at the eastern end, and Penobscot County and the New England states at the western terminus of the trips (MaineDOT, 2000a). Approximately 80 percent of truck traffic on Route 9 uses Route 46, and approximately five of six heavy trucks that use Routes 46 and 1A also use I-395 (MaineDOT, 2001). Route 46 south of Route 9 exhibited the greatest annual growth rate (i.e., annual growth factor of 1.121) in heavy-truck traffic between 1983 and 1996 of all roadways in the greater Bangor area (BACTS, 1998).

Estimates of the current and future annual average daily traffic (AADT) for all vehicles and heavy trucks were determined based on MaineDOT traffic count data (exhibit 1.3).

In 2008, with the economic downturn and increase in the price of gas, traffic in the study area has not grown as fast as previously thought. The MaineDOT and FHWA anticipate the growth in traffic and traffic

Exhibit 1.2 – *High Crash Locations*

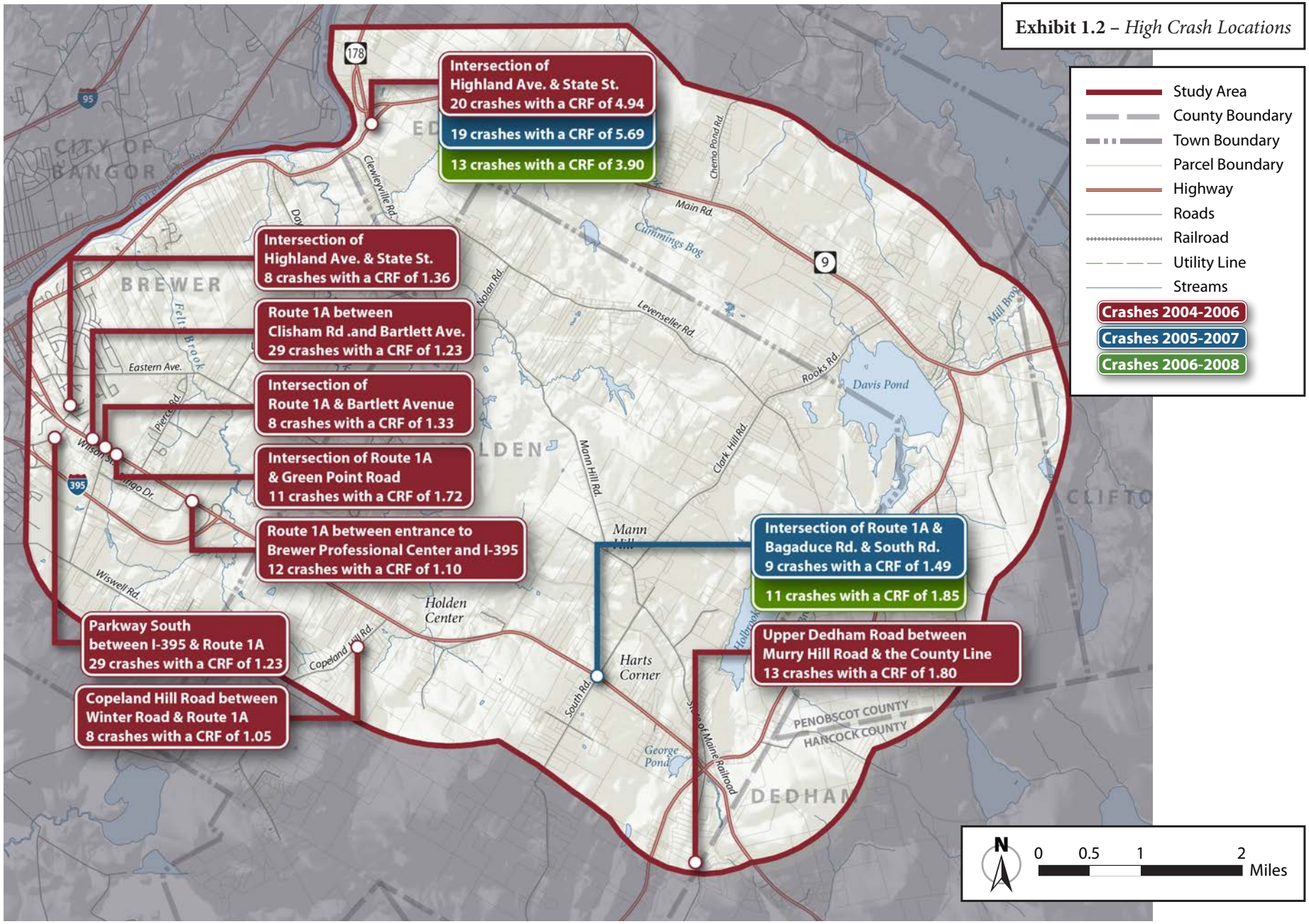


Exhibit 1.3 – *Existing and Future Traffic*

Location	1998 AADT	2006 AADT	2010 AADT	2035 AADT	2010 Truck AADT	2035 Truck AADT	% Growth 1998–2035	Growth Per Year 1998–2035
Route 1A east of I-395	18,140	20,370	22,236	33,070	1,569	2,449	82%	2.57%
Route 1A west of Route 46	16,550	15,220	16,976	30,600	1,569	2,449	85%	2.65%
Route 1A east of Route 46	11,220	11,260	12,116	18,870	1,569	2,449	68%	2.13%
Route 46 south of Route 1A	1,920	1,870	2,021	3,130	265	281	63%	1.97%
Route 46 north of Route 1A	2,270	2,270	3,058	8,570	604	1,167	278%	8.67%
Route 9 east of Route 178	6,440	6,870	7,156	8,730	569	662	36%	1.11%
Route 9 west of Route 46	4,780	5,050	5,129	5,410	604	1,167	13%	0.41%
Route 9 east of Route 46	5,100	5,400	5,830	10,940	879	1,535	115%	3.58%

volumes originally forecasted for the study area for the year 2030 won't materialize until the year 2035. By 2035, traffic volumes on Route 46 between Routes 1A and 9 are forecasted to increase by approximately 6,300 vehicles (i.e., 278 percent) (MaineDOT, 2007a).

The projected increases in traffic would lead to more traffic congestion. To help measure the traffic congestion problem and the quality of traffic flow, the MaineDOT modeled existing (i.e., 1998 and 2006) and future (i.e., 2035) design hour volumes (DHVs) of traffic for three roadways in the study area: Routes 1A, 9, and 46. The DHV is the 30th highest hour of travel during a year at a given location; therefore, it accurately reflects the heaviest summer travel congestion.

The MaineDOT used the DHVs to determine the volume-to-capacity (v/c) ratio, operating speeds, and overall level of service (LOS) for the following five roadway segments within the study area: (1) Route 1A east of the I-395 interchange and west of Route 46; (2) Route 1A east of Route 46; (3) Route 46 between Routes 1A and 9; (4) Route 9 east of Route 178 and west of Route 46; and (5) Route 9 east of Route 46.

The v/c ratio is a measure of traffic demand on a roadway (expressed as volume, "v") compared to its traffic-carrying capacity (expressed as capacity, "c"). For example, a v/c ratio of 0.7 indicates that a roadway is operating at 70 percent of its capacity.

The average travel speed is an important measure of the quality of traffic flow because it reports traffic flow in terms that most people can understand and to which they can relate their own experiences.

LOS is a qualitative measure of the performance of a roadway describing operational conditions. Generally, the LOS is defined in terms of speed, travel time, freedom to maneuver, traffic interruptions, comfort, and convenience (exhibit 1.4). Six LOS "levels" are defined for each type of roadway with different analyses and definitions for each type. Letters designate each "level" with LOS A representing the best operating conditions and LOS F representing the worst. Each LOS represents a range of operating conditions and relies heavily on the perceptions of drivers. In developed areas, LOS D is typically the "worst" traffic condition considered acceptable during normal peak hours.

In evaluating the performance of roadways, the v/c ratios and average operating speeds should be considered together with LOS, which is more of a qualitative assessment. The three performance measures do not necessarily indicate the same need to improve a roadway. For example, a roadway improvement may address an unfavorable LOS, but the roadway may already have ample capacity. Similarly, improvement in a road could reduce the v/c ratio but only have a minimal impact on average travel speed.

Exhibit 1.4 – *LOS Thresholds on Two-Lane Rural Highways*

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptors
A		55+	Highest quality of service. Free traffic flow; low volumes and densities. Little or no restriction on maneuverability or speed. **No Delays**
B		50	Stable traffic flow; speed becoming slightly restricted. Low restriction on maneuverability. **No Delays**
C		45	Stable traffic flow but less freedom to select speed, change lanes, or pass. Density increasing. **Minimal Delays**
D		40	Approaching unstable flow. Speeds tolerable but subject to sudden and considerable variation. Less maneuverability and driver comfort. **Minimal Delays**
E		35	Unstable traffic flow with rapidly fluctuating speeds and flow rates. Short headways, low maneuverability, and low driver comfort. **Significant Delays**
F		25-	Forced traffic flow. Speed and flow may drop to zero with high densities. **Considerable Delays**

Exhibit 1.5 – *DHV, v/c Ratio, Average Travel Speed, and LOS for Roadways Segments*

Year	DHV	v/c Ratio	Average Travel Speed (mph)	LOS Rural Two–Lane Road
Route 1A east of I-395				
1998	1,840	0.63	34.6	E
2006	2,001	0.69	33.2	E
2035	3,269	1.12	varies	F
Route 1A east of Route 46				
1998	1,282	0.43	44.1	D
2006	1,268	0.43	44.2	D
2035	2,123	0.72	37.5	E
Route 46 between Routes 1A and 9				
1998	244	0.14	45.1	C
2006	197	0.12	45.6	C
2035	1,006	0.40	40.8	D
Route 9 east of Route 178				
1998	641	0.27	41.2	D
2006	629	0.26	41.3	D
2035	873	0.36	39.5	E
Route 9 east of Route 46				
1998	505	0.20	43.9	D
2006	573	0.23	43.5	D
2035	1,267	0.46	39.3	E

The MaineDOT estimated the v/c ratios, operating speeds, and overall LOS of these roadway segments using peak season 1998 and 2006 travel conditions and forecasted peak season 2035 travel conditions (exhibit 1.5). Route 1A east of the I-395 interchange and west of Route 46 is forecasted to decrease in service from LOS E in 1998 to LOS F by 2035 (MaineDOT, 2007a). LOS F represents heavily congested flow with traffic demand exceeding capacity (Transportation Research Board, 1998). Route 1A east of Route 46 is forecasted to decrease from LOS D in 1998 to LOS E by 2035 (MaineDOT, 2007a). LOS E is defined as traffic flow on two-lane highways having a time delay of greater than 75 percent. Passing under LOS E conditions is virtually impossible. LOS E is seldom attained over extended sections of level terrain on more than a transient condition; most often, small disturbances in traffic flow as LOS E is approached cause a rapid transition to LOS F (Transportation Research Board, 1998).

The intersection of Routes 1A and 46 is a signalized intersection. This intersection handles traffic traveling to and from the areas of Downeast Maine and traffic to and from the Ellsworth area and the coast. In 1998, the overall performance of this intersection was estimated using peak-volume conditions at LOS B (exhibit 1.6). By 2035, with increases in traffic volume and corresponding increases in delays, this intersection is forecasted to decline to an overall performance of LOS F. LOS F at a signalized intersection describes a control delay exceeding 80 seconds per vehicle. This LOS occurs when arrival flow rates exceed the capacity of the intersection (Transportation Research Board, 1998).

Exhibit 1.6 – *LOS Criteria for Signalized Intersections*

Level of Service	Control Delay Per Vehicle (Seconds)
A	< 10
B	> 10 and < 20
C	> 20 and < 35
D	> 35 and < 55
E	> 55 and < 80
F	> 80

Exhibit 1.7 – *LOS Criteria for Individual Approaches to Unsignalized Intersections*

Level of Service	Control Delay Per Vehicle (Seconds)
A	< 10
B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50

The intersection of Routes 46 and 9 is an unsignalized intersection. This intersection handles traffic traveling to and from Bangor (and the Interstate system) and Downeast Maine. Unsignalized intersections are not defined by an overall LOS for the intersection; individual approaches to the intersection are evaluated in terms of delay (measured in seconds) and expressed by a LOS. Threshold LOS values for individual approaches to unsignalized intersections are lower for unsignalized intersections (exhibit 1.7) than for signalized intersections because of the difference between idling at a stop sign, actively looking for a gap in traffic, and idling at a traffic signal, passively waiting for the green phase. The more onerous activity of searching for a gap and the uncertainty of when that gap would arrive makes delay at a stop sign more difficult than at a traffic signal.

In 1998, the delay on the northbound approach of Route 46 to the intersection of Routes 46 and 9 was estimated using peak volume conditions to be 6.5 seconds (LOS A) (exhibit 1.8). By 2035, with increases in traffic volume, this delay is forecasted to increase to 119.4 seconds (LOS F). LOS F at an unsignalized intersection occurs when there are insufficient gaps of suitable size to allow side-street traffic to safely cross through a major-street traffic system (Transportation Research Board, 1998).

The November 2011 change in weight restrictions on I-95 had an impact on truck traffic patterns in Maine, particularly on highways north and east of Portland. Limited vehicle classification data collected during the 2010 pilot study and an extensive 2012 follow-up

Exhibit 1.8 – *Delay on Route 46 at the Intersection of Routes 46 and 9*

Year	Delay (Seconds)
1998	6.5
2006	5.6
2010	7.5
2035	119.4

short-term vehicle classification counting program in central, eastern, and northern Maine provided new information on Class 10 (tractor-trailers with six axles) travel patterns. These class counts, along with data from permanent classification sites, were compared to 2011 class data to identify corridors where changes in Class 10 volumes and travel patterns have appeared.

The lifting of the 80,000-pound weight restrictions on the toll-free portions of the Interstate showed definite shifts of 6-axle truck traffic toward toll-free Interstate highways and away from parallel state highways and the Maine Turnpike, where the restriction has long been 100,000 pounds.

Exhibit 1.9 –
The NEPA Process

1.4 Federal and State Decisions and Actions

The MaineDOT and the FHWA, with input from the public and the federal and state regulatory and resource agencies, will decide which action to take in accordance with the National Environmental Policy Act (NEPA). The NEPA process is intended to help public officials make decisions based on an understanding of the environmental consequences and to take actions that protect, restore, and enhance the environment (40 CFR Part 1500.1) (exhibit 1.9).

This document identifies reasonable alternatives and assesses their potential transportation, social, economic, and environmental impacts. NEPA requires federal agencies to consider the impacts of their actions on the natural, social, economic, and cultural environment and to disclose those considerations in a public decision-making document referred to as an Environmental Impact Statement (EIS). The EIS is first circulated publicly as a DEIS. Following publication of the DEIS, a public hearing is held to solicit additional public input for the federal decision-making process. Public input is accepted during an open public-comment period following publication of the DEIS.

The purpose of this FEIS is to provide the FHWA, the MaineDOT, other federal and state agencies, and the public with a full accounting of the anticipated environmental impacts of the alternatives developed for meeting the study's purpose and needs and identifies the preferred alternative–Alternative 2B-2. The EIS serves as the primary document to facilitate review of the proposed action by federal, state, and local agencies and the public. The EIS will provide full discussion of potential environmental impacts and will inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment (40 CFR Part 1502.1). An EIS must briefly discuss the purpose and need for the proposed action, the range of alternatives considered, the resultant environmental impacts from the proposed action, and the agencies and

people consulted during the planning of the proposed action and identifies the preferred alternative.

Publication of the FEIS would be followed by the FHWA issuing a Record of Decision (ROD). The ROD would accomplish the following:

- State the decision.
- Identify all alternatives considered by the lead agencies in reaching their decision, clearly stating the reasons for selecting the environmentally preferred alternative. An agency may discuss preferences among alternatives based on relevant factors, including economic and technical considerations and agency statutory missions. An agency will identify and discuss all such factors, including any essential considerations of national policy that were balanced by the agency in making its decision, and state how those considerations entered into its decision.
- Identify the LEDPA.
- State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program would be adopted and summarized where applicable for any mitigation (40 CFR Part 1505.2) and will include the comments on the FEIS with responses.

This FEIS provides the MaineDOT with the decision-making tool required by the Sensible Transportation Policy Act (STPA), which mandates that the MaineDOT "evaluate the full range of reasonable transportation alternatives for significant highway construction or reconstruction projects." The MaineDOT actions that may proceed after completion of the NEPA process may include final design, property acquisition for use as transportation right-of-way, and construction.

This EIS integrates the requirements of Section 404 of the CWA and provides information in support of the preliminary permit application submitted to the USACE. The USACE provides oversight and regulates activities in the nation's waters. A Section 404 individual permit would be required from the USACE for the discharge of dredged or fill material into the Waters of the United States, which include wetlands. Section 404(b)(1) of the CWA provides guidance to the USACE for the issuance of permits; compliance with Section 404(b)(1) is required. Section 404(b)(1) requires project sponsors to select the Least Environmentally Damaging Practicable Alternative (LEDPA).

A permit would not be issued if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. The LEDPA should be

determined prior to completing the FEIS/ROD because the ROD documents the Preferred Alternative.

The objective of this FEIS is to identify a solution that furthers the study purpose, satisfies the needs of the study, and minimizes adverse environmental and social impacts at an affordable cost and identifies the preferred alternative, explains the basis for its selection, describes coordination efforts, and includes agency and public comments, responses to the comments and required findings and/or determinations (40 CFR 1502.14(e)).

1.5 Applicable Regulations, Guidance, and Required Permits and Approvals

The following statutes and orders apply to the proposed action and were considered during the performance of this study and preparation of this EIS:

- American Indian Religious Freedom Act (AIRFA)
- Archeological and Historical Preservation Act (AHPA)
- Archeological Resources Protection Act (ARPA)
- Clean Air Act (CAA), 40 CFR 50
- Coastal Zone Management Act of 1972 (CZMA), 15 CFR 930
- Community Environmental Response Facilitation Act
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 40 CFR 373 and 41 CFR 101-47
- Endangered Species Act, as promulgated at 50 CFR 17
- Environmental Impact and Related Procedures, 23 CFR 771, signed March 24, 2009
- Environmental Quality Improvement Act
- Executive Order 11514 Protection and Enhancement of Environmental Quality
- Executive Order 11593 Protection and Enhancement of the Cultural Environment
- Executive Order 11988, Floodplain Management, 42 FR 26951, signed May 24, 1977
- Executive Order 11990, Protection of Wetlands, 42 FR 26961, signed May 24, 1977
- Executive Order 12088 Federal Compliance with Pollution Control Standards
- Executive Order 12372, Intergovernmental Review of Federal Programs
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629, signed February 11, 1994
- Executive Order 13007, Indian Sacred Sites
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, 65 FR 50121, signed August 11, 2000

- Farmlands Protection Policy Act, 7 CFR 658 and 7 CFR 657
- Federal Facility Compliance Act
- Federal Records Act, 36 CFR 1222, 1228, 1230, 1232, 1234, 1236, and 1238
- Federal Register, Environmental Impact and Related Procedures; Final Rule, 23 CFR Parts 635, 640, 650, 712, 771, and 790; and 40 CFR Part 622, August 28, 1987
- Federal Register, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 CFR Parts 1500-1508, November 29, 1978
- Fish and Wildlife Coordination of 1956, as amended, 16 USC 661-667e
- Historic Sites Act, 36 CFR 65
- Magnuson–Stevens Fishery Conservation and Management Act, 50 CFR Part 600
- Maine Department of Environmental Protection, Natural Resources Protection Act, 38 Maine Revised Statutes Annotated (MRSA), Chapter 3 § 480 et seq.
- Maine Department of Environmental Protection/ Maine Department of Transportation, Stormwater Memorandum of Understanding
- Maine Endangered Species Act, 12 MRSA § 7751
- Maine Hazardous Waste, Septage, and Solid Waste Management Act, 38 MRSA § 1301, 1979
- Maine Revised Statutes, Sensible Transportation Policy Act of 1991, 23 MRSA § 73
- Migratory Bird Treaty Act of 1918, 16 USC, 703-712
- Native American Graves Protection and Repatriation Act (NAGPRA), 43 CFR 10
- Public Law 91-190, National Environmental Policy Act of 1969, 42 USC § 4321 et seq., signed January 1, 1970
- Public Law 95-217, Clean Water Act of 1977, 33 USC § 1251-1376
- Resource Conservation and Recovery Act (RCRA), 40 CFR 260-281
- Safe Drinking Water Act, 40 CFR 141
- Section 106 of the National Historic Preservation Act of 1966, as amended, 16 USC 470
- Sections 401 and 404 of the Clean Water Act (CWA)
- Section 6(f) of the Land and Water Conservation Act of 1965, 16 USC 460
- Toxic Substances Control Act (TSCA), 40 CFR 761
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, 42 USC 61
- 23 CFR 774 Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites
- 23 USC. 111, Access to the Interstate System

The MaineDOT would be required to obtain the following permits and approvals prior to the advertisement of construction:

- Section 404 (of the CWA) Individual Permit: The USACE provides oversight and regulates activities in the nation's waters. A Section 404 individual permit would be required from the USACE for the discharge of dredged or fill material into the waters of the United States, which include wetlands. Section 404(b)(1) of the CWA provides guidance to the USACE for the issuance of permits; compliance with Section 404(b)(1) is required. Section 404(b)(1) may only permit discharges of dredged or fill material into waters of the United States that represent the LEDPA, so long as the alternative does not have other significant adverse environmental consequences.
- Natural Resources Protection Act (NRPA) Permit: A NRPA Permit is required from the Maine Department of Environmental Protection (MDEP) for projects in, on, over, or adjacent to protected natural resources. Protected resources are coastal wetlands, great ponds, rivers, streams, significant wildlife habitat, and freshwater wetlands.
- Section 401 Water Quality Certification: Section 401 of the CWA regulates the discharge of dredged or fill materials into waters. A Section 401 Water Quality Certification is required from the MDEP to ensure that the project would comply with state water-quality standards. Typically, the Section 401 Water Quality Certification would be issued concurrently by the MDEP with the NRPA Permit.
- Coastal Zone Management Consistency Determination: The portion of the study area in the city of Brewer is within the state's statutory coastal zone and subject to the provisions of the Coastal Zone Management Act (CZMA) of 1972 and the Maine CZM Program. The Maine Department of Agriculture, Conservation and Forestry administers the Maine Coastal Program. For efficiency, consistency reviews and determinations are rendered following the review and approval of state permit applications. This project would require a NRPA Permit issued by the MDEP and would require a CZM Consistency Determination issued with the NRPA Permit.

Chapter 2
Alternatives Analysis

Chapter 2 presents the alternatives analysis. It introduces the range of reasonable alternatives developed to meet the study purpose and needs and the USACE's basic project purpose. It identifies those alternatives retained or dismissed from more detailed study and the reasons for their retention or dismissal.

2.1 Introduction

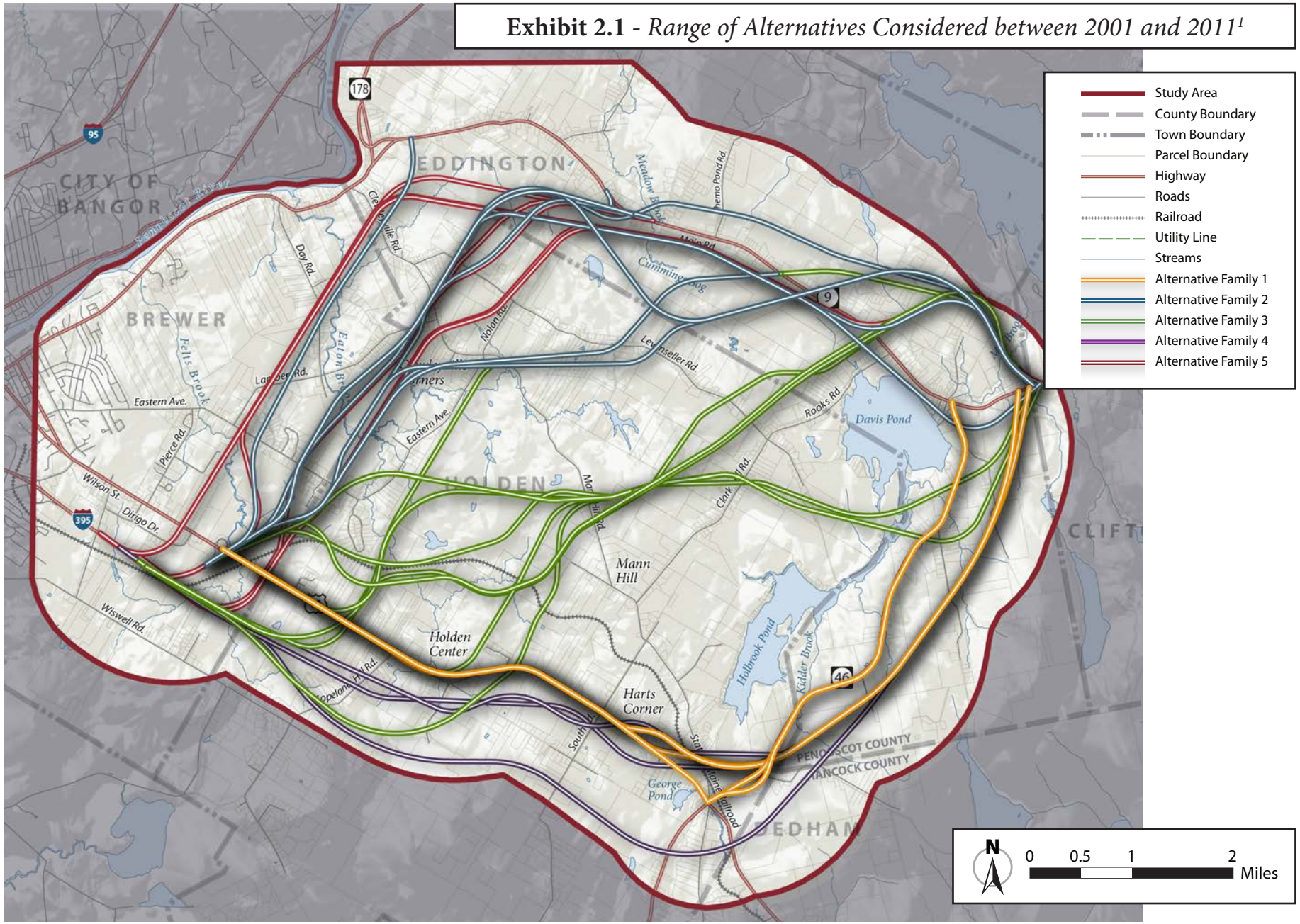
From 2001 to 2011, MaineDOT and the FHWA conceptually designed and analyzed the No-Build Alternative and more than 70 build alternatives that could potentially satisfy the study purpose and needs and the USACE basic project purpose (exhibit 2.1). In conceptually designing and analyzing alternatives, MaineDOT and the FHWA consulted with regulatory and resource agencies at the state and federal level, local officials, special-interest groups, native American tribal governments and the public. At the end of the process of identifying, developing, analyzing, and screening alternatives, four alternatives, including the No-Build Alternative, were retained for further consideration and detailed study.

Alternatives were identified, developed, and analyzed in accordance with requirements of NEPA and Section 404 of the CWA. NEPA requires MaineDOT and FHWA to consider the impacts of an action on the environment and to disclose those impacts in a public decision-making process. Alternatives generally should be discussed at a comparable level of detail. Although the No-Build Alternative (generally consisting of maintenance and short-term minor improvements) might not seem reasonable for satisfying the study purpose and needs, it must always be included in the analysis with its consequences fully developed. The No-Build Alternative serves as a benchmark against which the impacts of other alternatives can be compared.

Section 404 of the CWA regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Section 404 requires a permit from the USACE before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from regulation (e.g., certain farming and forestry activities).

Chapter Contents

Exhibit 2.1 - *Range of Alternatives Considered between 2001 and 2011*[1]



[1] **Note:** *Alternative alignments shown here have been grouped into families. For a detailed discussion of each family, please refer to Appendix C of the DEIS.*

Under Section 404, no discharge of dredged or fill material into waters of the United States may be permitted if (1) a practicable alternative exists that is less damaging to the aquatic environment, or (2) the nation's waters would be significantly degraded. To be granted a permit, the project must show that it has, to the extent practicable:

- taken steps to avoid waters and wetlands impacts
- minimized potential impacts on waters and wetlands
- provided compensation for remaining unavoidable impacts

2.2 Alternatives Identification, Development, and Analysis Process

In May 2001, MaineDOT and the FHWA, with public and PAC assistance, identified potential corridors for alternatives using low-level, high-resolution aerial photography and mapping of the land use, social features, and natural resources of the study area.

MaineDOT and the FHWA compiled and refined the suggested corridors into 45 alternatives. These initial 45 alternatives fit into the following four broad "families":

- Family 1: The Upgrade Alternatives
- Family 2: The Northern Alternatives
- Family 3: The Central Alternatives
- Family 4: The Southern Alternatives

To reduce the number of alternatives identified and conceptually designed to a reasonable range, MaineDOT and the FHWA sought to identify one alternative from each family to be studied in detail. The decision of whether to dismiss or retain alternatives for further analysis was based on their ability to satisfy the study purpose and needs, results of the preliminary impacts analysis, and consideration of overall engineering feasibility. If more than one alternative in each family fully satisfied the study purpose and needs and was practicable, the alternative was selected based on potential impacts to the features and resources. Alternatives that were more environmentally damaging than others were dismissed from further consideration and alternatives that were the least environmentally damaging were retained for further consideration.

In June 2004, alternatives were identified and developed parallel to the utility easements with the Bangor Hydro-Electric Company transmission lines. This family of alternatives, which start with the number 5, began at or near the I-395/Route 1A interchange and largely paralleled the electric transmission lines in the City of Brewer and the towns of Holden and Eddington.

The process of identifying, developing, and screening alternatives or modifying alternatives continued. In January 2008, the following seven alternatives were preliminarily identified for further consideration and development and detailed study:

Wetlands subject to Section 404 can be defined as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (CWA, Section 404).

Practicable may be defined as "available and capable of being done after considering cost, existing technology, and logistics in light of the overall project purpose."

The regulations implementing the NEPA (40 CFR 1502.14) require that the lead agencies:

a. Rigorously explore and objectively evaluate all reasonable alternatives and, for alternatives that were eliminated from detailed study, briefly discuss the reasons for their elimination.
b. Devote substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits.
c. Include reasonable alternatives not within the jurisdiction of the lead agency
d. Include the alternative of no action.
e. Identify the agency's preferred alternative or alternatives, if one or more exists, in the DEIS and identify such alternative in the FEIS, unless another law prohibits the expression of such a preference.
f. Include appropriate mitigation measures not already included in the proposed action or alternatives.

- No-Build Alternative
- Alternative 1-1
- Alternative 2B-2
- Alternative 3A-3EIK-1
- Alternative 3EIK-2
- Alternative 5A2E3K
- Alternative 5B2E3K

In a continued effort to avoid and minimize adverse impacts in December 2008, six connectors between the three western most build alternatives were identified, conceptually designed, and analyzed at the beginning of the phase of considering alternatives in detail. Of the six alternatives that resulted from connecting Alternative 5A2E3K to Alternative 2B-2, two were retained for further consideration because they resulted in comparable or less impact to wetlands and fewer residential displacements than Alternatives 2B-2 and 5A2E3K. These alternatives were named Alternative 5A2B-2 and Alternative 5A2E3K-2.

In May 2009, a meeting took place with the federal and state regulatory and resource agencies to review the range of alternatives being considered. It was agreed that Alternatives 1-1 and 3A-3EIK-1 should be dismissed from further consideration because they did not meet all of the study's purpose and needs or it was more environmentally damaging than other alternatives.

In December 2009, the system linkage need and Route 9 were reexamined in greater detail. Specifically, Route 9 was reexamined to understand more fully if it could reasonably accommodate the future traffic volumes that were foreseeable within the next 20 years. After careful consideration of those factors, MaineDOT determined that Route 9, with the exception of the sections approaching the intersection of Routes 9 and 46 where the posted speed limit is lower than other segments of Route 9, could reasonably accommodate future traffic volumes for the next 20 years (due to the 2008 economic downturn and increase in the price of gas, traffic in the study area has not grown as fast as previously forecast) without additional improvements beyond the existing right-of-way.

In September and December 2010, meetings with the federal cooperating agencies took place, the purpose of which was to solidify the range of alternatives to be considered in detail. MaineDOT, the FHWA, and the federal cooperating agencies further considered the remaining build alternatives and concluded, although available and practicable, Alternatives 3EIK-2, 5A2E3K, 5A2E3K-2, and 5B2E3K-1 were more environmentally damaging than other build alternatives and were dismissed from further consideration (see DEIS Chapter 2 for a complete alternatives analysis). Alternative 5B2B-2 was created by connecting Alternative 5B2E3K to Alternative 2B-2.

The purposes and needs of this study and its solutions lie specifically in the study area. The privately funded East-West Highway concept has its own purposes, needs, and solutions in a different area. There has been much recent discussion about not needing a connection to the Interstate system in the I-395/Route 9 study area because a proposed new East-West highway would meet the system-linkage need between I-395 and Route 9. MaineDOT and FHWA would continue to consider the I-395/Route 9 Transportation Study because the East-West highway would not satisfy the purpose and needs of the study. Specifically:

- The system linkage need would not be satisfied.
  - The I-395/Route 9 connector provides a distinct and more southerly connection. The traffic between the Canadian Maritime Provinces and the New England states is different from the traffic from the Maritime Provinces that want to travel to and from the larger markets of Quebec, Ontario, and the Midwestern United States to the West.
  - The I-395/Route 9 connector is more sub-regional and local in nature. Only 1% of the traffic studied in the 1998 Origin-Destination Study traveled from the Maritime Provinces to other western Canadian destinations.
  - The portions of Routes 1A and 46 in the study area would not provide an operationally efficient transportation facility for regional connectivity and mobility through the study area.
- The traffic congestion need would not be satisfied. Traffic would continue to operate at unacceptable quality of traffic flow and speed on Route 1A.

The current AADT along Route 9 in Eddington between the terminus of the Alternative 2B-2 and the Route 46 intersection is approximately 5,000 vehicles per day. The posted speed in this section of Route 9 is predominantly 45 mph, with 35 mph near the Route 46 intersection. Traffic on Route 9 can comfortably travel at the current posted speeds. This segment of Route 9 was constructed to a width that meets current National Highway System standards for 2-lane highways (12-foot travel lanes and 8-foot shoulders).

With Alternative 2B-2, the 2035 AADT along this segment of Route 9 is forecast to be approximately 12,000 vehicles per day. At that level of traffic flow, Route 9 can easily be maintained at the current posted speeds. There are many locations in Maine where AADTs of 15,000 to 17,000 are accommodated on 2-lane highways with 35-to-50 mph speeds. Many of these locations have more intense commercial development than Route 9 in Eddington. This indicates that traffic volume growth on Route 9 can be accommodated well beyond the year 2035.

As part of its planning process, MaineDOT regularly monitors traffic volume and traffic safety trends on all state highways, including Route 9. Traffic volumes are updated every three years, and crash data is reviewed annually to identify emerging conditions that would compromise safety and mobility. MaineDOT regulates development access to Route 9 through application of access management rules. These rules require a new development to provide safe access and maintain adequate mobility on the highway.

One way of maintaining safety and mobility along Route 9 as future development occurs is by establishing turn lanes where needed to minimize conflicts between turning traffic and through traffic. This treatment improves the safety of turns while maintaining or improving the flow of through traffic. There are examples in Maine where AADTs of 17,000 to 19,000 are accommodated on 3-lane highways (which have a 2-way left turn lane between the through lanes) with 40-to-50 mph speeds. Route 9 is adaptable ***within the existing Right-of-Way*** to this type of treatment, if conditions warrant.

With the capacity to accommodate much more than the forecasted traffic, the regular monitoring of safety and mobility conditions by MaineDOT, and the ability to accommodate additional development in a safe and efficient manner, the transportation benefits of Alternative 2B-2 would be sustainable well beyond 2035.

2.3 Range of Reasonable Alternatives Retained for Consideration

Four alternatives, including the No-Build Alternative, were retained for further consideration and analyzed in detail (exhibit 2.2).

- No-Build Alternative
- Alternative 2B-2
- Alternative 5A2B-2
- Alternative 5B2B-2

The cooperating agencies concurred with this range of alternatives to be retained for detailed analysis. MaineDOT and the FHWA would continue to work with the state and federal regulatory and resource agencies to ensure that environmental impacts are avoided and minimized to the extent practicable should a build alternative be selected and advanced to design and construction.

The build alternatives would be controlled-access highways and were conceptually designed using MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an appropriate 200-foot-wide right-of-way (exhibit 2.3). The 200-foot-wide right-of-way provides a sufficient width to allow a future widening, if needed; the need to widen beyond the 200-foot-wide right-of-way is beyond the reasonable foreseeable future time period.*

** While there were brief discussions regarding reducing the width from 200 feet to 100 or 125 feet, the right of way width was never changed and remains the 200-foot width as described in the DEIS.*

Exhibit 2.2 - *Alternatives Retained for Further Consideration*

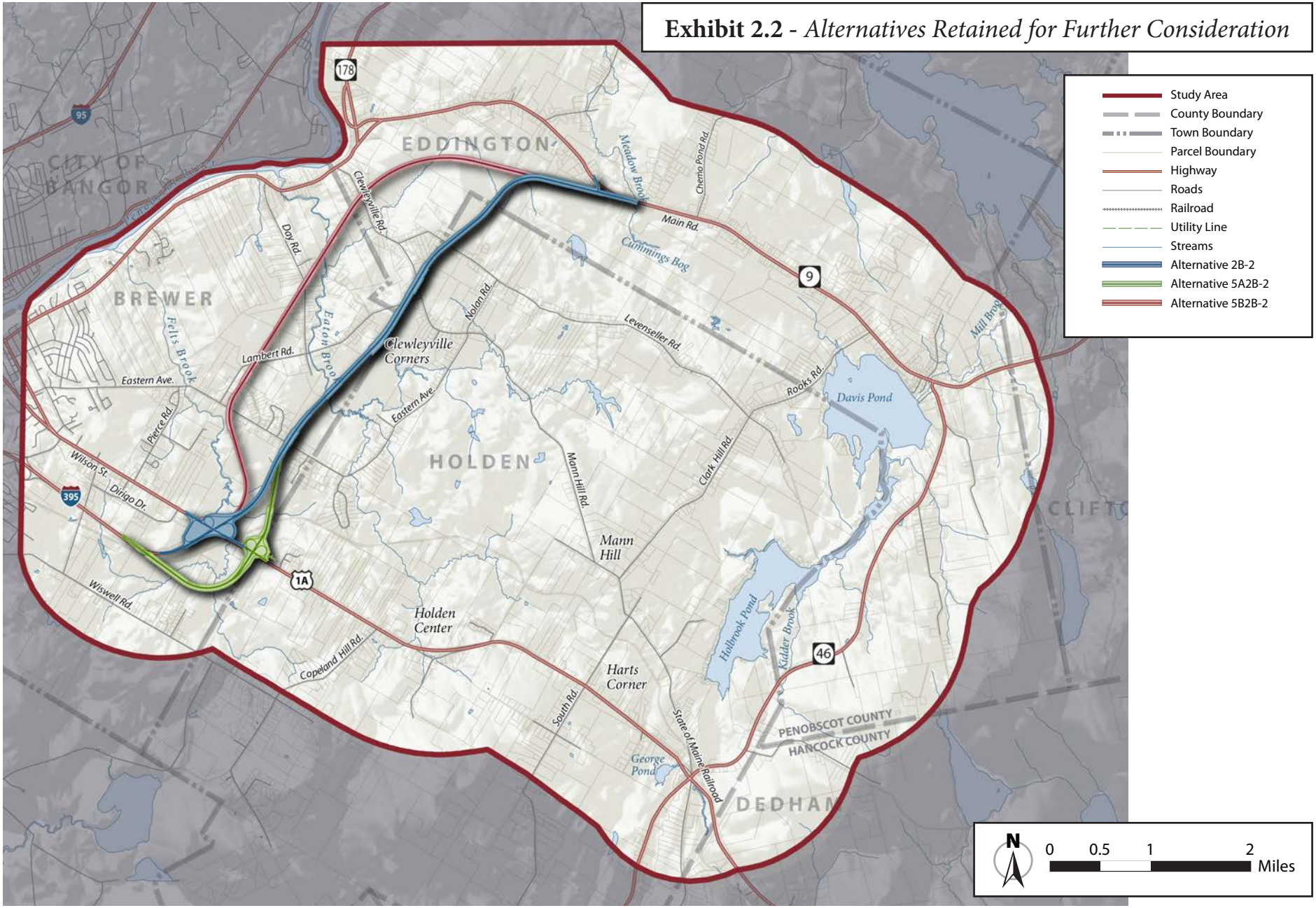
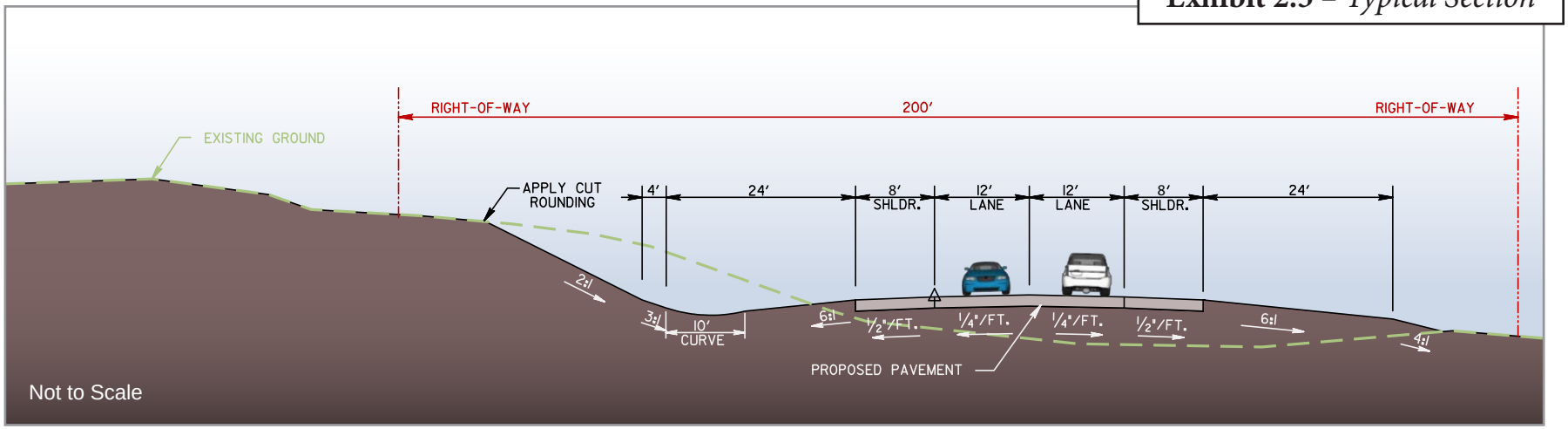


Exhibit 2.3 – *Typical Section*



During the study, it appeared that other alternatives would best satisfy the study purpose and needs. MaineDOT and FHWA studied those alternatives until it became clear that 1) those alternatives would result in greater adverse environmental impacts than Alternative 2B-2, and 2) Route 9 had adequate capacity and would continue to operate at an acceptable level of service and operating speed up to and beyond the year 2035 (the time period that has been determined to be reasonably foreseeable).

On three occasions during the study, Alternative 2B-2 (including earlier versions Alternative 2B and 2B-1) was tentatively dismissed from the range of reasonable alternatives considered for satisfying the study purpose and needs only to be added back to the range of alternatives considered. On each occasion, the DOT, in consultation with the PAC, tentatively dismissed it and, in subsequent discussions with the Federal cooperating agencies, reconsidered it because it was practical and resulted in less adverse environmental impacts than other alternatives.

A preferred alternative that best satisfies the study purpose and needs with the least adverse environmental impact was not identified prior to the identification of Alternative 2B-2 as the preferred alternative in the DEIS. After careful consideration of the range of alternatives developed in response to the study's purpose and needs and in coordination with its cooperating and participating agencies, MaineDOT and the FHWA identified Alternative 2B-2 as the preferred alternative because it best satisfies the study purpose and needs, would fulfill their statutory mission and responsibilities, and has the least adverse environmental impact between the present time and the design year 2035. In identifying Alternative

2B-2 as their preferred alternative, MaineDOT and the FHWA have identified the environmentally preferable alternative because it best meets the purpose and needs for the study; causes the least damage to the biological and physical environment; and best protects, preserves, and enhances the historic, cultural, and natural resources of the study area.

Alternative 2B-2 was identified on July 31, 2012 as the LEDPA by the USACE (see Appendix B), and as such the alternative that could receive a permit from the USACE.

2.3.1 No-Build Alternative

The No-Build Alternative consists of maintenance and Transportation System Management (TSM) improvements. Regular maintenance consists of surface and shoulder work, ditch, bridge, culvert maintenance, snow and ice removal, emergency maintenance, mowing, brush control and other vegetation management, maintenance of stormwater runoff and management systems, erosion repair, striping, sign installation, and guardrail replacement. TSM is a set of relatively low-cost measures to increase capacity and/or provide safety improvements on an existing transportation system. These measures typically include traffic-signal timing or phasing adjustments, designation of turning lanes at specific intersections or driveways, access-management improvements, and enhanced signage or markings. The No-Build Alternative serves as the baseline to which other alternatives can be compared. The No-Build Alternative proposes that there be no new construction or major reconstruction of the transportation system in the study area; regular maintenance to I-395 and Routes 1A, 46, and 9 would be continued at its present level; and the intersection of Routes 46 and 9 would be improved.

Improvements to the intersection of Routes 9 and 46 were conceptually designed to have additional through-travel and turn lanes. The improvements to this intersection could be accomplished within the existing rights-of-way of Routes 9 and 46 with no impact to the natural and social features adjacent to the intersection. MaineDOT is committed to improving the intersection of Route 9 and Route 46; given the future need and the limited scope of the improvements to the intersection, the improvements would be added to future work plans for MaineDOT. The proposed intersection would be studied and further developed during final design and discussed at a future public meeting.

The No-Build Alternative would not satisfy the study's purpose and needs or the USACE's basic purpose as it would not improve regional mobility and system linkage; would not improve safety; and would not reduce traffic congestion. The No-Build Alternative is retained for detailed analysis to allow equal comparison to the build alternatives and to help

decision makers understand the ramifications of taking no action. The impacts of the No-Build Alternative were fully developed for design year 2035 to demonstrate the full impact of taking no action. Comparing the build alternatives with the current and future No-Build Alternative is essential for measuring the true benefits and adverse impacts of the build alternatives considered in detail.

2.3.2 Alternative 2B-2/The Preferred Alternative

Alternative 2B-2/the Preferred Alternative would continue north from the I-395 interchange with Route 1A, roughly paralleling the Brewer/Holden town line, and connect with Route 9 west of Chemo Pond Road (exhibit 2.4). Route 9 would not be widened to four lanes. The existing I-395/Route 1A interchange would be used (to the extent possible) and expanded to become a semi-directional interchange (exhibit 2.5). A semi-directional interchange reduces left turns and cross traffic; the only traffic movement that would require a left turn would be Route 1A south to the Alternative 2B-2/the Preferred Alternative north. The land required for the northern portion of the interchange is owned by the State of Maine.

Alternative 2B-2/the Preferred Alternative would bridge over Felts Brook in two locations at the I-395 interchange. It would pass underneath Eastern Avenue between Woodridge Road and Brian Drive. Alternative 2B-2/the Preferred Alternative would bridge over Eaton Brook, bridge over Lambert Road, pass underneath Mann Hill Road, and bridge over Levenseller Road connecting to Route 9 at a "T" intersection (exhibit 2.6). Route 9 eastbound would be controlled with a stop sign.

Alternative 2B-2/the Preferred Alternative would further the study's purpose and satisfy the system linkage need in the near term (before 2035). Alternative

> The section of Route 9, from the intersection of 2B-2/the Preferred Alternative to the eastern edge of the study area, has adequate capacity and would continue to operate at an acceptable level of service and operating speed up to and beyond the year 2035 (the time period that has been determined to be reasonably foreseeable). Beyond the year 2035, should this section of Route 9 begin to operate at an unacceptable level of service, operating speed or safety, MaineDOT and FHWA would consider the need for additional improvements. The scope of the additional improvements could range from limited improvements within the existing right-of-way (e.g., small improvements at a specific location, additional turn lanes at intersections, addition of a center turn lane) to widening or a bypass of portions of Route 9.

2B-2/the Preferred Alternative would be a controlled access highway and conceptually designed using MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an approximate 200-foot-wide right-of-way.

Route 9 would not be improved (beyond the improvements necessary to connect the preferred alternative), and it would not provide a high-speed, controlled-access connection to the east of East Eddington village. It would satisfy the study need related to traffic congestion and safety. It would satisfy the USACE's basic purpose statement.

MaineDOT submitted an Interstate Modification Report to FHWA in October 2012 which received conceptual approval in February 2013. Final approval of the Interstate Modification Report cannot occur until after the process for complying with the NEPA is completed (see adjacent text box).

Title 23, U.S. Code, Highways Section 111 (23 USC 111) provides that all agreements between the Secretary of the U.S. Department of Transportation and the State Departments of Transportation for the construction of projects on the Interstate System shall contain a clause providing that the State would not add any points of access to, or exit from, the project in addition to those approved by the Secretary in the plans for such a project without prior approval of the Secretary. The Secretary has delegated the authority to administer 23 USC 111 to the FHWA pursuant to 49 CFR 1.48(b)(10). A policy statement consolidating a series of policy memoranda including guidance for justifying and documenting the need for additional access to the existing sections of the Interstate System, was published in the Federal Register on October 22, 1990 (55 FR 42670) entitled "Access to the Interstate System" and was then modified on February 11, 1998 (63 FR 7045) and on August 27, 2009 (74 FR 20679).

An Interchange Modification Report (IMR) was prepared by MaineDOT and the FHWA to analyze, document and justify the new section of highway proposed by the I-395/Route 9 Transportation Study. The documentation is outlined in eight policy points, specified in FHWA's *Interstate Access Informational Guide*:

1. Need for Access Point Modification,
2. Reasonable Alternatives,
3. Operational and Safety Analyses,
4. Access Connections and Design,
5. Land Use and Transportation Plans,
6. Future Interchanges,
7. Coordination, and
8. Environmental Processes.

The IMR analyzed each of these policy points in detail and concluded that the poor system linkages, safety deficiencies and traffic congestion currently plaguing the study area combined with the reasonableness of the selected alternatives; and the ability of those alternatives to meet the future traffic needs, improve safety and system linkages in the study area, and leave relatively small impacts on the environment; meant that the I-395 to Route 9 project in Brewer, Maine meets the eight policy points of Interstate System access. The FHWA Division Administrator determined the IMR is acceptable from an operational and engineering standpoint on February 7, 2013. It is noted that final approval of the IMR cannot occur until after the completion of the NEPA process.

Exhibit 2.4 – *Alternative 2B-2/the Preferred Alternative*

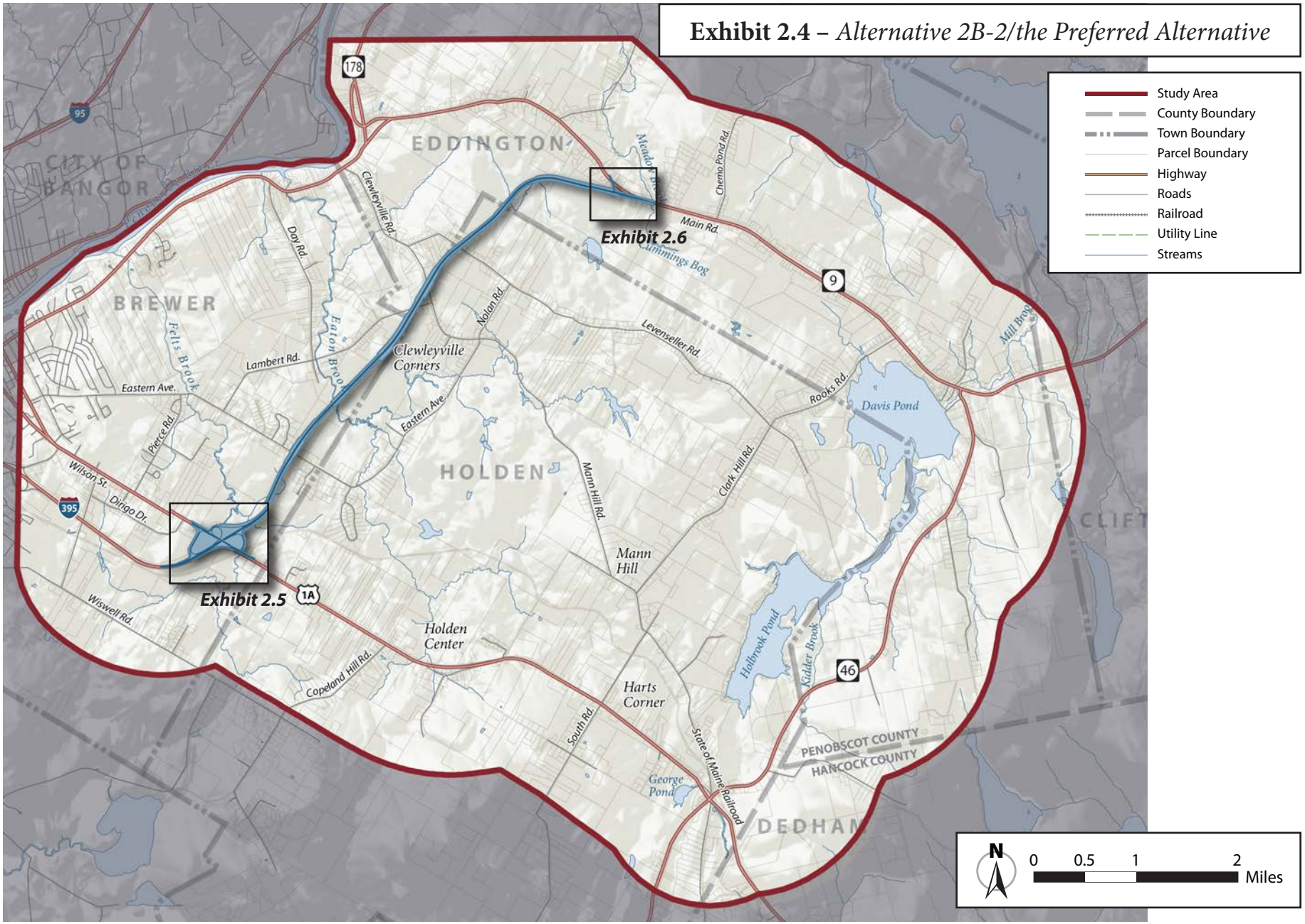


Exhibit 2.5 – *Interchange of Alternatives 2B-2/the Preferred Alternative and 5B2B-2 and Route 1A*

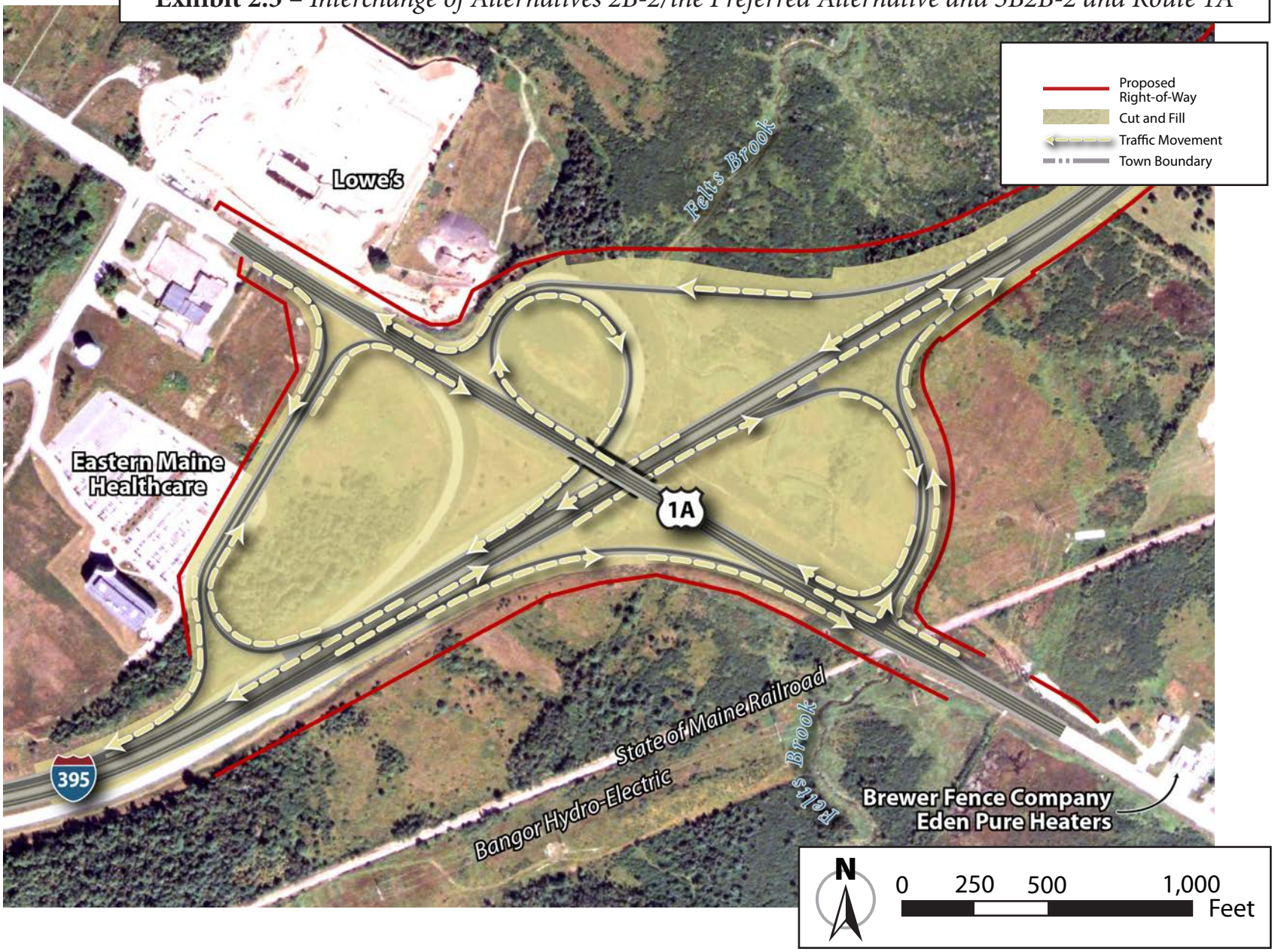
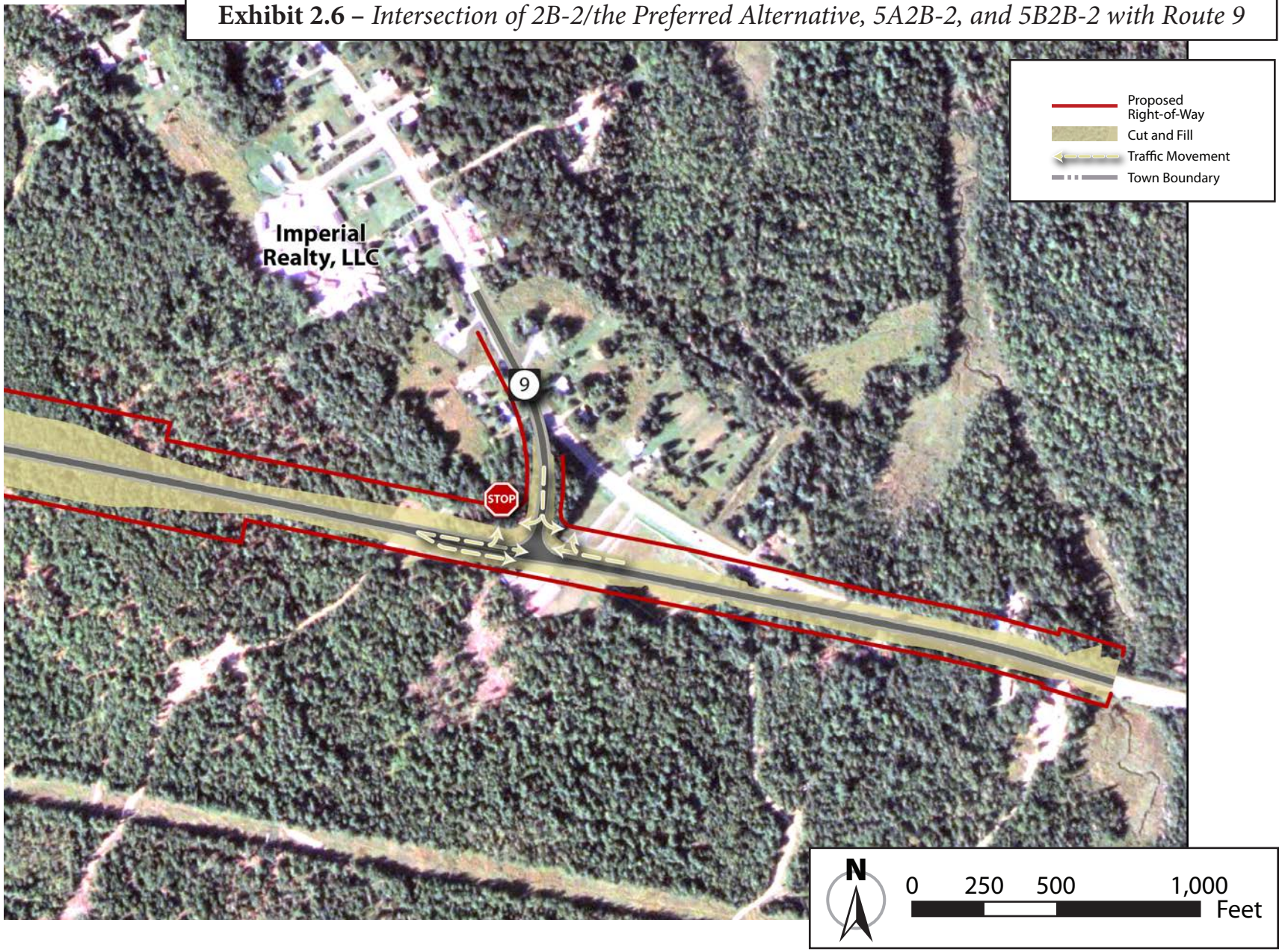


Exhibit 2.6 – *Intersection of 2B-2/the Preferred Alternative, 5A2B-2, and 5B2B-2 with Route 9*



2.3.3 Alternative 5A2B-2

Alternative 5A2B-2 would start from I-395 for approximately one mile along the southern side of Route 1A in the town of Holden before turning northward, crossing over Route 1A, and paralleling the Bangor Hydro-Electric Company utility easement and connect with Route 9 west of Chemo Pond Road (exhibit 2.7). Route 9 would not be widened to four lanes. Alternative 5A2B-2 would connect to Route 1A with a modified-diamond interchange (exhibit 2.8), which would provide all traffic movements and require two left turns across traffic. A left-turn lane would be provided on Route 1A to 5A2B-2 north. The modified-diamond interchange design would reduce the amount of property that must be acquired. It would connect to Route 9 at a "T" intersection (exhibit 2.6). Route 9 eastbound would be controlled with a stop sign.

Alternative 5A2B-2 would further the study's purpose and satisfy the system linkage need, in the near term (before 2035). Alternative 5A2B-2 would be a controlled-access highway and conceptually designed using MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an approximate 200-foot-wide right-of-way.

Route 9 would not be improved (beyond the improvements necessary to connect the preferred alternative), and it would not provide a high-speed, controlled-access connection to the east of East Eddington village. It would satisfy the study need related to traffic congestion and safety. It would satisfy the USACE's basic purpose statement.

Alternative 5A2B-2 would require the construction of a new interchange at I-395 and Route 1A in a location with poor soils and the existing interchange would need to be removed. The railroad crossings would be grade separated.

2.3.4 Alternative 5B2B-2

Alternative 5B2B-2 would continue north from the I-395 interchange with Route 1A before turning east and connecting with Route 9 west of Chemo Pond Road (exhibit 2.9). Route 9 would not be widened to four lanes. The existing I-395/Route 1A interchange would be used (to the extent possible) and expanded to become a semi-directional interchange (exhibit 2.5). The only traffic movement that would require a left turn would be Route 1A south to Alternative 5B2B-2 north. This interchange would require more land than a diamond interchange. The land required for the northern portion of the interchange is owned by the State of Maine.

Alternative 5B2B-2 would bridge over Felts Brook in two locations at the I-395 interchange. It would bridge over Eastern Avenue to the immediate east of Lambert Road and bridge over Lambert Road. It would pass under Day Road and Chewleyville Road before turning east and connecting to Route 9 at a "T" intersection (exhibit 2.6). Route 9 eastbound would be controlled with a stop sign.

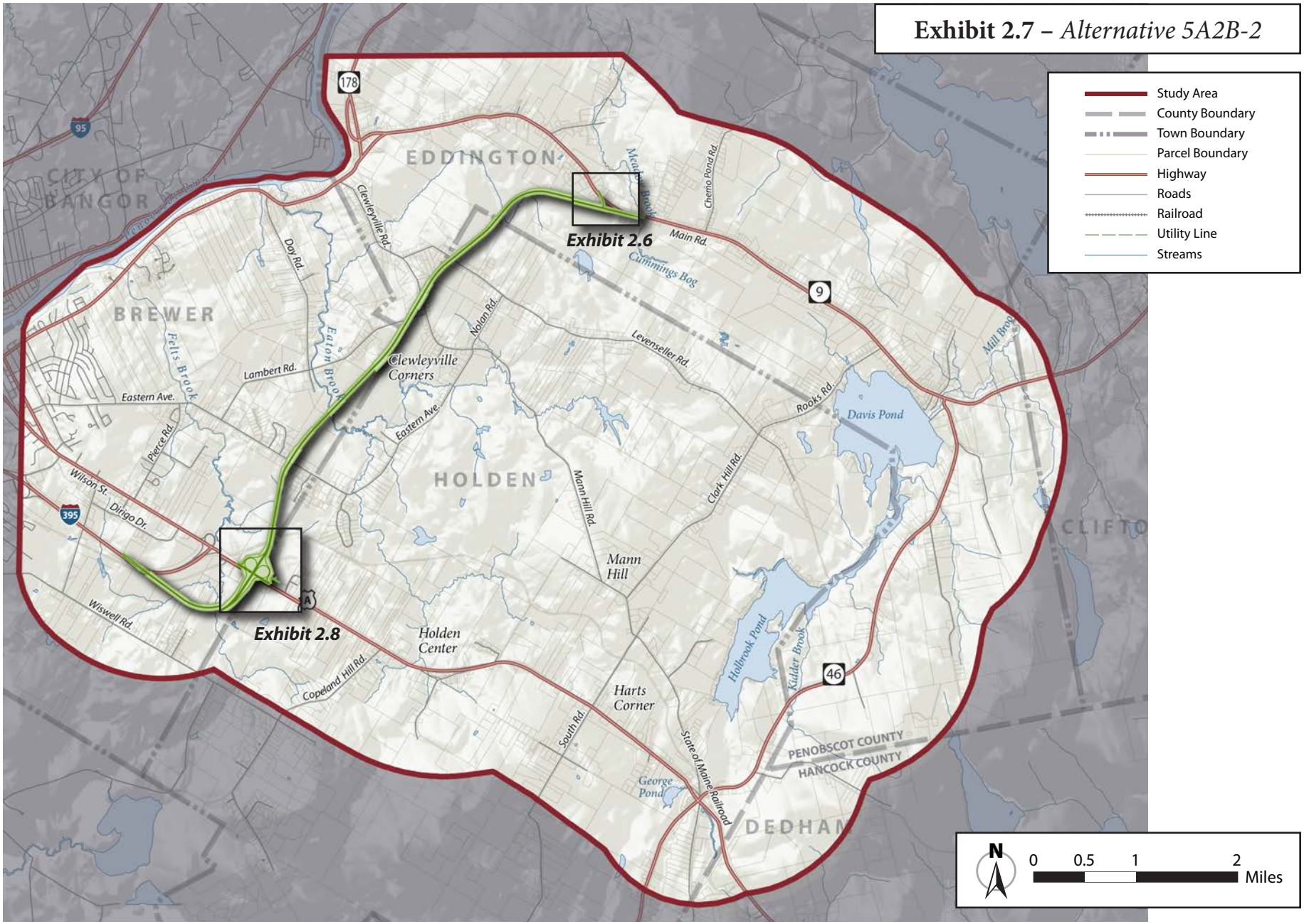
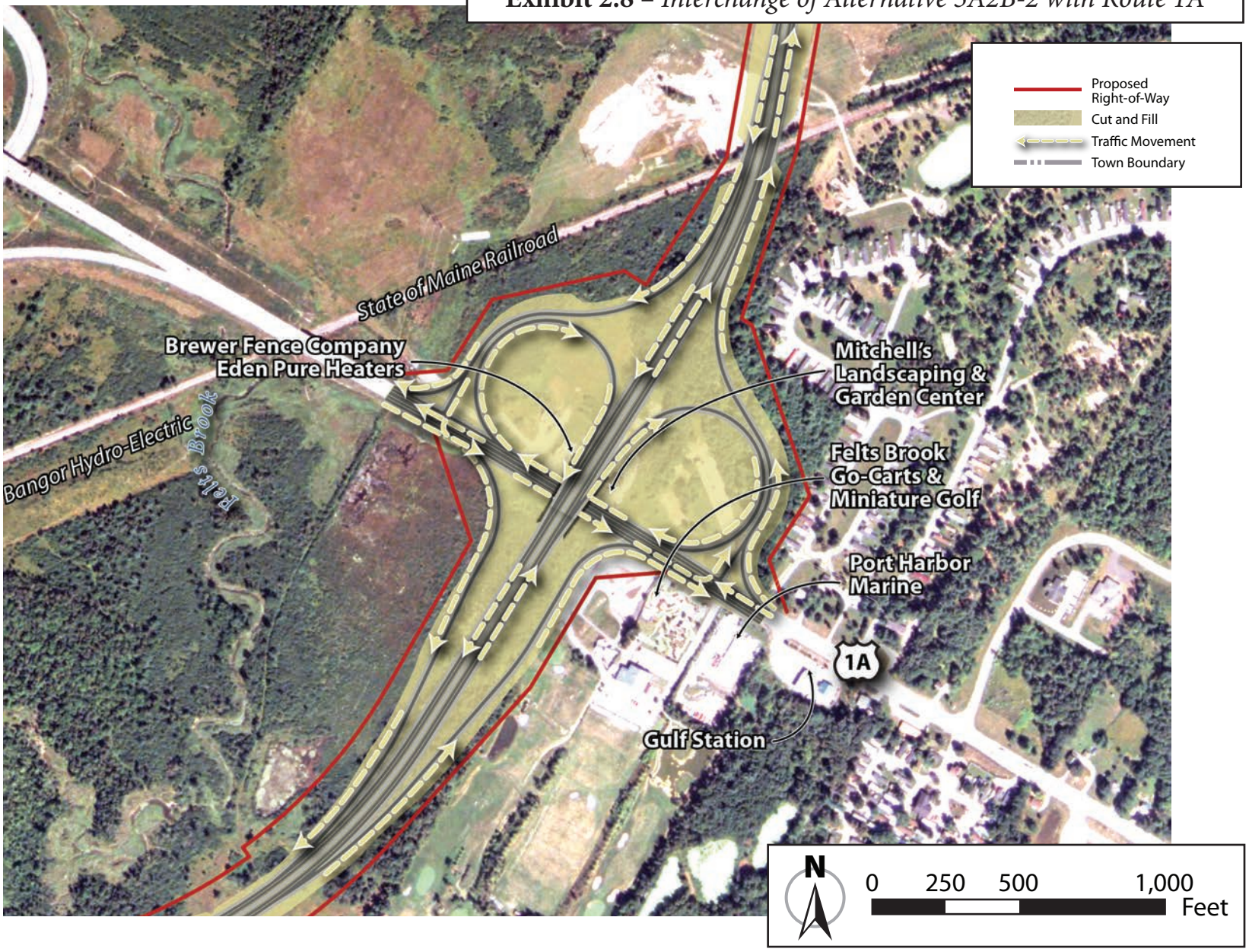


Exhibit 2.7 – Alternative 5A2B-2
Study Area
County Boundary
Town Boundary
Parcel Boundary
Highway
Roads
Railroad
Utility Line
Streams
Exhibit 2.6
Exhibit 2.8
EDDINGTON
BREWER
HOLDEN
DEDHAM
CLIFTON
CITY OF BANGOR
Clewleyville Corners
Holden Center
Harts Corner
Mann Hill
Davis Pond
Cummings Bog
Hollbrook Pond
George Pond
Main Rd.
Levenseller Rd.
Eastern Ave.
Lambert Rd.
Wilson St.
Diriga Dr.
Wiswell Rd.
Copeland Hill Rd.
Mann Hill Rd.
Clark Hill Rd.
Rooks Rd.
South Rd.
Nolan Rd.
Day Rd.
Pierce Rd.
Clewleyville Rd.
Chemo Pond Rd.
Kidder Brook
Felts Brook
Eaton Brook
Mill Brook
State of Maine Railroad
PENOBSCOT COUNTY
HANCOCK COUNTY
N
0 0.5 1 2
Miles

Exhibit 2.8 – *Interchange of Alternative 5A2B-2 with Route 1A*



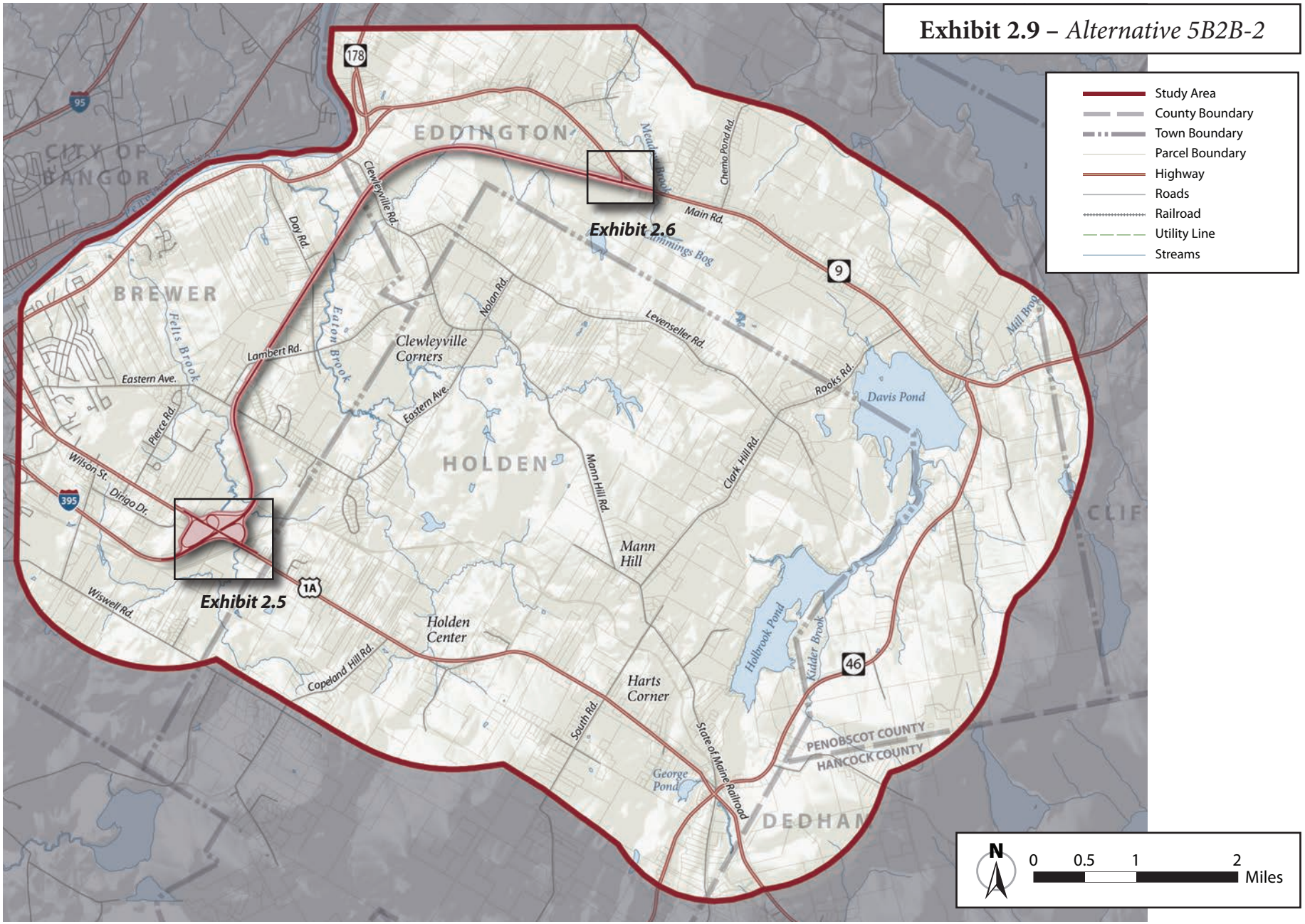


Exhibit 2.9 – Alternative 5B2B-2
Study Area
County Boundary
Town Boundary
Parcel Boundary
Highway
Roads
Railroad
Utility Line
Streams
EDDINGTON
CITY OF BANGOR
BREWER
HOLDEN
DEDHAM
Exhibit 2.6
Exhibit 2.5
Clewleyville Corners
Holden Center
Mann Hill
Harts Corner
George Pond
Davis Pond
Holbrook Pond
Meadow Brook
Cheney Pond Rd.
Main Rd.
Cummings Bog
Clewleyville Rd.
Day Rd.
Nolan Rd.
Levenseller Rd.
Rooks Rd.
Mill Brook
Eaton Brook
Felts Brook
Lambert Rd.
Eastern Ave.
Pierce Rd.
Wilson St.
Dirigo Dr.
Wiswell Rd.
Copeland Hill Rd.
Mann Hill Rd.
Clark Hill Rd.
Kidder Brook
South Rd.
State of Maine Railroad
PENOBSCOT COUNTY
HANCOCK COUNTY
178
9
46
1A
95
395
N
0
0.5
1
2
Miles

Alternative 5B2B-2 would further the study's purpose and satisfy the system-linkage need in the near term (before 2035). Alternative 5B2B-2 would be a controlled-access highway and conceptually designed using MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an approximate 200-foot-wide right-of-way.

Route 9 would not be improved (beyond the improvements necessary to connect the preferred alternative), and it would not provide a high-speed, controlled-access connection to the east of East Eddington village. It would satisfy the study need related to traffic congestion and safety. It would satisfy the USACE's basic purpose statement.

2.4 Other Activities Necessary to Construct Alternative 2B-2/ the Preferred Alternative and Estimated Construction Cost

Each build alternative would require preliminary and final engineering design, acquisition of property, and relocation of utilities prior to construction.

2.4.1 Property to Be Acquired for Alternative 2B-2/the Preferred Alternative

The build alternatives were designed to avoid and minimize the impact to properties.

The conceptual design of the build alternatives included an estimation of land that would need to be acquired and used as a right-of-way for the two-lane highway. The proposed right-of-way width for the build alternatives would be the minimum necessary to accommodate a two-lane highway and averages approximately 200 feet. The limits of the proposed right-of-way are irregular because they are a function of topography, earth-moving activities (i.e., cutting and filling), slopes, existing property boundaries, viability of remaining portions of properties acquired, and continued access to individual properties. The amount of land to be acquired for the construction and operation of the build alternatives would be minimized wherever possible.

A preliminary assessment was performed to provide a general understanding of existing properties and ownership and the extent of potential land to be acquired and used for right-of-ways to construct and maintain the build alternatives. Information was collected from aerial photography and property records from the city of Brewer and the towns of Holden, Eddington, and Clifton. Through analysis of property data, discussions with local officials, and observations, potentially impacted properties within the proposed right-of-ways for each build alternative were identified and quantified. The build alternatives would directly impact 44 to 70 properties. The area to be acquired and

used for right-of-way for the build alternatives ranges 163 to 215 acres (exhibit 2.10). The area to be acquired and used for right-of-way would be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

2.4.2 Utilities to Be Relocated

The build alternatives were designed to avoid and minimize the impact and relocation of utilities. Construction of the build alternatives would impact electric, telephone, cable television, water, and sewer utilities.

A preliminary assessment of potential impacts of the build alternatives to utilities and their required relocations was performed. Information on utilities was collected from field inspection, interviews with utility owners and representatives, review of utility records and designs, property maps, and aerial photography.

Individual utility companies would be responsible for the cost of relocating utilities inside the rights-of-way of state roads. MaineDOT would be responsible for the cost of relocating utilities located outside the right-of-ways of state roads.

2.4.3 Estimated Construction Costs

As part of the conceptual design of the build alternatives, a preliminary estimate of the cost to construct them was prepared (in 2011 dollars). The cost to construct the build alternatives ranges from $61 million to $81 million.

MaineDOT investigated tolling as one method of partially financing the operation and maintenance costs of a build alternative. MaineDOT and the Maine Turnpike Authority considered the feasibility of tolling the build alternatives to determine if tolling could generate sufficient revenue to (1) cover the construction, operations, and maintenance costs of a toll facility; and (2) provide funding to supplement the operations and maintenance costs of the build alternatives, if one is selected and advanced to construction. Tolling would not be used to supplement the funding for construction of one of the build alternatives due to the low traffic volumes (HNTB, 2010).

Exhibit 2.10 – *Summary of Property to Be Acquired*

Alternative	Displacements			Number of Affected Properties	Area to be Acquired (acres)
	Residential	Commercial	Utility		
No-Build	-	-	-	-	-
2B-2/the Preferred Alternative	8	-	-	54	163
5A2B-2	16	4	-	70	215
5B2B-2	6	-	2	44	186

The analysis considered two basic types of tolling facilities: a traditional barrier tolling facility (e.g., the York toll plaza in York, Maine) and an open-road tolling facility (e.g., the Hampton toll plaza in Hampton, New Hampshire). The analysis included the following toll schedule assumptions:

- Passenger-car cash toll rate would be $1.00 in the opening year
- Heavy-truck cash toll rate would be four times the passenger-car cash toll rate
- E-Z Pass rates would be discounted 10 percent off the cash rate
- Commuter rates would be discounted 50 percent off the cash rate
- Toll increases would occur every five years at an annual inflation rate of 2.7 percent
- Toll rates for cash-paying vehicles would be rounded to the nearest $0.05

The analysis concluded that a traditional barrier tolling facility could generate revenue to cover the costs associated with the construction, operations, and maintenance costs of a toll facility and generate approximately $155,000 annually (in 2011 dollars) to supplement the operations and maintenance costs of one of the build alternatives. The analysis further concluded that an open-road toll facility would not generate enough revenue to cover the construction, operations, and maintenance costs of a toll facility (HNTB, 2010).

Due to the small amount of revenue generated from a toll facility in comparison to the estimated cost of construction, MaineDOT is not considering tolling as a method of partially financing the operation and maintenance costs of a build alternative, if one is selected and advanced to construction.

2.5 Next Steps

After the USACE determination of the LEDPA, completion of an EIS, filing of a ROD by the FHWA, and issuance of a Section 404 permit — MaineDOT would work with the affected municipalities to develop a plan to protect the corridor of Alternative 2B-2/the Preferred Alternative from further development. Methods to protect the corridor include development of zoning and local ordinances and selective acquisition of properties as they become available for sale or at risk for further development. MaineDOT may fund these property acquisitions through its customary programming of state and federal highway-funding mechanisms. Property acquisitions and residential and business relocations would be in accordance with appropriate state and federal laws relevant to acquisition of property for highway purposes.

The acquisition of property for a right-of-way for corridor preservation could begin shortly after the NEPA/Section 404 process is completed. Once MaineDOT has

a corridor-protection system in place, it would work to develop support for a funding plan. In recent years, many states have found that state highway funds, bonding, and federal core apportionments are needed to maintain the transportation system as it exists, with little in additional funds for new capacity projects. Therefore, MaineDOT would work with the Governor, region, and state and federal legislators to devise funding strategies for the full property acquisition and ultimate construction of Alternative 2B-2/the Preferred Alternative.

MaineDOT would include funding in the DOT's next Statewide Transportation Improvement Plan for design and right-of-way acquisition, (which would be dedicated to protect the selected alternative from further development.) Construction funding would be identified subsequent to the development of design plans for the project. Given that design and right-of-way acquisition would not occur until the next work plan cycle, MaineDOT would not expect to be able to fund construction until the following work plan cycle, at the earliest.

MaineDOT would work with the town of Eddington to maintain the safety and preserve the capacity of Route 9 in the study area. MaineDOT manages access points with Maine's rules governing access management (driveway and entrance siting). Safety, traffic congestion, and system linkage remains a priority concern of MaineDOT, as is preservation of the capacity of the existing highway system. Activities that could be considered to maintain safety and preserve the capacity of Route 9, in accordance with Maine's rules governing access management (driveway and entrance siting) can go no further than working with the town of Eddington to change zoning, eliminating existing and future curb cuts, and working with individual landowners to acquire property or development rights. That authority already exists to help both MaineDOT and the community ensure that safety is maintained in the corridor. MaineDOT has no authority beyond the existing rules to force Eddington to do anything to help reduce traffic conflicts, but MaineDOT is directed by statute to work with Eddington to ensure safety and proper access to the state highway system.

MaineDOT would work with town officials and evaluate Route 9 for potential improvements to improve safety for pedestrians and bicyclists along Route 9. Providing safe access for pedestrians and bicyclists along the road system typically consists of paved shoulders, sidewalks in highly developed areas, high visibility crossings where warranted, and signage to help alert drivers of the presence of bicyclists and pedestrians on the road system. A road safety audit would be conducted in conjunction with town officials and residents to develop potential immediate and longer term improvements that the town can consider as options to improve safety for pedestrians and bicyclists.

During final design, MaineDOT would continue to refine the alignment and its right-of-way within the preferred corridor to further avoid and minimize impacts to the natural, social, and economic environments and to coordinate with those that are affected.

In addition to construction and operation of Alternative 2B-2/the Preferred Alternative, MaineDOT is committed to improving the most heavily congested section of Route 1A from I-395 to Route 46 and the intersection of Routes 46 and 9. The proposed intersection would be studied and further developed during final design and discussed at a future public meeting.

2.6 Most Essential Differences among the Alternatives to Be Considered in Decision Making

Distinct differences exist in the potential direct and indirect impacts from the build alternatives (exhibit 2.11). They help to define the alternatives and assist MaineDOT and the FHWA in identifying the preferred alternative. A full accounting of the direct, indirect, and cumulative impacts from the No-Build Alternative and the build alternatives to the natural, social, cultural, and economic environments is in Chapter 3.

Exhibit 2.11 - *Impacts of Alternatives*

Alternatives	Physical and Biological																Land Use					
				Streams																		
	Wetlands (acres)	Roadway contaminants within 100 feet[1] (acres)	Roadway contaminants within 160 feet[2] (acres)	Bridges and culverts/feet	Roadway contaminants within 100 feet[1] (acres)	Roadway contaminants within 160 feet[2] (acres)	Sediments within 3,300 feet[2] acres)	Floodplains (acres)	Vernal pools[3]/ dispersal habitat[4] (acres)	Waterfowl and wading bird habitat (acres)	Deer-wintering areas (acres)	Federally-Listed Endangered Species	Vegetation (acres)	Undeveloped habitat	Area to be acquired (acres)	Historic Properties	4(f) Properties	Residential displacements[5]	Business displacements[6]	Business impacts[7]
No-Build	-	17	64	-	0.3 ac. (17,000 sq. ft.)	0.7 ac. (29,000 sq. ft.)	12 ac.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Impacts from maintenance activities			Impacts from maintenance activities									Impacts from maintenance activities									
2B-2/the Preferred Alternative	26	31	66	5 bridges 1 culvert/ 212 feet	0.9 ac. (39,100 sq. ft.)	1.8 ac. (78,300 sq. ft.)	13 ac.	10	1/17	9 acres along Eaton Brook and its tributaries	-	Yes	103	Eliminates two blocks; fragments three blocks	163	No	No	8	-	-
5A2B-2	31	34	71	5 bridges 1 culvert/ 212 feet	0.6 ac. (24,300 sq. ft.)	1.5 ac. (63,000 sq. ft.)	18 ac.	2	1/25	20 acres along Felts Brook and 9 acres along Eaton Brook	-	Yes	136	Eliminates two blocks; fragments four blocks	215	No	No	16	Brewer Fence Company, Eden Pure Heaters, Mitchell's Landscaping and Garden Center, Town 'N Country Apartments	-
5B2B-2	30	30	80	6 bridges 1 culvert/ 222 feet	1.0 ac. (43,700 sq. ft.)	2.0 ac. (90,000 sq. ft)	17 ac.	11	1/8	3 acres along a tributary to Eaton Brook	3 acres along a tributary to Eaton Brook	Yes	102	Fragments four blocks	186	No	No	6	Bangor Hydro-Electric Co. Building, Maritimes and Northeast Pipeline Compressor Station	-

Notes:

Primary road contaminants are salt and lead.

No-Build Alternative consisted of Route 1A from I-395 to Route 46, and Route 46 from Route 1A to Route 9.

[1]Source: USACE New England District, "Compensatory Mitigation Guidance" , 2010.

[2]Source: Maine Audubon Society, "Conserving Wildlife On and Around Maine's Roads", 2007.

[3]All vernal pools are insignificant.

[4] Upland habitat within 250 ft.

[5] The taking of a residence

[6] The taking of a business

[7] An impact to the business without the taking of the business

Chapter 3

Affected Environment and Environmental Consequences

Chapter 3 is an inventory of the affected environment and a discussion of consequences and potential mitigation measures resulting from the alternatives retained for detailed study. It succinctly describes the physical, biological, social, and economic environments of the area to be affected by the alternatives. It describes the impacts of the alternatives; the adverse effects that cannot be avoided if implemented; the relationship between short-term uses of the human environment and the maintenance and enhancement of long-term productivity; and any irreversible or irretrievable commitments of resources that would result if an alternative is implemented (40 CFR part 1502.16).

3.1 Introduction

The purpose of this section is to introduce new information and present the anticipated impacts of the No-Build, and build alternatives, including Alternative 2B-2/the Preferred Alternative, on the natural, social, and economic environments, as they differ from the information presented in the DEIS. For impacts that have not changed, the affected environment information is summarized and the reader is referred to the DEIS for a complete description.

A study area of approximately 34,416 acres was identified, and a detailed analysis of the natural, social, and economic features of the study area was performed. The study area covers not only the land that would be used for the build alternatives, but also the areas that would experience direct, indirect, and cumulative impacts from them. The No-Build and build alternatives, including Alternative 2B-2/the Preferred Alternative, would not substantially impact the following resources and features:

- physical geography
- climate
- geological resources
- groundwater
- significant sand and gravel aquifers
- wild and scenic rivers
- state endangered or threatened species
- essential fish habitat (EFH)

Chapter Contents

- other protected species
- communities
- tribal trust lands
- sites containing uncontrolled petroleum and hazardous wastes
- historic resources
- archaeological resources
- traditional cultural properties
- public properties
- population, demographics, and labor force
- community characteristics and conditions
- minority and disadvantaged populations

3.2 Physical and Biological Environment

3.2.1 Soils

Many different soil types are found in the study area. Certain soil types can be classified as either hydric soils, which are characteristic of wetlands areas, or prime or potential prime farmland soils. Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop at least temporary conditions in which there is no free oxygen in the soil around roots. Generally, hydric soils correspond closely to wetlands (USDA, 1995). Prime farmland soil has the best combination of physical and chemical characteristics for producing forage and crops. Soils of statewide importance are defined as "… land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crop." For a complete description of soils, see DEIS Section 3.1.1.2 Soils.

The No-Build and build alternatives would impact soils and agricultural land (exhibit 3.1), but would not result in a substantial impact to farmland and farming operations. MaineDOT, the FHWA, and the National Resource Conservation Service (NRCS) performed an analysis of the potential impacts of the build alternatives to farmland and farming operations in accordance with the Farmland Protection Policy Act (FPPA); Form NRCS-CPA-106 was completed. The build alternatives result in scores from 49 to 57 of a possible 260. Because the scores for the build alternatives are less than 160, no further coordination is required to demonstrate compliance with the FPPA.

Construction of the build alternatives would require the removal of vegetation and earth-moving activities,

Exhibit 3.1 – *Impacts to Soils with Special Status (acres)*

Alternative	Hydric Soils	Prime Farmland Soils	Soils of Statewide Importance
No-Build	–	–	–
2B-2/the Preferred Alternative	23 (0.3%)	19 (0.8%)	14 (0.3%)
5A2B-2	24 (0.3%)	14 (0.6%)	34 (0.8%)
5B2B-2	25 (0.3%)	19 (0.8%)	19 (0.4%)

thereby exposing soil to erosive forces. Construction precludes the use of functioning soil for other uses such as native vegetation support. During construction, sediment- and erosion-control procedures to control both coarse and fine sediment would be implemented. These measures would be in accordance with Section II of MaineDOT's *Best Management Practices Manual for Erosion and Sedimentation Control* (MaineDOT, 2008a).

3.2.2 Aquatic Resources

3.2.2.1 Water Resources

The predominant surface water features in the study area are the Penobscot River, Felts Brook, Eaton Brook, Kidder Brook, Meadow Brook, Mill Brook, Davis Pond (also known as Eddington Pond), and Holbrook Pond (exhibit 3.2). The study area is located in the Lower Penobscot River watershed; many subwatersheds are also located in the study area. For a complete description of the lakes, rivers, creeks, and watershed areas in the study area, see the DEIS Section 3.1.2.1 Water Resources.

The No-Build Alternative would impact surface waters through stormwater runoff and from routine maintenance such as surface and shoulder work; ditch, bridge, and culvert maintenance; and snow and ice removal.

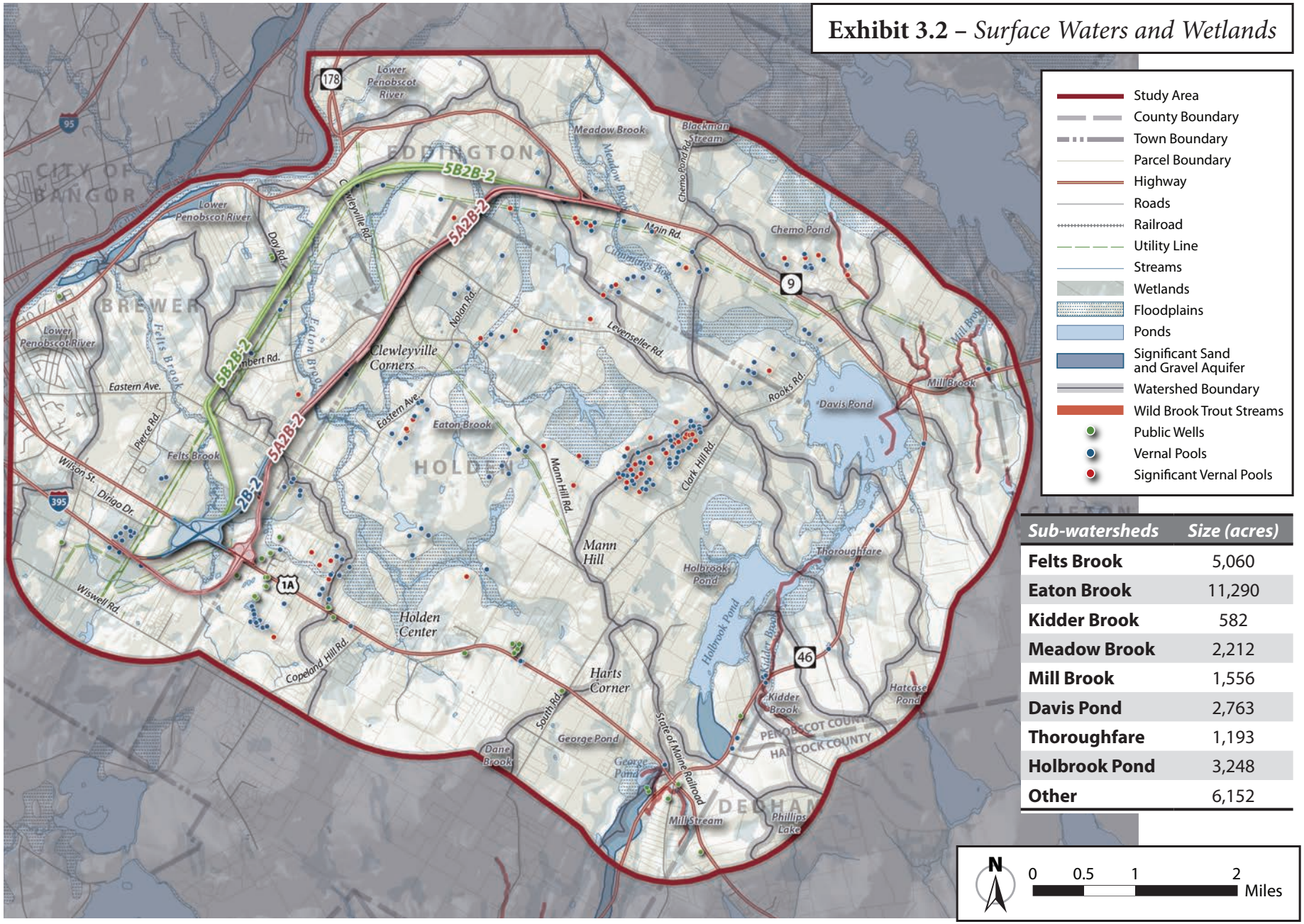
The build alternatives would impact four or five streams; streams would be impacted by bridging them and enclosing portions in culverts, or both, in one or more locations. The bridges would span the streams and in-stream activity would be temporary and limited to the area of the bridge. The build alternatives would enclose portions of streams in culverts ranging from approximately 212 to 222 feet (exhibit 3.3).

During final design of Alternative 2B-2/the Preferred Alternative, MaineDOT would further evaluate opportunities to shorten the width of road-stream crossings, preserve the natural stream bottoms in the road-stream crossings, and promote passage of aquatic organisms. Stream crossings would be designed in accordance with MaineDOT's Waterway and Wildlife Crossing Policy and Design Guide (MaineDOT, 2008e), except in cases where the drainage is not a stream.

Impervious areas increase the quantity of stormwater runoff and the potential for non-point source pollution. Water from storms that is not absorbed into the ground is discharged into surface waters at higher rates. Higher discharge rates increase the likelihood of contaminants or sediments entering the stream systems and subsequently affecting water quality.

New road-stream crossings increase non-point source discharge during construction and, over the long term, may alter stream and floodplain hydrology. The likelihood that waterborne pollutants would enter surface waters is determined, in part, by the proximity of the new impervious area. Increasing impervious

Exhibit 3.2 – *Surface Waters and Wetlands*



Sub-watersheds	Size (acres)
Felts Brook	5,060
Eaton Brook	11,290
Kidder Brook	582
Meadow Brook	2,212
Mill Brook	1,556
Davis Pond	2,763
Thoroughfare	1,193
Holbrook Pond	3,248
Other	6,152

N

0 0.5 1 2 Miles

Exhibit 3.3 – *Impacts to Streams*

Waterway	New Impervious Area (acres)	Unnamed Tributary to Felts Brook	Felts Brook	Unnamed Tributary to Felts Brook	Eaton Brook	Unnamed Tributary to Eaton Brook	Total (number of bridges & number of crossings/feet)
Length (feet)		*8,100*	*33,500*	*5,800*	*37,000*	*19,200*	
No-Build							
2B-2/the Preferred Alternative	38		2 bridges - 250 feet	1 bridge - 25 feet	1 bridge - 100 feet	1 bridge - 100 feet 1 culvert - 212 feet, 5-foot diameter	5 bridges - 475 feet 1 culvert - 212 feet
5A2B-2	46	1 bridge - 25 feet	1 bridge - 25 feet	1 bridge - 25 feet	1 bridge - 100 feet	1 bridge -100 feet 1 culvert - 212 feet, 5-foot diameter	5 bridges- 275 feet 1 culvert - 212 feet
5B2B-2	42		2 bridges - 250 feet	1 bridge - 25 feet	1 bridge - 100 feet	2 bridges - 325 feet 1 culvert - 222 feet, 5-foot diameter	6 bridges - 700 feet 1 culvert - 222 feet

Notes: *25 feet was added to both ends of the road-stream crossing.*
Bridges span waters with no in-stream activity.

areas within 500 feet of a stream may increase peak flow rates of runoff into the stream leading to alteration of the stream morphology. It also reduces the area available to attenuate materials that are washed off the roadway from a storm, which leads to sedimentation and contamination. MaineDOT designs new road-stream crossings in accordance with applicable state and federal regulatory standards relating to aquatic organism passage, primarily by using MaineDOT's Waterway and Wildlife Crossing Policy and Design Guide (MaineDOT, 2008e), except in cases where the drainage is not a stream. The proposed road-stream crossings would span the streams at a width that is 1.2 times the bankful width (i.e., 20 percent larger than a full stream) and use either a bottomless structure or a four-sided structure with stream simulation design and natural substrate installed (See Appendix C). The substrate inside of the structure would emulate the preexisting substrate of the surrounding stream and banks would mimic terrestrial passage characteristics. Whenever practicable, new road-stream crossings are designed to retain natural stream beds and associated banks to preserve natural stream characteristics and negate the need for stream simulation or engineered passage. Specifications for the road-stream crossings would be part of the final design phase and consider existing conditions, and avoid and minimize impacts to stream habitats.

A short-term increase in the potential for sediment loading to surface waters exists. Impacts from sedimentation caused by construction would be

temporary. During final design of Alternative 2B-2/the Preferred Alternative, the highway drainage system would be designed to minimize the transport of sediments and other particulates to surface waters. Buffers improve water quality by helping to filter pollutants in run-off both during and after construction. Best management practices would be implemented during and after highway construction to reduce the water quality impacts of stormwater discharges to surface waters. Erosion and sedimentation control measures would be incorporated into the design and implemented during construction in accordance with Section II of MaineDOT's *Best Management Practices Manual for Erosion and Sedimentation Control* (MaineDOT, 2008a) and designed in accordance with the MDEP/MaineDOT/Maine Turnpike Authority Memorandum of Agreement, Stormwater Management, November 14, 2007 and Chapter 500 Rules. MaineDOT understands the potential detrimental effects that winter maintenance initiatives may have on the environment. MaineDOT has worked diligently to ensure cost-efficient efforts are undertaken in a manner that maintains a high level of safety for the traveling public while minimizing impacts to the environment. This is especially true relative to MaineDOT's actions associated with the protection of groundwater. Maine State Law requires that MaineDOT remedy adverse impacts to residential or commercial potable-water supplies caused by winter maintenance activities; however, it has long been MaineDOT's approach to proactively prevent adverse impacts to water quality in lieu of remediation. Conservatively, MaineDOT uses the secondary drinking water standard established for chloride as the primary indicator of adverse impact.

MaineDOT has a wide array of techniques in its "toolbox" to assist in minimizing impacts to the groundwater regime. Many of the techniques used are detailed in the U.S. Environmental Protection Agency's Source Water Protection Bulletin – Managing Highway Deicing to Prevent Contamination of Drinking Water and include the use of alternative anti-icing chemicals, strategically positioned road weather information systems, properly designed and calibrated application equipment, effective pre-treatment tactics and an aggressive employee training, outreach and education program. Integrated with its pragmatic use of anti-icing chemicals (data consistently shows MaineDOT uses much less anti-icing chemicals per lane mile than other northeastern states), a thoroughly-considered approach to maintaining safe passage for emergency responders, commercial goods and the traveling public in a fiscally prudent and environmentally-sound manner is achieved.

During final design of Alternative 2B-2/the Preferred Alternative, MaineDOT would conduct a Pre-Construction Potable Water Supply Characterization

Assessment prior to construction. This assessment is undertaken to establish a baseline relative to the quality of water extracted from residential and commercial potable water supplies located along the project corridor. Samples are typically collected from water supplies positioned adjacent to the proposed construction and are analyzed for coliform bacteria, nitrate, nitrite nitrogen, fluoride, chloride, hardness, copper, iron, arsenic, manganese, sodium, lead, uranium, pH, color, turbidity and odor. The analytical data is maintained in a state-wide database and is used for comparison purposes should any potential claims arise relative to water supply impacts associated with MaineDOT's construction or long term winter maintenance initiatives.

MaineDOT would be required to meet the General Standards under Chapter 500 to the extent practicable as determined through consultation with and agreement by MDEP. Under the Chapter 500 General Standards for a linear project, MaineDOT would be required to treat 75 percent of the linear portion of Alternative 2B-2/the Preferred Alternative's impervious area and 50 percent of the developed area that is impervious or landscaped for water quality. To meet the General Standards, a project's stormwater management system must include treatment measures that would mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts.

There are no known receiving waters in the project corridor that have existing issues or impairment related to chloride concentrations.

Additionally, MaineDOT would consider green infrastructure and low-impact development practices such as reducing impervious surfaces, using vegetated swales and revegetation, protecting and restoring riparian corridors, and using porous pavements.

3.2.2.2 Aquatic Habitats and Fisheries

The Penobscot River watershed provides a migratory pathway, feeding area, spawning area, nursery area, and valuable habitat for a variety of fish species, some that are harvested both commercially and recreationally. According to the Maine Department of Inland Fisheries and Wildlife (MDIFW), the Penobscot River watershed serves as a migratory pathway, spawning area, nursery, and feeding area for a variety of diadromous fish species, including the Atlantic salmon, alewife, blueback herring, American shad, American eel, Atlantic sturgeon, shortnose sturgeon, striped bass, sea lamprey, rainbow smelt, and brook trout. Rainbow smelt and alewives are harvested commercially.

The principal game fish species in the study area are lake trout, brook trout, brown trout, smallmouth bass,

largemouth bass, white perch, yellow perch, pickerel, rainbow smelt, hornpout (i.e., brown bullhead), white sucker, pumpkinseed, and redbreast sunfish (Town of Holden, 2007). According to the MDIFW, there are populations of high value eastern brook trout in Felts Brook and Eaton Brook, and populations of non-native invasive black crappie in Eddington and Holbrook Ponds. For a complete description of aquatic habitats and fisheries, see the DEIS Section 3.1.2.2, Aquatic Habitats and Fisheries.

The No-Build Alternative would not impact aquatic habitats or fisheries.

The build alternatives would impact aquatic habitats and fisheries through the road-stream crossing and channelization of streams (exhibit 3.3). Because road-stream crossings with natural bottoms would be used, small amounts of stream channel bottom habitat would be temporarily impacted during construction.

Road-stream crossings can create restrictions or localized changes in flows so that animal movement could be inhibited. MaineDOT's Waterway Crossing Policy and Design Guide (MaineDOT, 2008e) is intended to reduce the likelihood that road-stream crossings would create a barrier to the movement of aquatic organisms. MaineDOT would further evaluate opportunities to shorten the width of road-stream crossings and preserve the natural stream bottoms. Road-stream crossings would be designed in accordance with MaineDOT Waterway and Wildlife Crossing Policy and Design Guide (MaineDOT, 2008e), except in cases where the drainage is not a perennial stream. Stream crossings would be evaluated for aquatic-organism passage and impacts would be mitigated by providing passage. Stream-bank impacts would be minimized by revegetation.

During final design, MaineDOT would analyze opportunities to further minimize impacts to aquatic habitat and fisheries.

3.2.2.2.1 Magnuson–Stevens Fishery Conservation and Management Act and Sustainable Fisheries Act of 1996.

The 1996 amendments to the Magnuson–Stevens Fishery Conservation and Management Act (Magnuson–Stevens Act) require that an essential fish habitat assessment be conducted for any activity that may adversely affect important habitats of federally managed marine and anadromous fish species. Under Section 303(a)(7) of the Magnuson–Stevens Act, as amended, EFH must be properly described and identified for those species considered under Federal Fishery Management Plans. According to 16 USC 1802(10), EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." "Waters" refers to the aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas

historically used by fish. "Substrate" refers to sediment, hard bottom, or other underwater structures and their biological communities. The term "necessary" indicates that the habitat is required to sustain the fishery and support the fish species' contribution to a healthy ecosystem. These regulatory requirements are intended (to the extent practicable) to minimize adverse impacts on habitat caused by fishing or other non-fishing activities, and to identify other actions to encourage the conservation and enhancement of EFH. EFH can be designated for four life stages: eggs, larvae, juveniles, and adults.

In the study area, freshwater Atlantic salmon habitat is the only EFH present (MaineDOT, 2013b).

The No-Build Alternative would not impact EFH.

The build alternatives would impact EFH through the construction of four road-stream crossing and channelization of streams (exhibit 3.3). The road-stream crossings may affect Atlantic salmon during their juvenile stage (exhibit 3.4). Construction of the road-stream crossings increases temporary sedimentation within 600 feet downstream of each crossing that could affect migrating adult salmon. The construction of temporary cofferdams (a temporary enclosure built in or across a body of water and constructed to allow the enclosed area to be pumped out, creating a dry area for construction to proceed) may inhibit Atlantic salmon use of waters for rearing and foraging. The benthic communities of the streams in proximity to the road-stream crossings would be disturbed during construction.

The proposed crossings would span the streams at a width that is 1.2 times the bankful width (i.e., 20 percent larger than a full stream) and use either a bottomless structure or a four-sided structure with stream simulation design and natural substrate installed. Stream crossings would be designed in accordance with MaineDOT's Waterway and Wildlife Crossing Policy and Design Guide (MaineDOT, 2008e). An open work window with restrictions for in-stream work would be used to construct the project. If construction must take place outside of the July 15–October 1 work window, fish passage would be maintained through the use of a bypass channel. During final design, MaineDOT would analyze opportunities to further minimize impacts to EFH by considering

Exhibit 3.4 – *Managed Species by Life-History Stage*

Stage	Atlantic Salmon
Eggs	F/gravel or cobble riffles/below 10° C (50 F)/shallow
Larvae	F/gravel or cobbles/below 10° C (50 F)/shallow
Juveniles	F/shallow gravel and cobbles/below 10° C (50 F)/4 to 20 inches
Adults	F,M,S/ pelagic/oceanic when not returning to spawn
Spawning Adults	F/gravel or cobble riffles/below 10 ° C (50 F)/12 to 20 inches (October and November)

Legend: *salinity code/substrate type/water temperature/water depth*
S = seawater salinity zone (salinity > 25.0%)
M = mixing water/brackish salinity zone (0.5 < salinity < 25.0%)
F = freshwater salinity zone (0.0 < salinity < 0.5%)

minor shifts in the alignment of Alternative 2B-2/the Preferred Alternative.

The MaineDOT concluded the adverse effect from the construction and operation of Alternative 2B-2/ the Preferred Alternative on EFH is not substantial. An EFH Assessment was submitted to NMFS on October 1, 2013 for impacts from Alternative 2B-2/ the Preferred Alternative. NMFS responded, in writing, on October 22, 2013 stating they do not have any conservation recommendations at this time.

3.2.2.2.2 Vernal Pools

According to the MDEP, vernal pools or "spring pools" are shallow depressions that usually contain water for only part of the year. It is a natural, temporary, or semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may be dry during the summer. Vernal pools are defined as temporary pools that serve as reproductive habitat for amphibians such as spotted salamanders, blue-spotted salamanders, and wood frogs. Those species breed primarily in vernal pools because the temporary nature of the pools supports invertebrate food sources and discourages colonization of predatory fish.

According to the MDEP, a vernal-pool habitat is considered significant wildlife habitat if it has high habitat value. "Significant vernal pools" are a subset of vernal pools with particularly valuable habitat. The State of Maine deems that a vernal pool is significant if it meets one of the following criteria. The criteria are:

- It supports a state-listed threatened or endangered species
- It supports abundant egg masses of any one of the following amphibian indicator species: spotted salamanders, blue-spotted salamanders, or wood frogs. (Egg-mass numbers vary with species and were based on extensive surveys of pools throughout Maine.) The abundance criteria on vernal pools being significant is 10 or more egg masses of the blue-spotted salamander, 20 or more egg masses of the spotted salamander, 40 or more egg masses of the wood frog. Egg mass counts are a surrogate of indication of productivity.
- It supports fairy shrimp.

Starting on September 1, 2007, significant vernal pool habitat is protected by law under the NRPA. Development within 250 feet of a significant vernal-pool requires a MDEP permit (MDEP, 2008).

The USACE and federal resource agencies typically use the concentric-circle model with recommended management zones (including 750 feet of "critical terrestrial habitat") to assess indirect impacts to the critical terrestrial habitat around a vernal pool. This was first introduced in the Calhoun and Klemens (2002) "Best Development Practices Conserving

Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States" and is mentioned in the USACE New England District's Compensatory Mitigation Guidance.

There were 251 vernal pools identified in the study area: 55 significant and 196 that do not meet the significant criteria (exhibit 3.2).

For a complete description of vernal pools, see the DEIS Section 3.1.2.2 Aquatic Habitats and Fisheries under the vernal pools heading.

The No-Build Alternative would not impact vernal pools.

The build alternatives would impact/fill one non-significant vernal pool (the same vernal pool for all three build alternatives) and its upland dispersal habitat and wetland habitats (exhibit 3.5). No significant vernal pools would be impacted. The build alternatives may impact upland dispersal habitat and wetland habitats from vernal pools not within the alignments of a build alternative.

The perimeter of vernal pools in and adjacent to Alternative 2B-2/the Preferred Alternative would be reevaluated and identified by MaineDOT during final design. During final design of Alternative 2B-2/the Preferred Alternative, MaineDOT would work to further avoid and minimize impacts to upland dispersal habitat and wetland habitats for vernal pools by considering minor shifts in the alignment of Alternative 2B-2/the Preferred Alternative and increasing the slope of fill material.

3.2.2.3 Floodplains

Federal protection of floodplains is afforded by Executive Order 11988, "Floodplain Management," and implemented under 44 CFR 9. These regulations direct federal agencies to undertake actions to avoid impacts on floodplain areas by structures built in flood-prone areas. In accordance with these federal directives, the FHWA also enacted federal-aid policy guidance and regulations under 23 CFR 650. The Federal Emergency Management Agency (FEMA) has primary responsibility for identifying flood-prone areas.

Exhibit 3.5 – *Impacts to Vernal Pools*

Alternative	Number of Vernal Pools	Significant		Dispersal Habitat within 250 feet (ac.)	Dispersal Habitat within 750 feet (ac.)	Total
		Yes	No			
No-Build				54	480	
2B-2/the Preferred Alternative	1		x	17	278	1
5A2B-2	1		x	25	395	1
5B2B-2	1		x	8	146	1

Source: USACE, NEW England District, "Compensatory Mitigation Guidance", 2010.

The study area contains land that could be inundated by a flood of a magnitude that has a one percent chance of being equaled or exceeded in any given year (i.e., 100-year floodplain). Approximately 3,322 acres (9.7 percent) of the study area is identified as an area located within the 100-year floodplain (exhibit 3.2). For a complete description of floodplains in the study area, see the DEIS Section 3.1.2.3 Floodplains.

In accordance with Executive Order 11988, Floodplain Management, impacts on floodplains and floodplain encroachments were considered for the No-Build Alternative and the build alternatives. Encroachments are considered significant under Executive Order 11988 if at least one of the following factors is applicable:

- It has a significant effect on natural and/or beneficial floodplain values.
- It would increase the risk of flooding that could result in the loss of life or property.
- It would significantly impact or otherwise disrupt vital services, facilities, or travel routes.

Impacts to floodplains result from:

- reduction of flood storage from filling
- increase in tailwater elevations at road-stream crossings

Exhibit 3.6 – *Impacts to Floodplains (acres/percentage)*

Alternative	Watersheds		
	Felts Brook	Eaton Brook	Total
No-Build	–	–	–
2B-2/the Preferred Alternative	8	2	10 (0.3%)
5A2B-2	–	2	2 (0.0%[1])
5B2B-2	8	3	11 (0.3%)

[1]*Impact to floodplains less than one tenth of one percent.*

The No-Build Alternative would not impact floodplains.

The build alternatives would not impact floodplains in the Kidder Brook, Meadow Brook, Mill Brook, the Thoroughfare, Davis Pond, or Holbrook Pond watersheds. The build alternatives would impact two to 11 acres of floodplains with most of the impacts occurring in the Felts Brook watershed (exhibit 3.6).

Floodplains have been avoided to the extent possible. Where impacts could not be avoided, the build alternatives were designed to cross floodplains in remote areas and at the narrowest location practical while avoiding and minimizing impacts to other features. Enclosures have been conceptually designed and placed to minimize impacts to floodplains.

Alternative 2B-2/the Preferred Alternative would not result in a significant impact to floodplains.

During final design, the MaineDOT would work to further avoid and minimize impacts to floodplains by

considering minor shifts in the alignment of Alternative 2B-2/the Preferred Alternative and increasing the slope of fill material that could reduce the amount of fill material placed in floodplains. The road-stream crossings were conceptually designed; detailed hydraulic analysis to size the road-stream crossings would be performed during final design. If during final design, it is determined that there would be lost storage volumes, it would be mitigated.

3.2.2.4 Wetlands

Wetlands are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (USACE, 1987).

Wetlands were identified using a combination of mapping from the National Wetlands Inventory (NWI), hydric soils determined by the U.S. Department of Agriculture (USDA), the NRCS, and a field reconnaissance of portions of the study area. The NWI is a program administered by the USFWS for mapping and classifying wetlands resources in the United States.

Approximately 10,962 acres (31.9 percent) of the study area is wetlands (exhibit 3.2). Large wetland complexes are located along the Thoroughfare between Davis Pond and Holbrook Pond, at Cummings Bog south of Route 9, and along the Felts Brook and Eaton Brook stream corridors. For a complete description of wetlands in the study area, see the DEIS Section 3.1.2.4 Wetlands.

In accordance with Executive Order 11990, Protection of Wetlands, agencies shall avoid undertaking or providing assistance for new construction in wetlands unless:

- there is no practicable alternative to such construction
- the proposed action includes all practicable measures to minimize harm to wetlands that may result from its use

Impacts to wetlands result from:

- direct filling of a habitat
- impacts to functions and values
- indirect impacts to wetlands by siltation or hydrologic alterations
- conversion of one habitat to another

The No-Build Alternative would impact wetlands through stormwater runoff and from routine maintenance such as surface and shoulder work; ditch, bridge, and culvert maintenance; and snow and ice removal.

The build alternatives would impact 26 to 31 acres (0.2 to 0.3 percent) of wetlands (exhibit 3.7). The

Exhibit 3.7 – *Impacts to Wetlands by Watershed (acres/percentage)*

Alternative	Wetlands Types				Total
	Emergent	Forested	Scrub-Shrub	Unconsolidated Bottom	
Total					
No-Build					
2B-2/the Preferred Alternative	2	21	3		26 (0.2%)
5A2B-2	1.5	23	6	0.5	31 (0.3%)
5B2B-2	1	25	4		30 (0.3%)
Felts Brook Watershed					
No-Build					
2B-2/the Preferred Alternative	1	6	2		9 (0.6%)
5A2B-2	0.5	8	5	0.5	14 (0.9%)
5B2B-2		9	1		10 (0.7%)
Eaton Brook Watershed					
No-Build					
2B-2/the Preferred Alternative	1	12	1		14 (0.4%)
5A2B-2	1	12	1		14 (0.4%)
5B2B-2	1	13	3		17 (0.5%)
Meadow Brook Watershed					
No-Build					
2B-2/the Preferred Alternative		3			3 (0.5%)
5A2B-2		3			3 (0.5%)
5B2B-2		3			3 (0.5%)

approximately 15 to 18 wetlands impacted range from small isolated areas to large, expansive areas comprising hundreds of acres; these wetlands are in the Felts Brook, Eaton Brook, and Meadow Brook watersheds.

Wetlands have been avoided to the extent possible while avoiding and minimizing impacts to other features.

To minimize impacts where further avoidance was not possible, fill material was designed with 1:1 side slopes (2:1 slopes were used when not in proximity to wetlands); MaineDOT would reduce the right-of-way clearing to the minimum necessary and minimize clear zones at wetlands and streams. Wetlands would be delineated and a detailed assessment of the functions provided by these wetlands would be performed during final design of Alternative 2B-2/the Preferred Alternative. During final design, MaineDOT would work to further minimize impacts to wetlands by considering minor shifts in the alignment of Alternative 2B-2/the Preferred Alternative and increasing the slope of fill material that could reduce the amount of fill material placed in wetlands. During final design of Alternative 2B-2/the Preferred Alternative, MaineDOT would continue to coordinate with the federal and state regulatory and resource agencies.

MaineDOT submitted a preliminary Section 404 Permit Application to the USACE for the discharge of fill material into waters of the United States. MaineDOT would prepare and submit an NRPA Permit application to the MDEP during final design of Alternative 2B-2/the Preferred Alternative. MaineDOT would coordinate the identification and development of compensatory mitigation with federal and state regulatory and resource agencies (see section 3.10).

Only Practicable Alternative Finding. In accordance with Executive Order 11990, Protection of Wetlands, MaineDOT and FHWA have avoided wetlands to the extent practicable and there are no practicable alternatives to the proposed action. The proposed action includes all practicable measures to minimize harm to wetlands by avoiding wetlands to the extent possible, using bridges instead of culverts, using bridges that span streams at a width that is 1.2 bankful (i.e., 20 percent larger than a full stream), using oversized culverts, steepening slopes in proximity to wetlands, and crossing wetlands at the narrowest location practicable while avoiding and minimizing impacts to other features.

Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and the proposed actin includes all practicable measures to minimize harm to wetlands which may result from such use.

3.2.3 Vegetation

Forests in Penobscot County are dominated by two forest types: the spruce/fir group and the northern hardwoods group (USDA Forest Service, 2005). The spruce/fir forest type typically consists of species such as red spruce, black spruce, balsam fir, and northern white cedar. Eastern hemlock and white pine are also frequently occurring coniferous species. The northern hardwood forests in Penobscot County are typically dominated by sugar maple, red maple, yellow birch, beech, and poplar. Approximately 28,538 acres of the study area is vegetated, including approximately 22,736 acres (66.1 percent) of forest vegetation. The forested areas consist of approximately 16,894 acres (74.3 percent) of deciduous forest, 5,013 acres (22.1 percent) of mixed forest, and 829 acres (3.6 percent) of coniferous forest. For a complete description of vegetation in the study area, see the DEIS Section 3.1.3 Vegetation.

The No-Build Alternative would impact vegetation through stormwater runoff and from routine maintenance

Exhibit 3.8 – *Impacts to Vegetation (acres/percentage)*

Alternative	Agricultural	Grassland/ Mowed Grass	Shrub/ Dense Shrub	Deciduous Forest	Coniferous Forest	Mixed Forest	Total
No-Build							
2B-2/the Preferred Alternative	14	6	11	64	0[1]	8	103 (0.4%)
5A2B-2	15	7	29	69	0[1]	16	136 (0.5%)
5B2B-2	20	6	18	57	0	1	102 (0.4%)

Note: *[1] Impact less than a half-acre.*

such as surface and shoulder work; ditch, bridge, and culvert maintenance; mowing, brush control and other vegetation management; and snow and ice removal.

The build alternatives would impact 102 to 136 acres (0.4 to 0.5 percent, respectively) of vegetation (exhibit 3.8). Deciduous forests would be impacted to a greater extent than other general types of vegetation. The total amount of vegetation in the study area impacted by each build alternative is less than one percent.

The build alternatives may create an opportunity to introduce invasive species to the study area. Roadside erosion-control plantings, drainage ditches, maintenance and construction fill, automobiles and boats traveling from areas infested by invasive species, and animals traveling along roadways provide a means for invasive species to disperse. Roadside erosion into wetlands and streams allows invasive species to gain a foothold as native vegetation is scoured or smothered by eroding soils. MaineDOT plants only native species on construction sites to reduce the spread of invasive species.

Some invasive species are damaging to ecosystems to which they are introduced; others negatively affect agriculture and other human uses of natural resources or impact the health of both animals and humans. Common invasive species found in Maine are oriental bittersweet, Japanese knotweed, Norway maple, multiflora rose, and Morrow's honeysuckle.

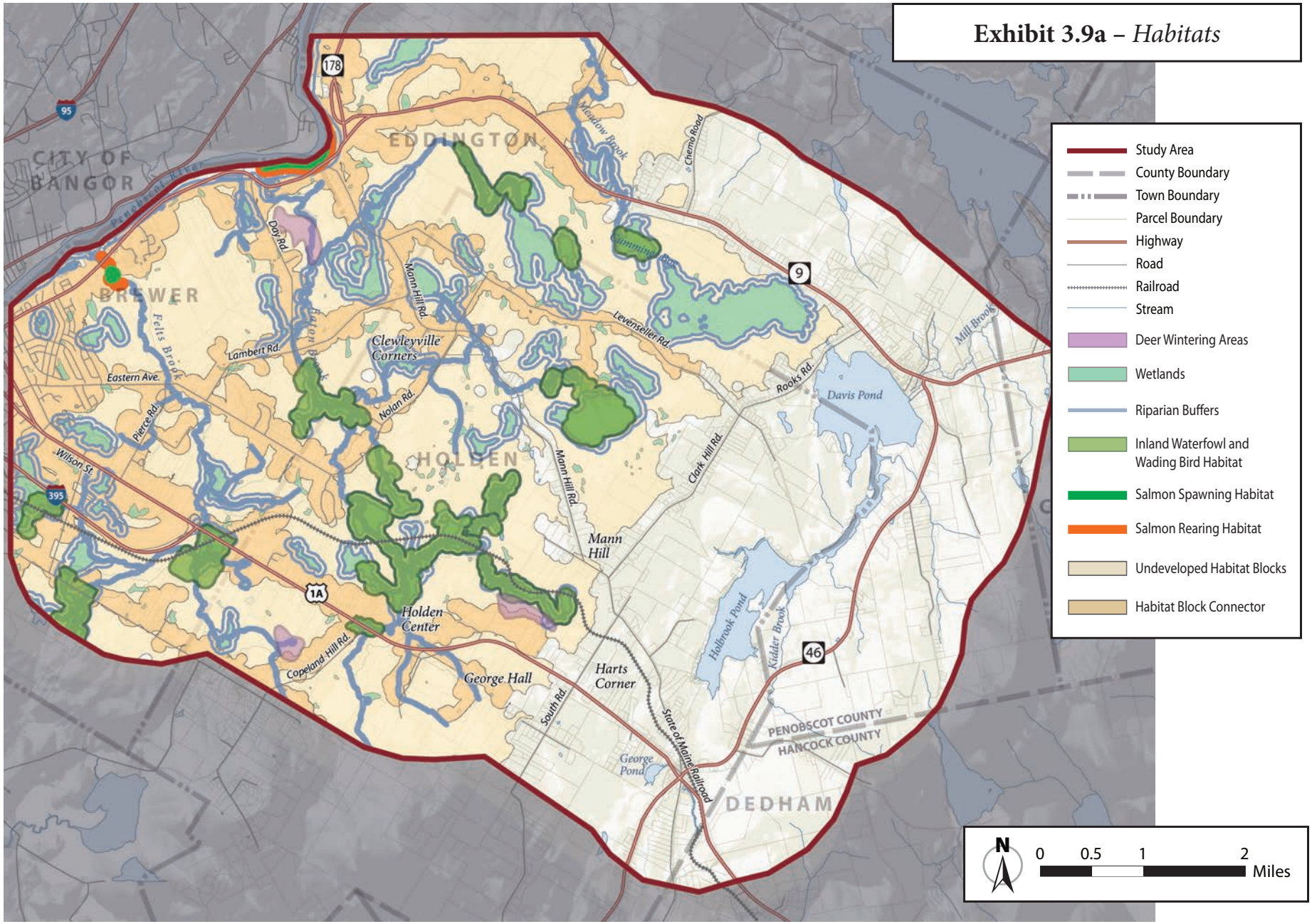
3.2.4 Wildlife Habitats and Wildlife

Approximately 28,538 acres (83%) of the study area is wildlife habitat. These areas contain forests, grasslands, wetlands, and agricultural fields.

3.2.4.1 Wildlife Habitats

Beginning with Habitat, a collaborative program of federal, state and local agencies and non-governmental organizations, is a habitat-based approach to conserving wildlife and plant habitat on a landscape scale. Beginning with Habitat provides maps and information about important habitat features to help promote habitat conservation in local land use planning and decisions (exhibit 3.9a).

Undeveloped habitat blocks are defined by the Beginning with Habitat program as blocks of wildlife habitat that are undeveloped, typically not affected by intense human development, more than 100 acres in size, and outside a 500-foot buffer from improved roads. There are 20 blocks of undeveloped habitat in the study area according to the Beginning with Habitat program. The undeveloped habitat blocks were analyzed with the two Bangor Hydro-Electric Company utility easements as features fragmenting habitat. Some of these blocks extend beyond the study area. The total acreage of undeveloped habitat blocks in their entirety is approximately 182,000. The 20 undeveloped habitat blocks range in size from 103 to 108,216 acres.



Source: *Beginning with Habitat, 2013*
Note: *Beginning with Habitat data not available for entire study area*

The study area has an abundance of wildlife and a diverse range of habitats for this wildlife. This level of abundance and diversity has been supported by the large areas of forested and undeveloped land and the many riparian and wetland habitats that link these larger areas. For a complete description of wildlife habitat, see the DEIS Section 3.1.4.1 Wildlife Habitat.

The No-Build Alternative would not result in additional impacts to wildlife and wildlife habitat (exhibits 3.8 and 3.9).

The build alternatives would impact wildlife through the conversion of wildlife habitat to transportation use and the fragmentation of habitat into habitat blocks of smaller size. The build alternatives would impact 88 to 121 acres of wildlife habitat through conversion to transportation use.

The build alternatives would be controlled-access highways with fencing along the limits of the land to be acquired and used for right-of-way. The build alternatives would impact wildlife through restricting their movement and degrading the habitat adjacent to the proposed rights-of-way of the build alternatives. Fencing along the rights-of-way of the build alternatives would reduce wildlife highway mortality but would not eliminate it.

Undeveloped habitat blocks consist of various habitat types that are home to species less tolerant or intolerant of disturbance and those that would use a mixture of habitats. These areas are larger than 100 acres in size and serve as habitat for animals that require a variety of habitat types during their lifespan. Animal passage and habitat connectivity within an undeveloped habitat block would be impacted by the placement of a build alternative.

The build alternatives would impact wildlife habitat through fragmentation, which is the subdivision of larger continuous tracts of habitat into smaller tracts. Impacts to undeveloped habitat blocks more than 100 acres in size were evaluated. Because an undeveloped habitat block is defined as 500 feet from a public road or development, direct impacts include areas converted to and within 500 feet of transportation use. The Bangor Hydro-Electric Company utility easements were considered as features that fragment habitat but were not buffered by 500 feet because most of the two easements are vegetated with trees, shrubs, and grass that is mowed occasionally.

Impacts are considered minor when the reduction in areas is in a narrow or otherwise lower value portion of undeveloped habitat block. Impacts are considered moderate when the existing undeveloped habitat block is reduced in area but remains larger than 100 acres and is not bisected. Severe impacts occur when the existing undeveloped habitat block is bisected into smaller habitat areas with one or more remnants smaller than 100 acres in size (exhibit 3.9b).

Although the build alternatives were designed to minimize impacts to undeveloped habitat blocks, they would fragment habitat into smaller tracts (exhibits 3.10a, b, and c). The impacts range from minor to severe. The coniferous and mixed forest areas provide some winter thermal cover for wildlife that would be reduced by the build alternatives. The diversity and quality of habitat adjacent to the right-of-way for the build alternatives would be reduced through the traffic operation and maintenance activities.

The build alternatives would have two wildlife passage structures, large enough to pass moose, on both sides of Eaton Brook. The locations were chosen because they are in a remote area with abundant wildlife. The wildlife passage structures would not be located in wetlands to avoid the bottoms from freezing during the winter.

Exhibit 3.9b – *Impacts to Undeveloped Habitat with Utility Easements as Fragmenting Features (acres)*

Alternative	A	F	I	J	M	M1	N	P	P1	Q	Total
	720	349	1,194	316	291	157	115	2,011	626	108,216	
No-Build											
Total impact											
Remnants after impact											
2B-2/the Preferred Alternative											
Total impact		148		316	2		115	62	183	3	829
Remnants after impact		203			289			141 1,808	443	108,213	
5A2B-2											
Total impact	130	69		316	2		115	62	183	3	880
Remnants after impact	590	280			289			141 1,808	443	108,213	
5B2B-2											
Total impact		134	58			47			270	3	512
Remnants after impact		102 116	1,136			110			158 198	108,213	

Exhibit 3.10a – *Impacts to Undeveloped Habitat with Alternative 2B-2/the Preferred Alternative*

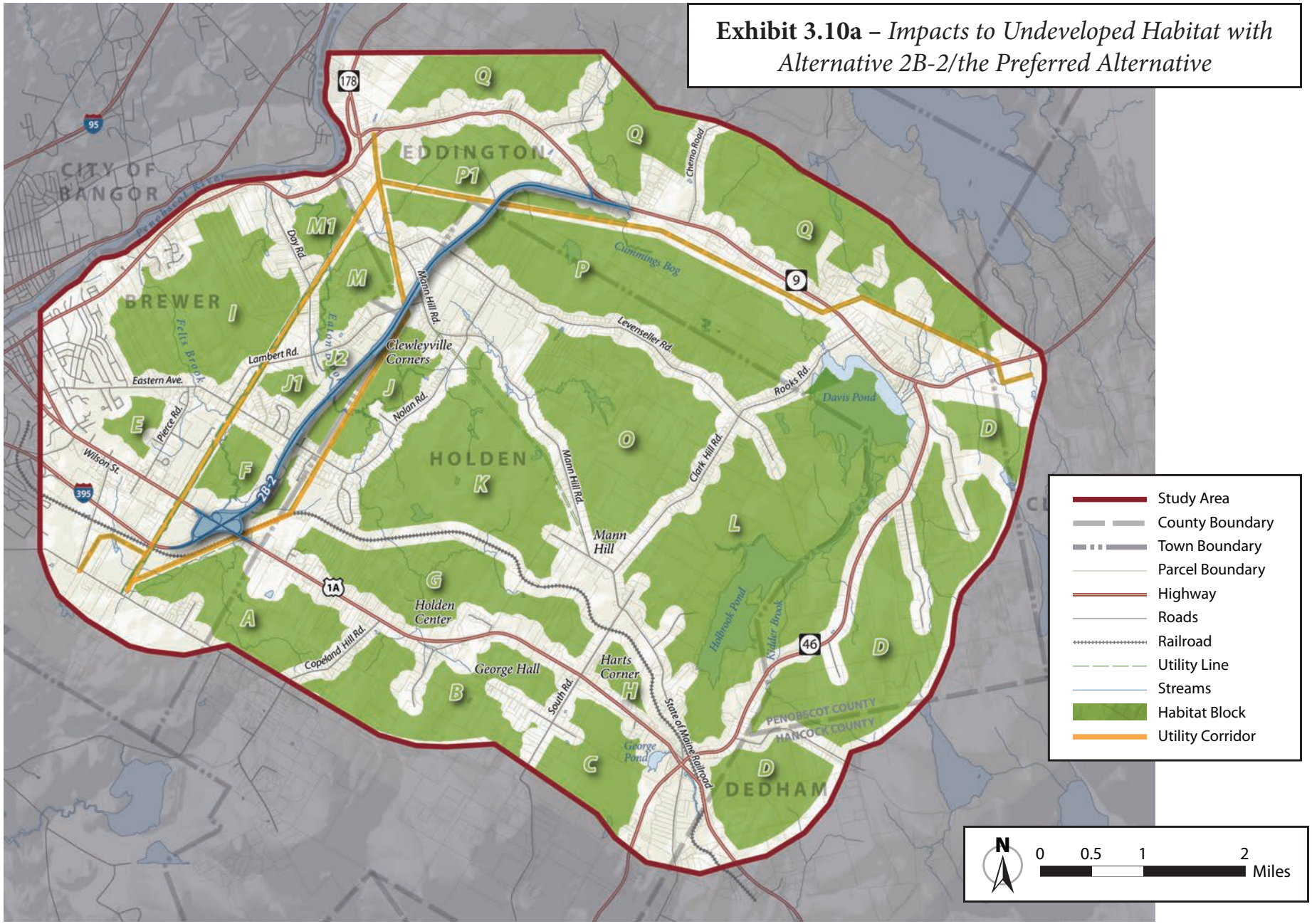


Exhibit 3.10b – *Impacts to Undeveloped Habitat with Alternative 5A2B-2*

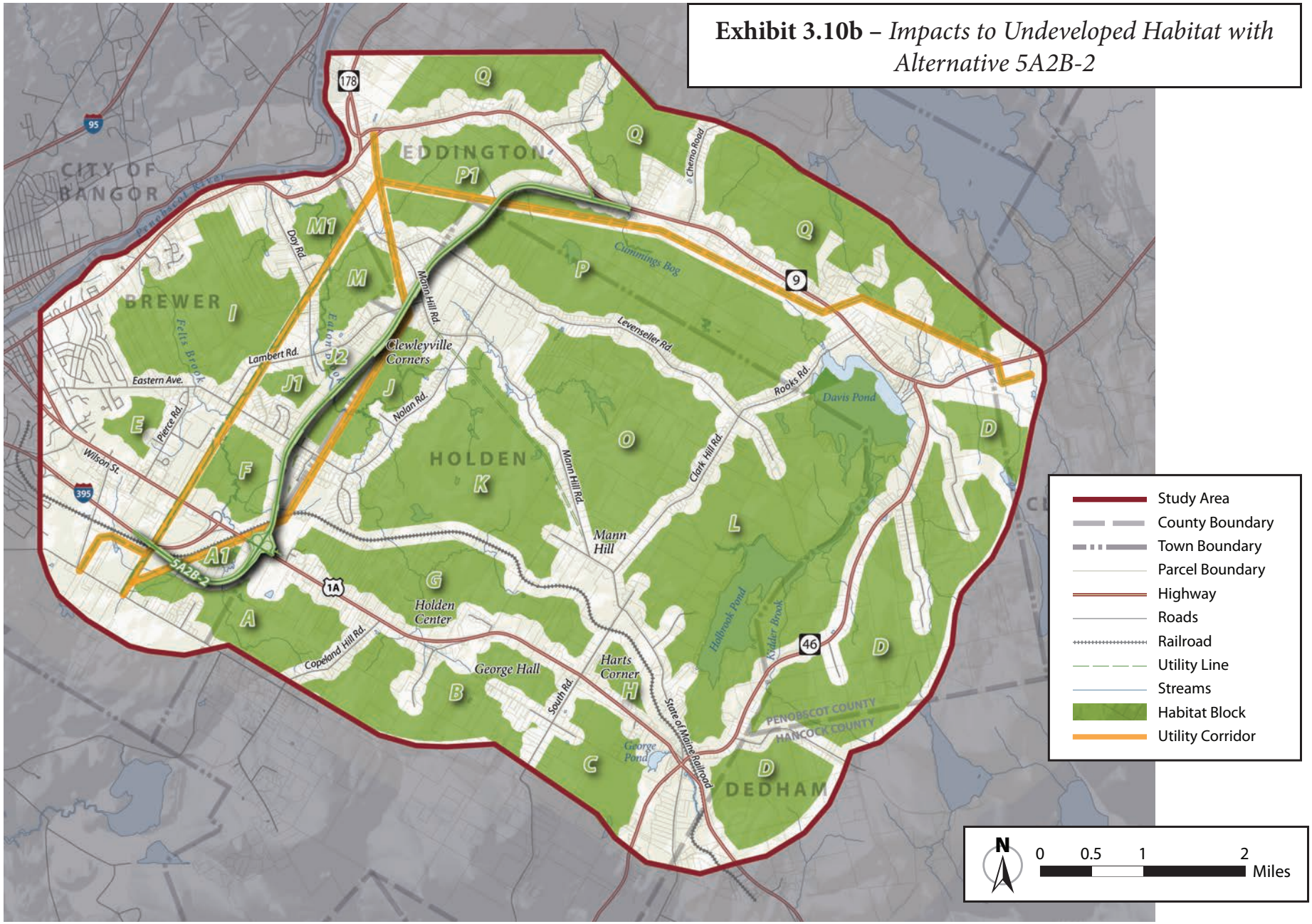


Exhibit 3.10c – *Impacts to Undeveloped Habitat with Alternative 5B2B-2*

3.2.4.2 Regulated Wildlife Habitat and Significant Habitats Protected under the NRPA

The Maine NRPA, administered by the MDEP, provides protection for certain natural resources, including significant wildlife habitats (38 MRSA 480B). Under the NRPA, habitats defined as "significant" and subject to protection include the following:

- habitat for federal- or state-listed endangered or threatened animal species
- high- and moderate-value deer-wintering areas and travel corridors
- critical spawning and nursery areas for Atlantic sea-run salmon, as defined by the Maine Atlantic Salmon Commission (MASC)

The following are further defined in Chapter 335 rules in 06 Code of Maine Rule 96:

- high- and moderate-value waterfowl and wading-bird habitats, including nesting and feeding areas
- shorebird nesting, feeding, and staging areas
- seabird nesting islands
- significant vernal pools

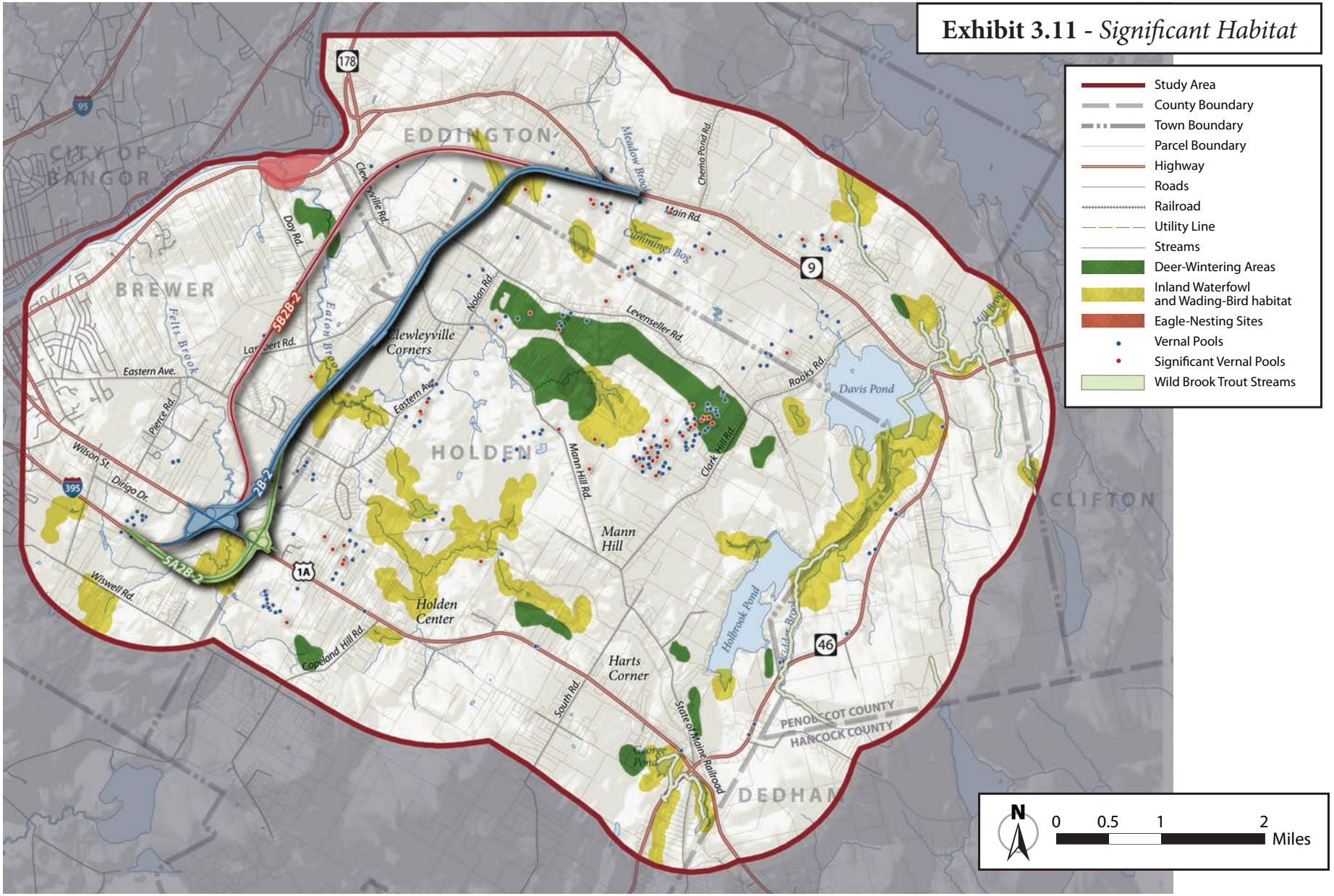
Under the NPRA, the MDIFW is responsible for defining the high- and moderate-value deer-wintering areas; waterfowl and wading-bird habitats; shorebird nesting, feeding, and staging areas; and seabird nesting islands. For a complete description of regulated wildlife habitat and significant habitats, see the DEIS Section 3.1.4.2 Regulated Wildlife Habitat and Significant Habitats Protected under the NRPA.

Deer-wintering areas (DWAs), or deer "yards," are critical to the survival of deer over the winter months. The MDIFW identifies and defines DWAs as stands of mature conifers with a tree height greater than 30 feet and crown closure greater than 60 percent (Beginning with Habitat, 2008). Eleven DWAs totaling 1,051 acres exist in the study area (exhibit 3.11).

The No-Build Alternative, Alternative 2B-2/the Preferred Alternative, and Alternative 5A2B-2 would not impact DWAs. Alternative 5B2B-2 would impact three acres (0.3 percent) of DWAs (exhibit 3.12).

The high- and moderate-value inland waterfowl and wading-bird significant habitat areas are used by waterfowl, members of the family Anatidae including brant, wild ducks, geese, swans, and wading birds such as herons, glossy ibis, bitterns, rails, coots, and common moorhens. Waterfowl use portions of the study area for feeding, breeding, and staging areas; organisms on which they feed use the habitat for food supplies. These habitats are highly productive and are recognized as a valued resource.

Approximately 2,877 acres of IWWH are in the study area: along Felts Brook, Eaton Brook, and the Thoroughfare between Holbrook Pond and Davis Pond (MDIFW, MGIS, 2009). These areas are classified as significant wildlife habitat by the MDIFW.



Note: *Only vernal pools near the corridors for alternatives were identified.*

Note: *Under the NRPA, habitats defined as "significant" and subject to protection include the following: habitat for federal- or state-listed endangered or threatened animal species, high- and moderate-value deer-wintering areas and travel corridors, and critical spawning and nursery areas for Atlantic sea-run salmon, as defined by the Maine Atlantic Salmon Commission (MASC). The following are further defined in Chapter 335 rules in 06 Code of Maine Rule 96: high- and moderate-value waterfowl and wading-bird habitats, including nesting and feeding areas, shorebird nesting, feeding, and staging areas, seabird nesting islands, and significant vernal pools.*

Exhibit 3.12 – *Impacts to State-Regulated Wildlife Habitat*

Alternatives	DWA	IWWH
No-Build		
2B-2/the Preferred Alternative		9 acres (0.3%) along Eaton Brook and its tributaries
5A2B-2		20 acres (0.7%) along Felts Brook near the proposed interchange and 9 acres (0.3%) along Eaton Brook
5B2B-2	3 acres (0.3%) along a tributary to Eaton Brook	3 acres (0.1%) along a tributary to Eaton Brook

The No-Build Alternative would not impact IWWH.

The build alternatives would impact three to 20 acres (0.1 and one percent respectively) of IWWH(exhibit 3.12).

Beginning on September 1, 2007, significant vernal pool habitat is protected by law under the NRPA (section 3.2.2.2.2) (MDEP, 2010).

The No-Build Alternative would not impact vernal pools.

The build alternatives would impact one non-significant vernal pool and its upland dispersal habitat (exhibit 3.5). The build alternatives may impact upland dispersal habitat from vernal pools not within the alignments of a build alternative.

3.2.5 Endangered and Threatened Species

There are species and critical habitat in the state that receive federal and state protection to help repair previous damage to populations and attempt to return a species population to self-sustaining levels.

Other species receive state protection if the limits of their distribution ranges are in Maine or if populations can exist only in a specific but uncommon habitat in Maine.

The Federal ESA, as amended (16 USC 1531 et seq.), provides protection for those species that are listed as endangered or threatened under the ESA. Section 7 of the ESA requires that the USFWS and/or the NMFS work with the federal action agencies to achieve conservation and recovery of listed species. "Critical habitat" is a term defined and used in the ESA to designate a specific geographic area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but would be needed for its recovery.

According to the Maine Natural Areas Program, there are no rare botanical features that would be disturbed within the study area (MNAP, 2012).

3.2.5.1 Federal Endangered and Threatened Species

According to the NMFS, there are three species of diadromous fish in the study area listed under the ESA.

These species are the Atlantic sturgeon, which is listed as a threatened species, the shortnose sturgeon, which is listed as an endangered species, and the Atlantic salmon, which is listed as an endangered species with designated critical habitat in the study area (NOAA, NMFS 2012).

In accordance with the January 2014 Section 7 Programmatic Agreement between FHWA, USACE, MaineDOT, USFWS and NMFS, MaineDOT determined that while the federally threatened Atlantic sturgeon and federally endangered shortnose sturgeon are known to occur within the study area, they are not present within the action area and therefore, determined the proposed action would not have an effect on these species. Also in accordance with the Section 7 Programmatic Agreement, MaineDOT determined that Atlantic salmon and its designated critical habitat were present within the study area and the action area and therefore, would require consultation with the USFWS.

According to the USFWS, the Canada lynx and its designated critical habitat is not considered to be present in the study area (U.S. Fish and Wildlife Service, …, January, 2014).

According to the USFWS, the northern long eared bat (NLEB) was proposed for listing under the ESA on October 2, 2013 (Federal Register Vol. 78, No. 191, pages 61046-61080). Critical habitat for the NLEB is not currently designated. Due to the recent proposed listing, MaineDOT, on behalf of the FHWA, is conferencing with the USFWS. Other than the NLEB interim conference and planning guidance (USFWS, 2014), the USFWS has not developed guidance regarding avoidance and minimization measures and are currently developing known life history data gaps in Maine. The NLEB is dependent on forests, using trees as summer and maternity roosts (Federal Register Vol. 78, No. 191, pages 61046-61080). Specific NLEB summer and maternity roost location information is unavailable for Maine, but USFWS asserts that NLEB roosts occur throughout the entire state and, therefore, could be present in the study area. Only three winter hibernacula (a place in which an animal seeks refuge) are known for NLEB in Maine. These hibernacula occur in northern and western Maine.

The Rufa red knot was proposed for listing as a threatened species by the USFWS on September 30, 2013. It is a medium-sized shorebird belonging to the sandpiper group that spends much of its life in migration between its breeding and wintering grounds. During the spring and fall migrations, red knots use staging and stopover areas to rest and feed, including areas along the Maine coast. Currently, no mapping of the Rufa red knot in Maine exists. The MDIFW monitors the species (U.S. Fish and Wildlife Service, …, January, 2014).

The No-Build Alternative would not impact known federal, listed or proposed threatened species.

The build alternatives are in the geographic range of the Gulf of Maine Distinct Population Segment (GOM DPS) of endangered Atlantic salmon and designated critical habitat for the Atlantic salmon. The Penobscot River, located on the western boundary in the study area, is in the known range of Atlantic sturgeon and shortnose sturgeon. Because the build alternatives would not directly or indirectly impact the Penobscot River, all of the build alternatives, including 2B-2/the Preferred Alternative, would have no effect on the Atlantic sturgeon and the shortnose sturgeon.

The build alternatives may affect Atlantic salmon and its designated critical habitat through the construction of road-stream crossing and channelization of streams. The road-stream crossings may affect Atlantic salmon during their juvenile stage (section 3.2.2.2.1). The proposed crossings would span the streams at a width that is 1.2 times the bankful width (i.e., 20 percent larger than a full stream) and use either a bottomless structure or a four-sided structure with stream simulation design and natural substrate installed. The substrate inside of the structure would emulate the preexisting substrate of the surrounding stream and banks would mimic terrestrial passage characteristics.

Stream crossings would be designed in accordance with MaineDOT's Waterway and Wildlife Crossing Policy and Design Guide (MaineDOT, 2008e). An open work window with restrictions for in-stream work would be used to construct the project. If construction must take place outside of the July 15-October 1 work window, fish passage would be maintained through the use of a bypass channel. During final design, MaineDOT would analyze opportunities to further minimize impacts to designated critical habitat by considering minor shifts in the alignment of Alternative 2B-2/the Preferred Alternative. An increase in the potential for sediment loading and roadway contaminants introduced to surface waters (including those that contain Atlantic salmon) exists for the build alternatives. Impacts from sedimentation caused by construction would be temporary. During final design, a highway drainage system would be designed to minimize the transport of sediments and other particulates to surface waters. Erosion and sedimentation control measures would be incorporated into the design and implemented during construction in accordance with Section II of MaineDOT's *Best Management Practices Manual for Erosion and Sedimentation Control* and designed in accordance with the MDEP/ MaineDOT Memorandum of Agreement, Stormwater Management, November 14, 2007 and Chapter 500 Rules. Redundancy of controls would be

included in each watershed that would be impacted to minimize potential control failures that could deliver sediment laden runoff to streams. The build alternatives would not impact other known federal, listed or proposed, endangered and threatened species.

MaineDOT prepared a Biological Assessment (BA) for the FHWA for the proposed action in compliance with Section 7 of the ESA. FHWA formally consulted with the USFWS under Section 7 of the ESA for effects of eight proposed crossings of perennial and intermittent streams for Alternative 2B-2/the Preferred Alternative on Atlantic salmon, Atlantic salmon designated critical habitat and the NLEB. One of these crossings is approximately 2,000 feet upstream of a historically inaccessible natural barrier and would have no permanent or temporary effects on Atlantic salmon or Atlantic salmon designated critical habitat. The scope of the BA is based on field measured and U.S. Geological Survey (USGS) regression analysis to determine bankful widths. In addition, because final design for Alternative 2B-2/Preferred Alternative has not started, final plans, sizes, and types of crossing structures have not been determined (MaineDOT, 2013a).

The BA concluded that because the Penobscot River would not be affected directly or indirectly by the build alternatives, there would be no effect on Atlantic sturgeon and shortnose sturgeon (exhibit 3.13). However, the build alternatives may affect, and are likely to adversely affect, Atlantic salmon because (exhibit 3.14):

- Installation of cofferdams would have the potential to 'take' a species in the area of the project.
- Upstream and downstream passage could be blocked during construction of the crossing structures.

Exhibit 3.13 – *Overall Effect Determination for Each Affected Species and Critical Habitat*

Jurisdiction	*Federal Status*	*Common Name*	*Effect determination for Stormwater Runoff*	*Effect determination for in water work*	*Effect determination for pile driving*	*Effect determination for clearing and grading*	*Overall effect determination for project*
USFWS	Endangered	Atlantic salmon	Not likely to adversely affect	Likely to adversely affect	Not likely to adversely affect	Not likely to adversely affect	Likely to adversely affect
USFWS	Endangered	Atlantic salmon Critical Habitat	Not likely to adversely affect	Likely to adversely affect (temporary)	Not likely to adversely affect	Not likely to adversely affect	Likely to adversely affect
NMFS	Endangered	shortnose sturgeon	No effect	No effect	No effect	No effect	No effect
NMFS	Threatened	Atlantic sturgeon	No effect	No effect	No effect	No effect	No effect

Exhibit 3.14 – *Summary of Effect Determination of Activities Affecting Atlantic Salmon*

Stages	Activity Category	Minimization Measure	Presence/ Exposure listed species	Chemical and physical changes	Biological response	Effect Determination
Construction	Cofferdam installation	Complete evacuation	Yes	None	Yes, temporary displacement	Likely to adversely affect
Construction	Cofferdam/ Bypass channel	Passage will be maintained if work is completed outside of July 15-October 1	Yes	None	No	Not likely to adversely affect
Construction	Pile Driving	Use of Vibratory hammer	Yes	None	Yes, temporary displacement	Likely to adversely affect
Post Construction	Vegetation Removal	Amount Minimized	No	Potential impact on water quality	No	Not likely to adversely affect

The BA concludes that the proposed project would not jeopardize the continued existence of the NLEB for the following reasons:

- The amount of forested clearing represents a very small fraction of forest available to NLEB
- The proposed project is not located near known hibernacula
- The type of project proposed is not one identified by USFWS as being most likely to result in lethal impacts or significant adverse effects to NLEB.

MaineDOT and FHWA are required to and would re-initiate Section 7 consultation with the USFWS when the NLEB and/or its critical habitat become officially listed under the ESA.

The Federal ESA requires that all Federal agencies consult with the USFWS and/or NMFS to determine if actions of an agency would have any effect on species listed under the ESA and to avoid any actions that may jeopardize the continued existence of the species or result in the destruction or adverse modification of designated critical habitat. The formal consultation process is concluded when USFWS issues a biological opinion (BO) that makes a determination of effect that includes terms and conditions of approval, a statement for potential incidental 'take' of the species, and conservation recommendations.

3.2.5.2 USFWS Biological Opinion

New information regarding the NLEB will be available and published in the Federal Register in April 2015 requiring further ESA section 7 consultation for potential effects to the NLEB as a result of the proposed

action, not previously addressed in the BA or the USFWS's BO.

In the BO issued on September 19, 2014 the USFWS concluded that the I-395/Route 9 connector would not jeopardize the continued existence of the NLEB due primarily to the minimal amount of potentially suitable habitat that would be permanently impacted relative to the total habitat area available range-wide (USFWS, 2014).

After considering the current status of Atlantic salmon and its designated critical habitat, the project's environmental baseline, the effects of the proposed action, and the potential for future cumulative effects in the study area, the USFWS concluded the I-395/Route 9 connector is not likely to jeopardize the continued existence of the Atlantic salmon throughout all or a significant portion of its range. Furthermore, the proposed action is not expected to result in the destruction or adverse modification of critical habitat (USFWS, 2014).

The I-395/Route 9 connector would result in short-term adverse effects to Atlantic salmon and its critical habitat during construction activities. These effects are small in spatial and temporal scope and in some cases would be reversed upon completion of construction. Construction activities are authorized to take up to 40 juvenile Atlantic salmon and no adult Atlantic salmon. Many of the construction-related adverse effects to Atlantic salmon are not expected to result in mortality, but rather temporarily affect normal behavior through capture and relocation to another part of the stream or blocked access to upstream or downstream habitat that results in temporary disruption of normal activities, such as feeding (USFWS, 2014).

The USFWS concluded that critical habitat, including the habitat upstream of the I-395/Route 9 connector on Felts and Eaton Brooks and their tributaries, would function as suitable and unimpaired after construction is complete and these streams would continue to serve a conservation and recovery role for Atlantic salmon. All life stages should be able to move through the new stream crossing structures and the structures would maintain natural stream channels, given that these structures would be wider than the stream's bankful width and that the properly-sized structure should support a natural stream substrate. Additionally, during the operation and maintenance phase of the I-395/Route 9 connector, stormwater management from new impervious surface areas would be treated in a manner that does not produce adverse thermal effects to critical habitat streams (USFWS, 2014).

To be exempt from the prohibitions of section 9 of the ESA, FHWA, MaineDOT, and all contractors must comply with the following terms and conditions:

1. New impervious surface and discharged stormwater runoff quantity and quality must be treated using best management practices that incorporate

water infiltration and/or filtration, avoiding direct water discharge into designated Atlantic salmon critical habitat or any surface waterway that subsequently directly discharges into critical habitat, raising stream temperatures above pre-construction conditions.

2. All applicable conservation measures described in the BO will be fully implemented.
3. Monitoring of best management practices implementation will be conducted to evaluate compliance throughout the construction period. An annual report will be submitted to the USFWSs' Maine Field Office each December for the previous November through October construction period.
4. Site preparation, including cofferdam installation and removal, and temporary access road establishment, will not cause sedimentation and adverse levels of turbid water discharge into streams following erosion and sedimentation control requirements in MaineDOT's' *Best Management Practices for Erosion and Sedimentation Control* document.
5. Migration/movement barrier/delay due to cofferdam placement will be minimized by limiting cofferdam placement to the time necessary to complete instream activities. The cofferdams will be removed within two days of the completion of instream construction.
6. Instream construction will occur during the low flow period (July 15 to October 1). If MaineDOT determines that any instream construction activity cannot be completed prior to October 1, a bypass channel will be constructed to avoid affecting Atlantic salmon movement in Felts and Eaton Brooks. All bypass channels will be constructed and operating by October 2 to avoid consultation reinitiation.
7. Hydroacoustic impacts from sheet pile installation (if applicable) will not adversely affect Atlantic salmon. MaineDOT will manage noise producing activities to within noise thresholds described in the BO. Hydroacoustic monitoring will be conducted as described and reports will be submitted to the USFWS two weeks after completing each pile driving activity, including cofferdam completion or installed bridge piles for each bridge.
8. Disturbance and construction association with crossing structure placement will not adversely affect Atlantic salmon due to instream construction activities occurring within a cofferdam.
9. Underwater acoustic monitoring will be conducted to track noise levels associated with any sheet pile installation. Acoustic monitoring will be required wherever instream pile driving activities occur in Atlantic salmon critical habitat. A single hydrophone will be placed at 10 meters upstream and downstream of noise producing

activity. MaineDOT will continually monitor noise levels to assure activities that may approach the published threshold values for potentially injuring juvenile salmonid will receive noise attenuation measures immediately, assuring the threshold values are not reached. MaineDOT will provide monitoring reports to the USFWS after the completion of each cofferdam installation or immediately after completion of similar activities.

10. All Atlantic salmon mortalities from electrofishing or other related activities will be reported to the USFWS (Thomas Davidowicz at 207/866-3344, Extension 152; Fax 207/866-335 1) within 48 hours of occurrence. Any dead Atlantic salmon will be immediately preserved (refrigerate or freeze) for delivery to the USFWSs' office in Orono, Maine. If the USFWS is not available, contact the NMFS in Orono, Maine (Dan Tierney; 207/866-3755) to arrange for delivery. Upon completion of each fish evacuation event, MaineDOT will report the total Atlantic salmon mortality level, if any, for that event. An event is defined as any single attempt to evacuate all fish from a single cofferdam. An event is complete when the cofferdam is dewatered and construction activities may begin.
11. Adverse effects to Atlantic salmon's ability to migrate, forage, shelter, and spawn are not expected as road-stream crossing structures in critical habitat will be designed to span perennial streams using a minimal structure horizontal clearance that is 1.2 times each streams' bankful width.
12. To address potential effects to listed species and critical habitat resulting from fill material acquisition outside the roadway corridor and terminal interchange buffers, MaineDOT will include language in the construction contract, via a Special Provision, which states the contractor will avoid all potential effects to listed species and critical habitat when obtaining fill material needed for construction. The USFWS will receive a copy of the Special Provision for review prior to finalization of the Plans, Specifications and Estimate package. This condition is required because the USFWS's BO and the Incidental Take Statement do not evaluate nor authorize any adverse effects or take associated with fill material acquisition outside the roadway corridor buffer and terminal interchange buffers portion of the action area. If avoidance cannot be achieved, FHWA should reinitiate consultation or the contractor would have to apply for an ESA section 10 permit to acquire an incidental take permit, a

time-consuming process that would likely affect the construction schedule.

13. In accordance with Chapter 500 of the Maine Stormwater Law under the Natural Resources Protection Act, MaineDOT and FHWA, for those sections of the proposed alignment that discharge into streams, MaineDOT will design stormwater management systems that provides the greatest thermal buffering (USFWS, 2014).

3.3 Atmospheric Environment

3.3.1 Air Quality

The study area is in a portion of Penobscot County that is classified by the U. S. Environmental Protection Agency (USEPA) as an Attainment Area for ozone, pursuant to the CAA amendments of 1990 (USEPA, 2008).

Vehicles emit primarily carbon monoxide (CO), hydrocarbons (also known as volatile organic compounds, or VOCs), oxides of nitrogen (NOx), and, to a much lesser extent, respirable particulate matter (PM10) and (PM2.5), sulfur dioxide (SO_2), and lead (Pb). To determine compliance with the National Ambient Air Quality Standards (NAAQS), the MDEP Bureau of Air Quality Control conducts long-term air-quality monitoring. The MDEP operates several continuous monitoring sites that measure ambient concentrations of criteria pollutants. For a complete description of air quality, see DEIS Section 3.2.2 Air Quality.

In accordance with FHWA TA6640.8A, Chapter V, Section G.8 (b), the air-quality analysis consists of two components: (1) a qualitative evaluation of the impact of the build alternatives on regional emissions (i.e., a mesoscale assessment); and (2) a qualitative assessment of potential changes in CO concentrations (i.e., a microscale assessment).

3.3.1.1 Mesoscale Assessment

The No-Build Alternative would not worsen air quality in the near future. Over time, air quality would worsen as congestion increases on Routes 1A, 9, and 46.

The build alternatives would result in a reduction in vehicle idling time because the new highway would remove traffic congestion from Routes 1A and 46. The build alternatives would result in emission reductions compared to the No-Build Alternative, thereby providing an air-quality benefit.

3.3.1.2 Microscale Assessment

The potential impacts of the build alternatives on CO concentrations were assessed. The USEPA conformity regulations at 40 CFR 93.116 require that a project neither create or contribute to a new violation of the NAAQS nor worsen existing violations of the NAAQS.

Under the No-Build Alternative, growth in traffic due to normal population growth would result in increased vehicle emissions. The growth in traffic would be offset somewhat by a decrease in motor-vehicle emission factors as older and more polluting vehicles in the nation's fleet are replaced with new vehicles that have lower emission rates.

The build alternatives would introduce traffic into an area where there is comparatively little traffic, causing a slight increase in CO concentrations. However, this would be offset somewhat by an increase in travel speeds with the build alternatives and is not anticipated to lead to violations of the CO standards.

With the build alternatives, traffic would be routed away from Route 1A and traffic idling time would decrease. Therefore, CO concentrations would be reduced from their future No-Build Alternative levels, and violations of the 1-hour and 8-hour CO standards are not anticipated.

3.3.1.3 Mobile Source Air Toxics Analysis

In addition to the criteria air pollutants for which there are NAAQS, the USEPA regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners), and stationary sources (e.g., factories or refineries).

Mobile source air toxics (MSATs) are a subset of the 188 air toxics defined by the CAA. The MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned.

Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics result from engine wear or impurities in oil or gasoline.

In March 2001, the USEPA issued the Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17229, March 29, 2001). This rule was issued under the authority in Section 202 of the CAA. In its rule, the USEPA examined the impacts of existing and newly promulgated mobile source control programs. Based on FHWA projections for 2000 to 2020, these programs would reduce on-highway emissions of four MSATs — benzene, formaldehyde, 1,3-butadiene, and acetaldehyde — by 57 to 65 percent and would reduce on-highway diesel PM emissions by 87 percent. These reductions would occur despite projections that the overall nationwide vehicle miles travelled (VMT) would increase by 64 percent during that timeframe. As a result, the USEPA concluded that no further motor-vehicle emissions standards or fuel standards were necessary to further control MSATs. The USEPA is

preparing another rule under authority of CAA Section 202(l) that would address these issues and could make adjustments to the full 21 and the primary 6 MSATs.

This FEIS includes a basic analysis of the likely MSAT emission impacts of these alternatives because the analysis of MSATs is an emerging science — that is, the available technical tools are not sufficient to predict the study-specific health impacts of the emission changes associated with the build alternatives. Evaluating the environmental and health impacts from MSATs on a proposed highway would involve several key elements: emissions modeling; dispersion modeling to estimate ambient concentrations resulting from the estimated emissions; exposure modeling to estimate human exposure to the estimated concentrations; and the final determination of health impacts based on the estimated exposure. Each step is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this study. Because of the uncertainties, a quantitative assessment of the effects of air toxic emissions impacts on human health cannot be made at the study level.

The amount of MSAT emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the build alternatives is slightly higher than the No-Build Alternative because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. The increase in VMT would lead to higher MSAT emissions for the preferred action alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to the USEPA's MOBILE6.2 model (USEPA, 2011b), emissions of all of the priority MSAT except for diesel PM decrease as speed increases. The extent to which these speed-related emission decreases would offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

Because the estimated VMT under each of the alternatives is nearly the same, it is expected that there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions would likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by 72 percent between 1999 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the USEPA projected reductions

is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The build alternatives traffic volume is less than 10,000 vehicles per day and the vehicle speed would increase for the No-Build Alternative. The vehicle mix would not change. Vehicle emissions would decrease for the build alternatives compared to the No-Build Alternative. With an overall decrease in vehicle emissions, the build alternatives would see decrease in MSAT emissions.

3.3.1.4 PM2.5 Hot-Spot Screening Analysis

The analysis consists of answering questions in the process, progressing through Levels 1-3 screening. Each level evaluates study-specific information to determine if the next level of screening is required or if the study qualifies or is disqualified from Hot-Spot Analysis. The study was disqualified from a Hot-Spot Analysis in Level 2 of the screening process because the maximum predicted total traffic volume is fewer than 10,000 vehicles per day. It was determined that the build alternatives would not result in an air-quality impact and that the study meets the CAA's requirements without further PM Hot-Spot Analysis.

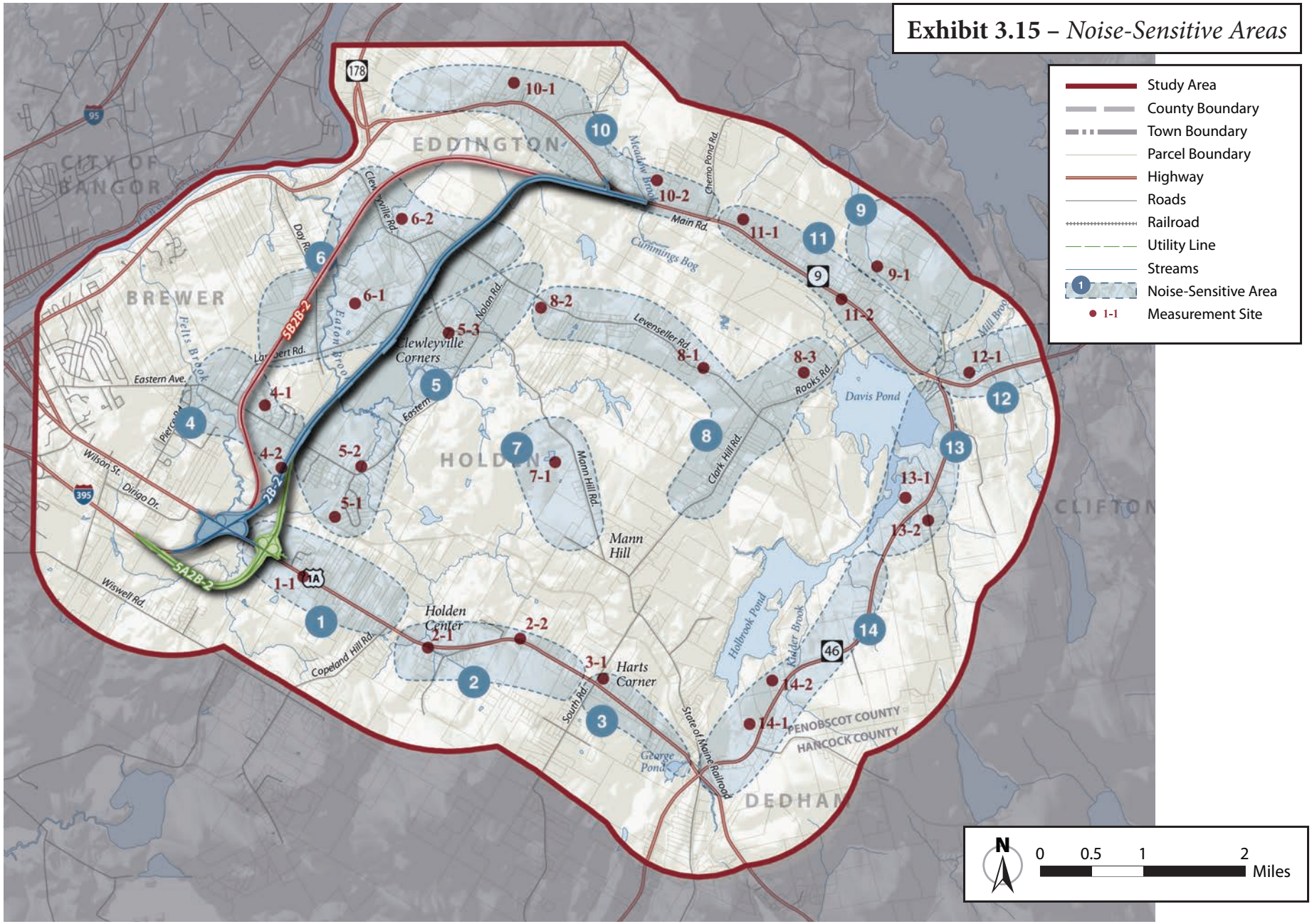
3.3.2 Noise

Fourteen general noise-sensitive areas (NSAs), each encompassing many individual receptors, were identified in the study area (exhibit 3.15).

Noise measurements were conducted to determine ambient (i.e., background) noise levels and to validate the FHWA Traffic Noise Model (TNM) at sites influenced by traffic-generated noise. Measurements were taken in accordance with FHWA Report Number FHWA-PD-96-046, Measurement of Highway Related Noise (FHWA, 1996). Noise levels are A-weighted hourly equivalent noise levels in decibels (Leq (h) dBA). The hourly Leq, or equivalent sound level, is the level of constant sound that in an hour would contain the same acoustic energy as the time-varying sound (i.e., the fluctuating sound levels of traffic noise are represented in terms of a steady-state noise level of the same energy content). A-weighting simulates the response of the human ear to noise. For sites affected by highway traffic, concurrent counts of automobiles and medium-weight trucks, and heavy trucks were recorded and speed observations were made for model validation purposes.

Measured noise levels varied considerably in the study area depending on the proximity of sensitive receptors to major roadways. Overall, short-term measurements ranged from 39 to 71 dBA. Along Routes 1A, 9, and 46, traffic was the major source of ambient

Exhibit 3.15 – *Noise-Sensitive Areas*



noise. Noise levels measured at receptors along these roads ranged from 58 to 71 dBA. Along lightly traveled secondary roads, such as Mann Hill Road, Levenseller Road, and Rooks Road, noise levels ranged from 43 to 55 dBA. In the absence of traffic noise from the secondary roads, distant traffic from major roadways could be heard. Background noise levels in remote locations not influenced by highway traffic ranged from 39 to 46 dBA. In these remote locations, noise from distant roadways was occasionally audible.

Noise evaluation of the No-Build Alternative and build alternatives was conducted based on MaineDOT noise policy.

The Noise Abatement Criteria (NAC) for specific land-use activities were used in the evaluation of traffic-noise impacts. These criteria are based on those in Title 23 Code of Federal Regulations, Part 772; U.S. Department of Transportation; the FHWA, Procedures for Abatement of Highway Traffic Noise and Construction Noise, and guidelines for "increase over existing" (IOE) noise levels as set forth in MaineDOT publication "Highway Traffic Noise Policy". Predicted noise levels were determined using Version 2.5 of the FHWA TNM.

The FHWA and MaineDOT define noise impact based on seven categories of land use. The study area consists of a variety of residential, institutional, commercial, and industrial land uses, the noise analyses considered all Activity Category areas. Individual sites within a given activity category are designated as noise-sensitive receivers.

The noise-level descriptor is the hourly equivalent sound level (Leq(h)). Leq(h) is the steady-state, A-weighted sound level, which contains the same amount of acoustic energy as the actual time-varying A-weighted sound level over a one-hour period.

Exterior receivers evaluated are categorized as Activity Categories B and C, with an applicable noise level of 66 dBA defining an impact. Noise impact is evaluated by comparing the predicted noise levels with existing noise levels. Where the future (year 2035) noise levels are predicted to equal or exceed 66 dBA or where the No-Build Alternative and the build alternatives are predicted to cause a substantial noise increase (i.e., >15 dBA) in the future as compared to existing noise levels, NAC must be considered.

The noise analyses are based on the conceptual design of the build alternatives. As Alternative 2B-2/the Preferred Alternative is developed, details related to the alignment, profile, cross section, drainage features, right-of-way requirements, and structures are refined, resulting in the final configuration of any noise abatement features determined to be feasible and reasonable.

The model used to predict worst-case existing and future noise levels and to evaluate noise-abatement options was the FHWA's TNM, Version 2.5. The FHWA TNM predicts noise levels at selected locations based

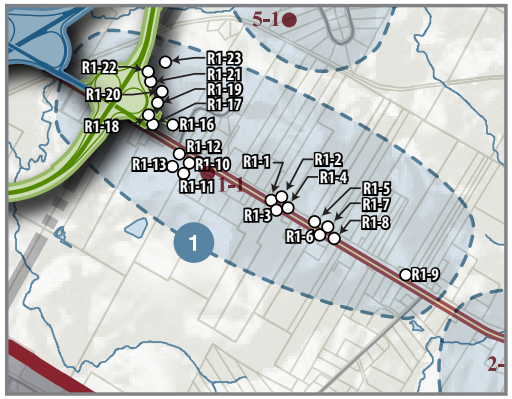
on traffic data, roadway design, topographic features, and the relationship of the analysis site to the roadway.

The noise levels for receivers for the future year were compared to the absolute NAC levels and to increases over existing-year noise levels using MaineDOT's NAC to determine noise impacts (exhibit 3.16). An activity meeting either of these criteria is designated as meeting the warrants for consideration of noise abatement.

Increases in noise for the future No-Build Alternative as compared to existing conditions are the result of normal traffic growth projected to occur between the present and 2035 and range from 0 to 2 dBA.

Compared to existing noise levels, predicted changes in noise levels resulting from the build alternatives result in either an increase or a decrease of sound levels. These changes reflect traffic growth between the

Exhibit 3.16 – *Summary of Predicted Noise Levels*

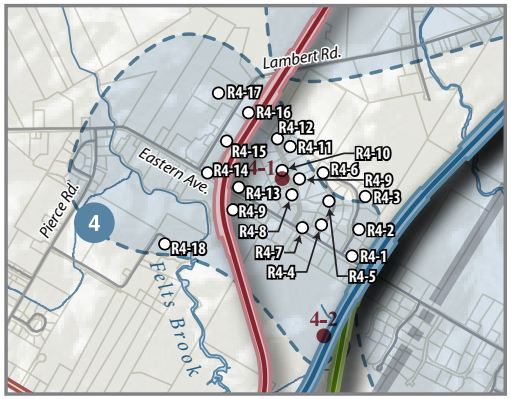


Site	Existing	No-Build		2B-2/the Preferred Alternative		5A2B-2		5B2B-2	
	Leq	Leq	IOE	Leq	IOE	Leq	IOE	Leq	IOE
Predicted Noise Levels Leq (dBA) NSA 1									
R1-16	56	58	2			56	0		
R1-17	65	67	2			62	-3		
R1-18	61	63	2			60	-1		
R1-19	53	56	2			56	3		
R1-20	50	52	2			53	3		
R1-21	49	51	2			60	11		
R1-22	48	50	2			62	15		
R1-23	45	47	2			55	10		

Notes:

Values calculated to tenth of a dBA and then rounded for presentation purposes.
Leq(h) = Hourly equivalent noise level
dBA = Decibels on the A-weighted scale
IOE = Increase over existing
= Impacts based on noise level of 66 dBA or greater; values > 66 dBA shown for existing conditions and No-Build Alternative for informational purposes.
= Impact based on noise level exceeding existing level by 15 dBA or more.

Exhibit 3.16 – *Summary of Predicted Noise Levels (continued)*

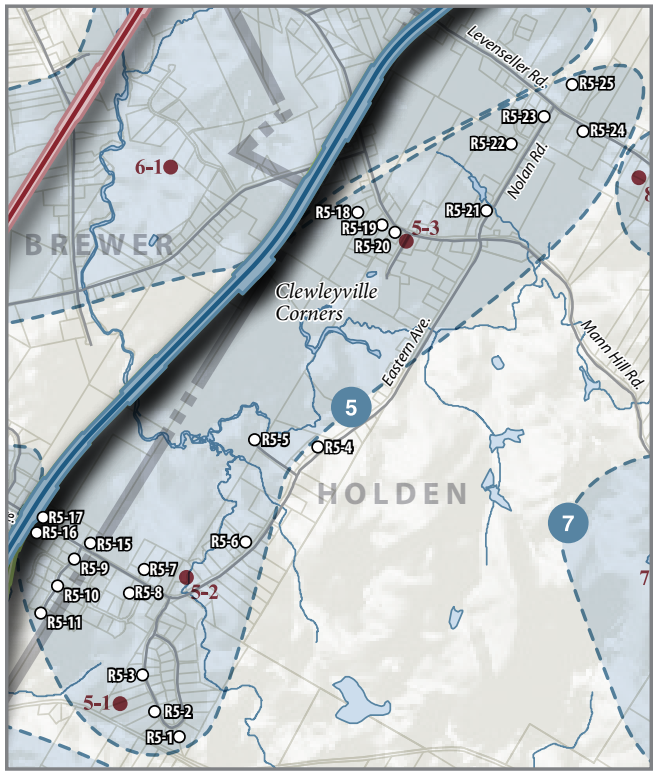


Site	Existing	No-Build		2B-2/the Preferred Alternative		5A2B-2		5B2B-2	
	Leq	Leq	IOE	Leq	IOE	Leq	IOE	Leq	IOE
Predicted Noise Levels Leq (dBA) NSA 4									
R4-1	42	43	1	57	15	57	15		
R4-2	37	39	2	55	18	55	18		
R4-3	34	36	2	51	17	51	17		
R4-4	38	39	1	48	10	48	10		
R4-5	36	38	2	46	10	46	10		
R4-6	35	37	2	44	8	44	8		
R4-7	46	47	1	49	3	49	3		
R4-8	35	37	2					48	13
R4-9	34	36	2					47	13
R4-10	34	36	2					50	16
R4-11	34	36	2					51	17
R4-12	33	35	2					54	20
R4-13	42	43	1					57	15
R4-14	47	48	1					58	12
R4-15	38	39	2					62	25
R4-16	36	38	2					68	32
R4-17	34	36	2					56	22
R4-18	34	36	2					47	13
R4-19	41	42	1					58	17

Notes:

Values calculated to tenth of a dBA and then rounded for presentation purposes.
Leq(h) = Hourly equivalent noise level
dBA = Decibels on the A-weighted scale
IOE = Increase over existing
= Impacts based on noise level of 66 dBA or greater; values > 66 dBA shown for existing conditions and No-Build Alternative for informational purposes.
= Impact based on noise level exceeding existing level by 15 dBA or more.

Exhibit 3.16 – *Summary of Predicted Noise Levels (continued)*

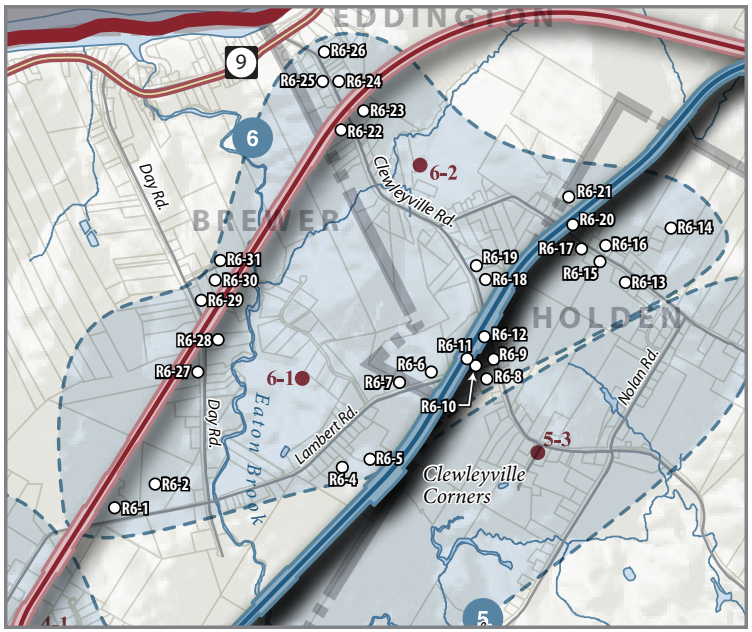


Site	Existing	No-Build		2B-2/the Preferred Alternative		5A2B-2		5B2B-2	
	Leq	Leq	IOE	Leq	IOE	Leq	IOE	Leq	IOE
Predicted Noise Levels Leq (dBA) NSA 5									
R5-16	45	46	1	58	14	58	14		
R5-17	44	45	1	59	16	59	16		

Notes:

Values calculated to tenth of a dBA and then rounded for presentation purposes.
Leq(h) = Hourly equivalent noise level
dBA = Decibels on the A-weighted scale
IOE = Increase over existing
= Impacts based on noise level of 66 dBA or greater; values > 66 dBA shown for existing conditions and No-Build Alternative for informational purposes.
= Impact based on noise level exceeding existing level by 15 dBA or more.

Exhibit 3.16 – *Summary of Predicted Noise Levels (continued)*



Site	Existing	No-Build		2B-2/the Preferred Alternative		5A2B-2		5B2B-2	
	Leq	Leq	IOE	Leq	IOE	Leq	IOE	Leq	IOE
Predicted Noise Levels Leq (dBA) NSA 6									
R6-1	33	36	2					54	21
R6-2	32	34	2					49	17
R6-4	33	35	2	53	20	53	20		
R6-5	32	34	2	58	27	58	27		
R6-6	35	37	2	58	24	58	24		
R6-7	35	37	2	51	17	51	17		
R6-8	39	41	2	54	15	54	15		
R6-9	45	47	2	56	10	56	10		
R6-10	42	44	2	58	16	58	16		
R6-11	34	36	2	66	32	66	32		
R6-12	43	45	2	61	18	61	18		
R6-13	41	42	2	45	5	45	5		
R6-14	33	35	2	45	11	45	11		
R6-15	45	47	2	50	5	50	5		
R6-16	41	43	2	50	9	50	9		
R6-17	48	49	2	53	6	53	6		
R6-18	38	40	2	60	22	60	22		
R6-19	41	43	2	55	14	55	14		
R6-20	42	44	2	61	20	61	20		
R6-21	34	36	2	64	30	64	30		
R6-22	39	41	2					59	20
R6-23	35	37	2					57	22
R6-24	42	43	2					59	18

Notes:

Values calculated to tenth of a dBA and then rounded for presentation purposes.
Leq(h) = Hourly equivalent noise level
dBA = Decibels on the A-weighted scale
IOE = Increase over existing

= Impacts based on noise level of 66 dBA or greater; values > 66 dBA shown for existing conditions and No-Build Alternative for informational purposes.

= Impact based on noise level exceeding existing level by 15 dBA or more.

Exhibit 3.16 – *Summary of Predicted Noise Levels (continued)*

	Site	Existing	No-Build		2B-2/the Preferred Alternative		5A2B-2		5B2B-2	
		Leq	Leq	IOE	Leq	IOE	Leq	IOE	Leq	IOE
	R6-25	44	46	2					56	12
	R6-26	40	42	2					50	10
	R6-27	30	33	2					56	26
	R6-28	30	32	2					55	26
	R6-29	29	32	2					63	34
	R6-30	29	32	2					64	34
	R6-31	29	32	2					60	31

Notes:

Values calculated to tenth of a dBA and then rounded for presentation purposes.

Leq(h) = Hourly equivalent noise level

dBA = Decibels on the A-weighted scale

IOE = Increase over existing

= Impacts based on noise level of 66 dBA or greater; values > 66 dBA shown for existing conditions and No-Build Alternative for informational purposes.

= Impact based on noise level exceeding existing level by 15 dBA or more.

present and 2035 and the redistribution of traffic with the build alternatives.

Noise from the No-Build Alternative would impact one property in NSA 1. The projected 2035 noise level at the property is 67 dBA; the increase over the existing noise level is 2 dBA.

Noise from Alternative 2B-2/the Preferred Alternative would impact fifteen properties: three properties in NSA 4, one property in NSA 5, and eleven properties in NSA 6. The projected 2035 noise levels at the properties range from 44 to 66 dBA; the increase over existing noise levels is 3 to 32 dBA. Noise from Alternative 5A2B-2 would impact sixteen properties: one property in NSA 1, three properties in NSA 4, one property in NSA 5, and eleven properties in NSA 6. The projected 2035 noise levels at the properties range from 44 to 66 dBA; the increase over existing noise levels is 3 to 32 dBA.

Noise from Alternative 5B2B-2 would impact eighteen properties: eight properties in NSA 4 and ten properties in NSA 6. The projected 2035 noise levels at the properties range from 47 to 68 dBA; the increase over existing noise levels is 10 to 34 dBA. Noise abatement was considered for the impacted properties. In evaluating potential abatement measures, noise walls were modeled using the FHWA TNM and results compared to MaineDOT criteria for feasibility and reasonableness. For a barrier to be feasible under MaineDOT noise policy, it must provide at least 7 dBA of reduction (i.e., insertion loss). If a barrier is determined to be feasible, it is evaluated for reasonableness. To be reasonable, MaineDOT requires that the barrier cost not exceed $31,000 per benefited residence, based on a barrier cost of $31 per square foot. A benefited residence is one that receives an insertion loss of 7 dBA or greater.

Barriers were determined to be feasible for impacted receptors in the NSAs (exhibit 3.17). However, no barrier evaluated was determined to be reasonable because all options considered exceeded the $31,000 per benefited residence criteria. Sixteen barrier analysis sites were identified along the three build alternatives.

There would be temporary impacts to air quality and noise during construction from the operation of equipment. Proper implementation and maintenance of control measures (e.g., dust/erosion and sedimentation controls, properly fitted emission control devices and mufflers, etc.) would be used to minimize the temporary impacts. During final design, MaineDOT would consider opportunities to specify the use of diesel retrofits, cleaner fuels, and idle reduction measures to minimize emissions from diesel construction equipment. Temporary impacts would cease upon completion of construction.

Exhibit 3.17 – *Summary of Noise Abatement Analysis*

Alternatives	Barrier Location	Impacted Receptors	Consideration of Abatement Warranted?	Noise Abatement Feasible?	Noise Abatement Reasonable?	Details of Barrier Systems				
						Length (feet)	Average Height (feet)	Cost ($)	Benefited Residences	Cost per Benefited Residence ($)
NSA - 1										
5A2B-2	Wilson St./I-395 Interchange	1	Yes	Yes	No	1,148	16.4	584,904	3	194,968
NSA - 4										
5B2B-2	Lambert Road West	3	Yes	Yes	No	2,258	11.7	817,116	3	272,372
5B2B-2	Eastern Avenue	5	Yes	Yes	No	3,197	17.4	1,719,122	2	859,561
2B-2/the Preferred Alternative, 5A2B-2	Eastern Avenue West	3	Yes	Yes	No	2,510	18.3	1,424,546	2	712,273
NSA - 5										
2B-2/the Preferred Alternative, 5A2B-2	Eastern Avenue East	2	Yes	Yes	No	1,389	18.6	799,440	2	399,720
NSA - 6										
5B2B-2	Lambert Road East	2	Yes	Yes	No	3,509	20.0	2,087,448	2	1,043,724
5B2B-2	Day Road East	2	Yes	Yes	No	2,784	19.4	1,671,069	2	835,535
5B2B-2	Day Road West	3	Yes	Yes	No	1,591	17.0	837,378	3	279,126
5B2B-2	Mann Hill Road East	2	Yes	Yes	No	1,981	17.6	1,080,924	2	540,462
5B2B-2	Mann Hill Road West	1	Yes	Yes	No	1,509	17.3	810,124	1	810,124
2B-2/the Preferred Alternative, 5A2B-2	Lambert Road South	2	Yes	Yes	No	2,391	20.0	1,482,490	2	741,245
2B-2/the Preferred Alternative, 5A2B-2	Lambert Road North	2	Yes	Yes	No	2,195	20.0	1,361,029	2	680,515
2B-2/the Preferred Alternative, 5A2B-2	Mann Hill Road East	4	Yes	Yes	No	2,595	19.1	1,533,904	4	383,476
2B-2/the Preferred Alternative, 5A2B-2	Mann Hill Road West	1	Yes	Yes	No	1,535	15.2	721,871	2	360,909
2B-2/the Preferred Alternative, 5A2B-2	Levenseller Road East	1	Yes	Yes	No	1,306	17.3	698,743	1	698,743
2B-2/the Preferred Alternative, 5A2B-2	Levenseller Road West	1	Yes	Yes	No	1,479	15.1	690,505	1	690,505

Note: *The total cost to mitigate noise for each build alternative is: Alternative 2B-2 - $8,712,528; Alternative 5A2B-2 - $9,297,432; Alternative 5B2B-2 - $9,023,181.*

MaineDOT conducted a review of 2012 vehicle classification data to determine what, if any, impact the recent change in Maine Interstate highway weight limits has had on traffic volumes on Route 9, Route 46, and other selected highways. In November of 2011, the allowable gross vehicle weight of Class 10 vehicles (tractor- trailers with six axles) increased from 80,000 pounds to 100,000 pounds. This change is likely to increase the amount Class 10 traffic on Interstate highways, increase Class 10 traffic on highways that connect to the Interstate, and reduce Class 10 traffic on highways that parallel the Interstate.

In 2012, MaineDOT conducted an extensive short-term vehicle classification counting program in central, eastern, and northern Maine to provide new information on Class 10 travel patterns. These class counts, along with data from permanent classification sites, were compared to 2011 class data to identify corridors where changes in Class 10 volumes and travel patterns have appeared.

To address the question of the law's impact on the study area, 2012 data from selected vehicle class sites was reviewed and compared to class data collected at those same sites in 2011 and 2009.

The principal finding of the data review is that there does not appear to be a substantial shift in long distance Class 10 truck traffic from Route 9 in eastern Maine to I-95 in northern Maine. The best sources of Class 10 volume data come from the permanent long-term classification sites, where vehicular traffic is counted and classified year-round. The permanent vehicle classification station on Route 9 in T22MD has shown slightly fewer daily Class 10 trucks in 2012 than in 2011. Meanwhile, the permanent vehicle classification station on I-95 in Medway has shown an increase in the daily Class 10 volume of more than 100 in the southbound (loaded) direction. Further review of short-term classification data in Lincoln and Mattawamkeag shows that the change on I-95 can be attributed almost entirely to Class 10 traffic diverted from parallel U.S. Route 2, where 100,000 pound Class 10 vehicles have been allowed for many years. Other short-term classification counts on Route 9 and Route 46 show mixed results, indicating a small shift, if any. The conclusion is that the Interstate gross vehicle weight increase to 100,000 pounds has resulted in a shift in shorter-length Class 10 trips on parallel routes such as U.S. Route 2, but has not resulted in significant shift in the longer-length Class 10 trips on Route 9.

3.4 Transportation Environment

3.4.1 Transportation Facilities and Systems

The major roads in the study area are I-395, Route 1A, Route 46, and Route 9. I-395, Route 1A, and Route 9 are designated as part of the NHS. Other important local roads in the study area are Eastern Avenue, Mann Hill Road, Levenseller Road, Lambert Road, and Clark Hill Road. These roadways are two-lane rural roads, without shoulders, that provide local connections between residential areas and major roads.

The intersection of Routes 1A and 46 is a signalized intersection. To the east and west of the intersection, Route 1A has a left turn lane and a through lane. The northbound and southbound lanes of the Route 46 intersection only have one lane for all traffic movements.

The intersection of Routes 46 and 9 is an unsignalized "T" intersection with a stop sign controlling traffic on Route 46. The Route 46 northbound side of the intersection has one lane, from which vehicles can turn left or right. Route 9, westbound and eastbound, has one through lane in each direction.

For a complete description of transportation facilities and systems, see the DEIS Section 3.3.1 Transportation Facilities and Systems.

The No-Build Alternative would not impact the transportation facilities and systems in the study area and region. However, during routine maintenance,

the No-Build Alternative would temporarily impact transportation facilities.

The build alternatives would impact the transportation facilities in the study area by improving consistency in operating speeds and reducing travel time. Alternative 2B-2/the Preferred Alternative and Alternative 5B2B-2 would partially reconstruct the existing I-395 interchange with Route 1A (exhibit 2.5); the extent of reconstruction would be determined during final design of Alternative 2B-2/the Preferred Alternative. Alternative 5A2B-2 would require the realignment of approximately 1.5 miles of I-395 to the east of the existing location, the construction of a new interchange between I-395 and Route 1A, and the removal of the easternmost portion of I-395 and the existing interchange with Route 1A (exhibit 2.8). The build alternatives would either bridge over or pass underneath the roads it crosses (exhibits 2.4, 2.7, and 2.9).

The build alternatives would connect to Route 9 at a "T" intersection (exhibit 2.6). Route 9 eastbound would be controlled with a stop sign.

The build alternatives would create an opportunity to redesignate a portion of the NHS in the study area from Water Street in Bangor to the preferred alternative.

The No-Build Alternative would not impact pedestrians and bicyclists.

Bicyclists and pedestrians would be allowed to use the build alternatives. The build alternatives would function as an extension of the existing Route 9, or like any other one lane non Interstate controlled access facility in the state. An example where bicyclists and pedestrians are allowed is Route 196 in Topsham. The only locations that the State of Maine prohibits bicyclists or pedestrians without a positive separation between the traffic and the pedestrians are facilities with two lanes or more in each direction that function like interstate facilities. It should be noted that some states allow bicyclists on the interstate system (two lanes or more in each direction) without positive separation. Maine does not allow that. Bicyclists would have access to the build alternatives without needing to use the interstate system. The state may consider closing the facility to pedestrians because of the long distance without any outlets.

MaineDOT would work with town officials and evaluate Route 9 for potential improvements to improve safety for pedestrians and bicyclists along Route 9. Providing safe access for pedestrians and bicyclists along the road system typically consists of paved shoulders, sidewalks in highly developed areas, high visibility crossings where warranted, and signage to help alert drivers of the presence of bicyclists and pedestrians on the road system. A road safety audit would be conducted in conjunction with town officials and residents to develop potential immediate and longer term improvements that the town can consider as options to improve safety for pedestrians and bicyclists.

The build alternatives would not impact the bus, air, and rail transportation systems in the study area and region.

3.4.2 System Continuity and Mobility

Poor system continuity was identified as one of the needs for highway improvements in the study area (section 1.3.1). The transitions in travel speed, roadway geometry, and capacity for motorists traveling between I-395 and Route 9 are inconsistent and contribute to safety concerns, delays in passenger and freight movement, and conflicts between local traffic and regional traffic.

Severe traffic congestion exists on Route 1A and it becomes more noticeable in the approach to I-395. Traffic congestion is most pronounced in the summer months. Motorists can experience considerable delays when attempting to turn left across traffic and onto Route 1A, and many serious crashes have occurred on Route 1A.

The No-Build Alternative would not improve system continuity. Traffic would continue to use existing roads – primarily Route 1A and Route 46 – to travel between I-395 and Route 9. Over time, with increasing traffic congestion, system continuity on existing routes would worsen. The transitions in travel speed, roadway geometry, and capacity would increasingly become more inconsistent for travelers with growth in overall traffic volume and changes in traffic composition with increased truck traffic. Improvement of the intersection of Routes 9 and 46 would improve operational capacity (additional through-lanes and dedicated turn lanes) of the intersection but would not substantially improve overall system continuity or mobility for regional travelers.

The build alternatives would improve system continuity for regional travel between I-395 and Route 9 by providing a new controlled-access highway with improved continuity in speeds and roadway geometry. The proposed highway would carry a similar lane configuration throughout the entire length and would be posted at 55 mph. The proposed highway would bypass portions of Routes 1A and 46 in the study area that lack continuity. Delays at the signalized intersection of Routes 1A and 46 would be less than 80 seconds for all movements, with the exception of left turns from westbound Route 1A to southbound Route 46, due to reductions in through-traffic along Route 1A. At the intersection of Routes 9 and 46, delay for vehicles from Route 46 northbound to Route 9 in 2035 would decrease to approximately 21.5 seconds.

3.4.3 Existing and Projected Demand

Future traffic volumes for study-area roadways were forecasted to 2035, which was chosen because it represents the future design year for which alternatives are being evaluated. With the 2008 economic downturn and increase in the price of gas, traffic in the study area has not

grown as fast as previously forecast. In December 2009, MaineDOT reexamined the system linkage need and Route 9 in greater detail to determine whether it could reasonably accommodate the future traffic volumes foreseeable within the next 20 years. MaineDOT believes the growth in traffic and traffic volumes originally forecast for Route 9 and the rest of the study area for the year 2030 would not materialize until the year 2035 and Route 9 has adequate capacity and would continue to operate at an acceptable level of service and operating speed up to and beyond the year 2035 (the time period that has been determined to be reasonably foreseeable). The 2035 traffic-volume projections were derived based on a review of traffic forecasts from the statewide travel-demand model and historical traffic-volume increases.

Future 2035 AADT volumes compared with 1998, 2006, and 2010 AADT (exhibit 1.3) depict travel demand growth trends in the study area. Volumes are shown for eight roadway segments that form important links in the area transportation network. The three major roadway segments currently used by drivers from I-395 to Route 9 north of the study area (i.e., Route 1A west of Route 46, Route 46 north of Route 1A, and Route 9 east of Route 46) are projected to have the largest percentage increases in AADT in the local transportation network between 2010 and 2035. These same roadway segments would experience substantial growth in the heavy-truck component of the AADT by 2035.

Estimates of roadway performance were developed using the applicable DHV, v/c ratio, and LOS for five major roadway segments within the study area (exhibit 1.5). Traffic volumes along Route 1A are forecasted to exceed roadway capacity by 2035 under the No-Build Alternative condition, with an accompanying LOS of F and reduction in average travel speed. Route 46 performance would fall to LOS D with a marked reduction in average travel speed, and conditions along Route 9 would decrease to LOS E.

The No-Build Alternative would not improve regional mobility, traffic congestion, or safety in the study area. Over time, with increasing traffic volumes, roadway performance would continue to decline in terms of LOS and travel speeds. Increases in heavy truck traffic, especially along Route 46 between Routes 1A and 9, would further exacerbate capacity and safety issues.

With the build alternatives, roadway-system performance would improve in comparison to the No-Build Alternative (exhibit 3.18). In 2035, the new two-lane highway would carry approximately 20 percent (i.e., 7,745 AADT) of the total traffic through the study area and a majority of the traffic destined between I-395 and Route 9, thereby reducing traffic volumes and increasing mobility and safety on Routes 1A and 46. The study area would experience reductions of regional-through heavy-truck traffic on Routes 1A and 46 because those trips would use the proposed highway, whereas

Exhibit 3.18 – *Changes in Traffic Volumes*

Location	No-Build Alternative		Build Alternatives		Change in 2035 AADT No-Build v. Build	% Change in 2035 AADT No-Build v. Build
Total AADT	**2010**	**2035**	**2010**	**2035**		
Route 1A east of I-395	22,236	33,070	20,754	26,410	-6,660	-20.1
Route 1A west of Route 46	16,976	30,600	15,494	23,940	-6,660	-21.8
Route 1A east of Route 46	12,116	18,870	12,116	18,870	0	0.0
Route 46 south of Route 1A	2,021	3,130	2,021	3,130	0	0.0
Route 46 north of Route 1A	3,058	8,570	1,576	1,910	-6,660	-77.7
Route 9 east of Route 178	7,156	8,730	6,071	7,645	-1,085	-12.4
Route 9 west of Route 46	5,129	5,410	6,611	12,070	6,660	123.1
Route 9 east of Route 46	5,830	10,940	5,830	10,940	0	0.0
Truck AADT	**1998**	**2035**	**2035**			
Route 1A east of I-395	1,569	2,449	1,439		-1,010	-41.2
Route 1A west of Route 46	1,569	2,449	1,439		-1,010	-41.2
Route 1A east of Route 46	1,569	2,449	1,439		-1,010	-41.2
Route 46 south of Route 1A	265	281	281		0	0.0
Route 46 north of Route 1A	604	1,167	157		-1,010	-86.5
Route 9 east of Route 178	569	662	447		-215	-32.5
Route 9 west of Route 46	604	1,167	2,177		1,010	86.5
Route 9 east of Route 46	879	1,535	1,535		0	0.0

heavy-truck traffic along Route 9 west of Route 46 would increase over the No-Build Alternative. The build alternatives, including those that use portions of Route 9, would improve the quality of traffic flow at the intersection of Route 9/46 and other physically less intrusive improvements (e.g., adding turn lanes) could be made to the intersection that would further improve the quality of traffic flow at the intersection.

Improvements in LOS, or no further decrease in LOS, would occur on each of the key roadway segments in the study area with implementation of a build alternative (exhibit 3.19).

3.4.4 Crash Reductions

Locations in the study area exhibit higher crash rates than other locations in Maine with similar roadway and traffic characteristics. Of the major roads in

Exhibit 3.19 – *Changes in DHV, v/c Ratio, Travel Speed, and LOS*

Year	DHV	v/c Ratio	Average Travel Speed (mph)	LOS Rural Two-Lane Road
Route 1A east of I-395				
2035 No Build	3,269	1.12	varies	F
2035 Build	2,612	0.9	28	E
Route 1A east of Route 46				
2035 No Build	2,123	0.72	37.5	E
2035 Build	2,123	0.72	37.5	E
Route 46 between Route 1A and Route 9				
2035 No Build	1,006	0.4	40.8	D
2035 Build	346	0.15	45	C
Route 9 east of Route 178				
2035 No Build	873	0.36	39.5	E
2035 Build	764	0.32	40.3	D
Route 9 east of Route 46				
2035 No Build	1,267	0.46	39.3	E
2035 Build	1,267	0.46	39.3	E

the study area, the section of Route 1A between Parkway South and I-395 and the intersection of Route 9 (known locally as North Main Street) and Riverside Drive are the sites of six HCLs (exhibit 1.2).

To evaluate the potential improvement in safety, the No-Build Alternative and the build alternatives were evaluated using the FHWA Interactive Highway Safety Design Model (IHSDM) (FHWA, 2010). IHSDM is a suite of software analysis tools for evaluating the safety and operational effects of highway design. The model is intended to predict the functionality of proposed or existing roadway designs by applying chosen design guidelines and generalized data to predict performance of the design. Although based on engineering design and roadway-environment conditions, estimates from IHSDM are expected values from a statistical sense (i.e., they represent the estimated average performance among a large number of sites with similar characteristics). Actual performance or experiences associated with the roadway may vary over time; therefore, IHSDM estimates are intended to be only one of many inputs into the decision-making process (FHWA, 2003).

Estimates of crashes for the No-Build Alternative and the build alternatives were developed using engineering alignments and the Crash Prediction Module of the IHSDM model. Crash types estimated were Fatal/ Serious Injury, Injury, and Property Damage Only (PDO). The Fatal/Serious Injury crashes generally involve a fatality, disabling injury, or long-term incapacitation. An Injury crash typically involves an injury with a short- to medium-term recovery period. PDO crashes involve no injuries and typically involve only damage to vehicles or other property.

The build alternatives have a lower crash potential than the No-Build Alternative. Alternative 2B-2/the Preferred Alternative would have the lowest number of potential crashes across all three crash types. The major factor providing an advantage to the build

alternatives concerning potential crash events is the crossroads and driveway-access points, fewer vehicle conflict points exist with the build alternatives in comparison to the No-Build Alternative. The improved horizontal and vertical grades (i.e., fewer sharp turns and hills than the No-Build Alternative) of the build alternatives contribute to reduced crash potential.

To estimate the potential costs associated with the range and number of predicted crashes, mean cost data were derived as composite results from the FHWA's Crash Cost Estimates by Maximum Police- Reported Injury Severity within Selected Crash Geometries (FHWA, 2005) using undefined crash-geometry estimates. Mean-cost data used were comprehensive estimates, including costs for medical treatment, emergency services, property damage, lost productivity, and adverse effects on quality of life. The crash costs were adjusted to 2011 value using the Consumer Price Index (CPI) for capital-cost components (i.e., medical treatment, emergency services, property damage, and lost productivity) and the Employment Cost Index for quality-of-life effects.

With Alternative 2B-2/the Preferred Alternative, modeled crash costs would provide an approximate 28 percent savings in comparison to the No-Build Alternative. Cost savings of 20 to 22 percent would be realized with Alternatives 5A2B-2 and 5B2B-2 over the No-Build Alternative (exhibit 3.20).

3.4.5 Mobility Benefits, including Economic Benefits

To illustrate the mobility benefits of implementation of a build alternative, VHT and VMT changes were monetized and compared to the No-Build Alternative. VHT and VMT were derived from the shift of traffic from Route 1A and Route 46 to the build alternatives and Route 9.

Exhibit 3.20 – *Crash Estimates and 2035 Annual Costs*

Alternative	Number of fatal/serious injury crashes	Cost for fatal/serious injury crash ($3,493,128 per)	Number of injury crashes	Cost for injury crash ($83,546 per)	Number of PDO crashes	Cost for PDO crash ($9,410 per)	Total Crash Costs	Crash Cost Savings over No-Build
No-Build	5.14	$17,954,678	9.38	$783,661	19.85	$186,789	$18,925,128	0
2B-2/the Preferred Alternative	3.75	$13,099,230	6.85	$572,290	14.50	$136,445	$13,807,965	$5,117,163
5A2B-2	4.14	$14,461,550	7.56	$631,608	16.00	$150,560	$15,243,718	$3,681,410
5B2B-2	4.02	$14,042,375	7.33	$612,392	15.52	$146,043	$14,800,810	$4,124,318

Note: *Crash output obtained using: Interactive Highway Safety Design Model (IHSDM), FHWA, 2010 Release.*
Crash cost estimates derived from: Crash Cost Estimates by Maximum Police-Reported Injury Severity Within Selected Crash Geometries. FHWA October 2005. Publication No. FHWA HRT-05-051

Monetized benefits for VMT were calculated using only typical variable vehicle-operating costs (i.e., fuel and oil, repair and maintenance, and tires) for passenger vehicles and freight trucks. For passenger vehicles, the average variable operating cost per mile of $0.1774 (a composite value considering costs of small, medium, and large size automobiles) was based on American Automobile Association (AAA) data for 2011. Freight-truck per-mile variable costs of $0.65 were developed using 2010 data from the American Transportation Research Institute (ATRI).

Net present-value cost savings for passenger-vehicle drivers and freight-truck drivers would be approximately six percent with Alternative 2B-2/the Preferred Alternative, whereas drivers with Alternatives 5A2B-2 and 5B2B-2 would spend an additional four percent to seven percent, in comparison to the No-Build Alternative, to travel between I-395 and Route 9. The differences in costs are directly attributable to the length of the build alternatives (exhibit 3.21).

Monetized benefits for vehicle hours travelled (VHT) were calculated using variable vehicle-operating costs, fixed vehicle operating costs (i.e., vehicle financing, insurance, taxes, license and registration, and depreciation), and operator-based costs (i.e., value of personal time, considering wages, benefits, and trip purpose).

Exhibit 3.21 – *Changes in VMT and Vehicle Operating Costs*

Alternative	AADT	Length (miles)	Vehicle Miles Traveled	Vehicle Operating Costs per Mile	Vehicle Operating Costs	Operating Cost Savings over No-Build
Passenger Vehicle[1]						
No-Build	6,520	10.2	23,582,579	0.1774	$4,183,550	$0
2B-2/the Preferred Alternative	6,520	6.1	22,189,907	0.1774	$3,936,490	$247,060
5A2B-2	6,520	7.3	25,114,518	0.1774	$4,455,316	-$271,766
5B2B-2	6,520	7.0	24,394,971	0.1774	$4,327,668	-$144,118
Freight Truck[2]						
No-Build	1,225	10.2	4,430,776	0.65	$2,880,004	$0
2B-2/the Preferred Alternative	1,225	6.1	4,169,116	0.65	$2,709,925	$170,079
5A2B-2	1,225	7.3	4,718,602	0.65	$3,067,091	-$187,087
5B2B-2	1,225	7.0	4,583,411	0.65	$2,979,217	-$99,213

Notes:

[1] Passenger vehicle-operating costs derived from "Behind the Numbers–Your Driving Costs, 2011 Edition". American Automobile Association (AAA).

[2] Freight-truck operating costs derived from: "An Analysis of the Operational Costs of Trucking: 2011 Update". American Transportation Research Institute.

Using U.S. Department of Transportation guidance on the Valuation of Travel Time in Economic Analysis (USDOT, 2003), values of operator-based costs for passenger vehicles were adjusted to 2011 dollars and estimated to be $20.45 an hour for each "all-purpose" automobile (i.e., a weighted average of business automobile and passenger automobile travelers). Total vehicle operating costs (variable and fixed) were estimated to be $1.00 per hour based on AAA data, resulting in a total VHT value of $21.45 for passenger vehicles.

The value of travel time for freight trucks was based on adjusted 2010 average marginal-cost data for truck operations from the ATRI, resulting in a total VHT value of $59.61 per hour for heavy trucks.

Using VHT as a comparative criterion that considers both the alternative length and travel speed, each build alternative would provide cost savings over the No-Build Alternative. VHT savings with the build alternatives for both passenger and freight trucks range from six percent to 16 percent. VHT and monetized savings are highest with Alternative 2B-2/the Preferred Alternative, whereas savings with Alternative 5A2B-2 are approximately 11 percent less and with Alternative 5B2B-2 are approximately 40 percent less (exhibit 3.22).

Exhibit 3.22 – *Changes in VHT and Vehicle Operating Costs*

Alternative	AADT	Length (miles)	Miles Traveled	Vehicle Hours Traveled	Travel Time Savings over No-Build (Hours Traveled)	Vehicle Total Costs per Hour	Total Vehicle Travel Time Cost Savings over No-Build
Passenger Vehicle[1]							
No-Build	6,520	10.2	23,582,579	524,058	0		
2B-2/the Preferred Alternative	6,520	6.1	22,189,907	438,246	85,812	$21.45	$1,840,667
5A2B-2	6,520	7.3	25,114,518	491,421	32,637	$21.45	$700,064
5B2B-2	6,520	7.0	24,394,971	478,338	45,720	$21.45	$980,694
Freight Truck[2]							
No-Build	1,225	10.2	4,430,776	98,462	0		
2B-2/the Preferred Alternative	1,225	6.1	4,169,116	82,339	16,123	$59.61	$961,092
5A2B-2	1,225	7.3	4,718,602	92,330	6,132	$59.61	$365,529
5B2B-2	1,225	7.0	4,583,411	89,872	8,590	$59.61	$512,050

Notes:

[1] Passenger-vehicle operating costs derived from "Behind the Numbers–Your Driving Costs, 2011 Edition", American Automobile Association, and FHWA "Revised Guidance on the Valuation of Travel Time in Economic Analysis", February 11, 2003.

[2] Freight-truck operating costs derived from "An Analysis of the Operational Costs of Trucking: 2011 Update". American Transportation Research Institute.

3.5 Land Use and Cultural, Social, and Economic Environments

3.5.1 Land Use

3.5.1.1 Land Use and Land Cover

Land use was identified using the USGS "A Land Use and Land Cover Classification System for Use with Remote Sensor Data" (USGS, 1983). Forest land is the dominant land use in the study area, encompassing approximately 66 percent of the area. The second-most dominant land use is shrub, which encompasses approximately 10 percent of the study area. Because these two land uses dominate, most of the study area is sparsely developed. Approximately nine percent of the study area is residential and one percent is commercial. Most commercial development is located along Route 1A in Brewer. For a complete description of land use, see the DEIS Section 3.4.1.1 Land Use and Land Cover.

The No-Build Alternative would result in minimal adverse impacts to land use. Over time, traffic volumes along Routes 1A, 9, and 46 through the study area would increase, resulting in longer delays and congestion. As traffic volumes increase, more local traffic would divert to local roads seeking alternate routes to bypass traffic congestion in and approaching the study area. Increasing traffic volumes on local roads would lead to increased congestion and longer delays for motorists traveling on them, as well as a general decrease in the local quality of life. The increased congestion and longer delays would further exacerbate existing conditions that make it difficult for businesses to thrive and residents to travel unimpeded.

During public-involvement activities, residents in the study area favored keeping the build alternatives as separated from residential areas as possible. They strongly indicated that they placed a higher value on maintaining quiet residential areas than on preserving open space, which they felt was more important in comparison. In general, residents felt that the social environment should be valued more highly than the natural environment.

The build alternatives would impact land use through the acquisition of property and the conversion of land uses to transportation use. The conversion of land use would range from approximately 163 to 215 acres (exhibit 3.23).

For people living and working in proximity to the build alternatives, their view of the landscape in the area would change. The scenic view of some areas would be altered by the build alternatives and the loss of aesthetic resources such as vegetation, forestland, farmland, pastures, and/or streams.

The build alternatives would introduce additional lighting along highways and at the proposed interchanges and possibly lighting at the intersection. The build alternatives would introduce new lighting, to areas with little or no lighting, from headlights.

Exhibit 3.23 – *Impacts to Land Use (acres)*

	No-Build	2B-2/ the Preferred Alternative	5A2B-2	5B2B-2
Residential	7	12	11	
Commercial	3	4	3	
Agricultural	21	23	29	
Transportation, Communications, Utilities	5	7	7	
Mowed Grass	5	6	6	
Shrub	21	42	28	
Dense Shrub	1	2	6	
Deciduous Forest	89	98	93	
Coniferous Forest	1	1	0	
Mixed Forest	9	20	2	
Surface Water	1	0[1]	1	
Total	163	215	186	

Note: *[1] Impact less than a half-acre.*

Lighting at the interchanges and intersection would allow motorists to safely enter and exit the build alternatives. Lighting from vehicles using the build alternatives would affect homes and businesses that are located close to them. Typically, low beam and high beam headlights shine no more than 350 and 450 feet ahead, respectively (Naval Safety Center, 2004).

3.5.1.2 Relocations

The process for property acquisition is explained in the State of Maine, Department of Transportation, A Land Owner's Guide to the Acquisition Process (MaineDOT, 2002). When it is determined that a property or portion of a property is to be acquired, a market assessment is performed. The acquisition and relocation program would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources are available to all residential and business relocatees without discrimination. MaineDOT would provide just compensation in accordance with the Uniform Relocation Act for the property to be acquired. If landowners believe that the offer for their property is unfair, an appeals process exists to resolve the differences about the value. The Uniform Relocation Act protects landowners from unfair and inequitable acquisition of property.

The build alternatives would displace 6 to 16 residences. Alternative 5A2B-2 would displace the Brewer Fence Company, Eden Pure Heaters, Mitchell's Landscaping & Garden Center, and Town 'N Country Apartments. Alternative 5B2B-2 would displace the Bangor Hydro-Electric Company building and a compressor station (exhibit 3.24).

For Alternative 2B-2/the Preferred Alternative, the properties of those potentially displaced residents range from approximately 0.50 acre to 20.19 acres, with the majority between 2.0 and 4.0 acres. The assessed value of those potentially displaced properties and residences range from approximately $50,000 to $340,000, with the majority between approximately $147,000 and $323,000.

Exhibit 3.24 – *Displacements*

	Residences	Businesses	Business Impacts
No-Build			
2B-2/ the Preferred Alternative	8	None	-
5A2B-2	16	Brewer Fence Company, Eden Pure Heaters, Mitchell's Landscaping & Garden Center, and Town 'N Country Apartments	
5B2B-2	6	Bangor Hydro-Electric Co. Building, and Maritimes and Northeast Pipeline LLC c/o Duke Energy Compressor Station	-

For Alternative 5A2B-2, the properties of those potentially displaced residents range from approximately 0.50 acre to 20.19 acres, with the majority between 2.0 and 4.0 acres. The assessed value of those potentially displaced properties and residences range from approximately $50,000 to $340,000, with the majority between approximately $147,000 and $323,000.

For Alternative 5B2B-2, the properties of those potentially displaced residents range from approximately 0.50 acre to 20.19 acres, with the majority between 2.0 and 4.0 acres. The assessed value of those potentially displaced properties and residences range from approximately $50,000 to $340,000, with the majority between approximately $124,000 and $242,500.

MaineDOT performed an assessment for comparable replacement housing for those potentially displaced residents in January 2014 and concluded sufficient replacement housing exists in the area. In January 2014, there were approximately 150 homes of comparable size and price range for sale in the City of Brewer and the Towns of Holden and Eddington. When the Towns of Clifton and Dedham are also considered, there were approximately 240 homes of comparable size and price range for sale.

Based on the value of properties to be acquired and the number of homes of similar price and functionality available in the study area and region, it appears that finding a suitable replacement property that meets characteristics, needs, income, preferences, and other factors pertinent for successful relocation of the affected households would be achievable. However, based on their experience with other projects, MaineDOT acknowledges that locating suitable (safe, decent, and sanitary) replacement housing within the financial capability of affected property owners may not be possible in all cases and providing last resort housing may be required. Last resort housing is a procedure in which MaineDOT (under the Federal Relocation Assistance Program) provides financial assistance to a displaced person when comparable decent, safe, and sanitary housing is not available that is within the financial means of the displaced person.

Further, as the Proposed Action is anticipated to be constructed in phases due to financial constraints, the demand for available housing and commercial property stock in the study area and region would be spread

out over a period of years. The acquisition and relocation program would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources are available to all residential relocates without discrimination.

Following the availability of the FEIS, MaineDOT would coordinate with those potentially displaced residents to determine special relocation considerations and any measures required to resolve relocation concerns.

The No-Build Alternative would not impact local tax revenues.

The build alternatives would result in a reduction in tax revenue in Brewer, Holden, and Eddington because the land converted to transportation use would no longer be tax-eligible. Annual tax revenue would decrease by approximately:

Alternative 2B-2/the Preferred Alternative

- Brewer: $37,000
- Holden: $7,200
- Eddington: $20,200

Alternative 5A2B-2

- Brewer: $42,700
- Holden: $19,100
- Eddington: $19,400

Alternative 5B2B-2

- Brewer: $159,200
- Holden: $0
- Eddington: $9,400
-

The decreases in revenue represent less than two percent of total tax revenues in each municipality.

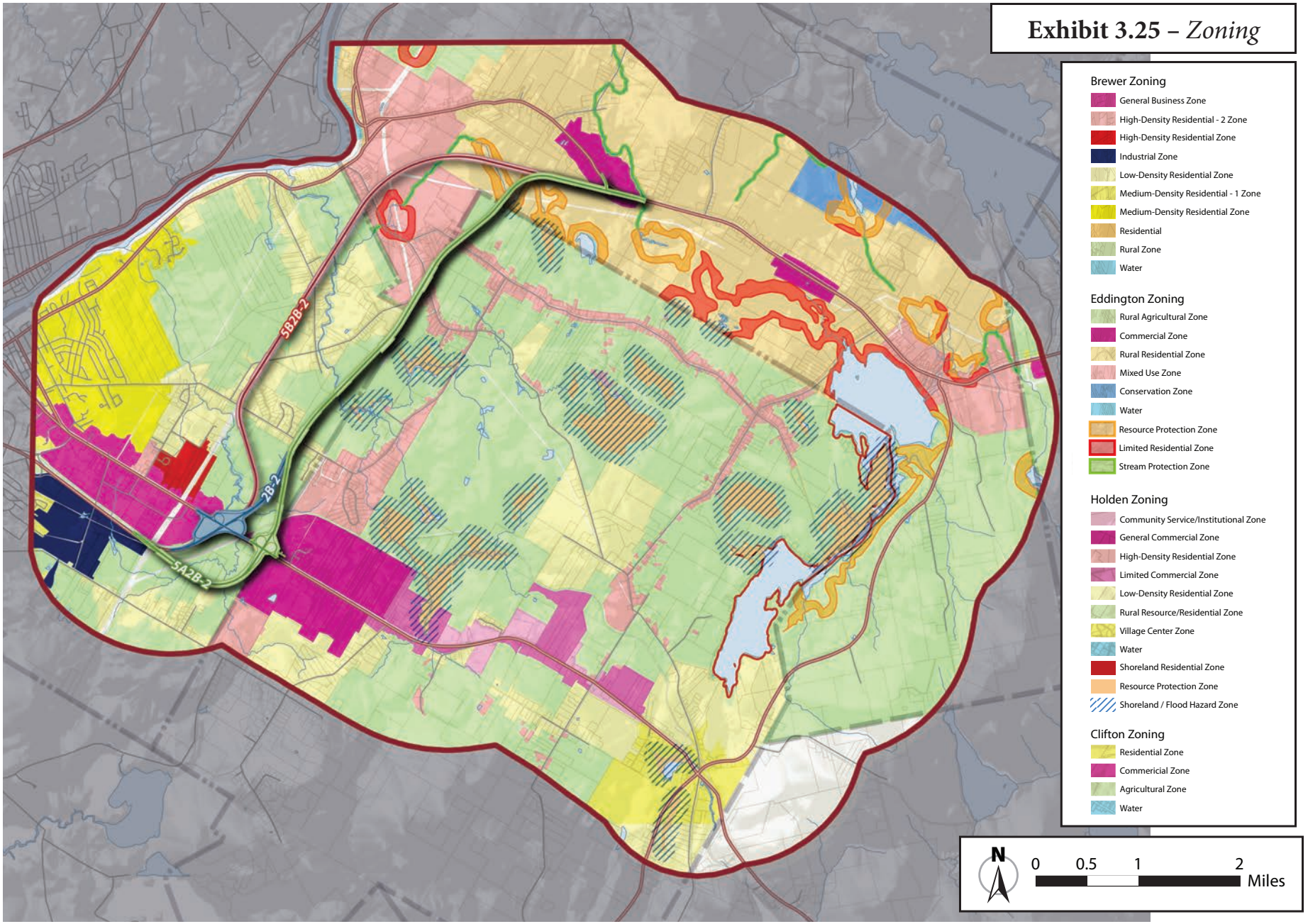
3.5.1.3 Future Land Use and Zoning

The comprehensive plans for Brewer, Holden, and Eddington promote the expansion of commercial and residential uses in or near areas of existing development, development of supporting transportation networks, and the protection of open spaces. For a complete discussion on future land use and zoning, see DEIS Section 3.4.1.3 Future Land Use and Zoning.

Much of the land in the study area in Brewer is zoned for rural uses (exhibit 3.25). Most of the land in Holden is zoned rural resource and residential development (exhibit 3.25). Since the circulation of the DEIS, Eddington updated its zoning ordinance. Most of the land in Eddington is zoned for agriculture and farming (exhibit 3.25). Areas zoned for residential and commercial uses exist along Route 9, Route 46, and other local roads (Town of Eddington, 2012). Most of the land in Clifton is zoned as agriculture or rural resource.

The No-Build Alternative would impact future land use and zoning. Future land use in the study area likely would consist of an extension of the existing permitted

Exhibit 3.25 – *Zoning*



Sources: *1)City of Brewer. Land Use Map. June 2010. 2)Town of Eddington. Zoning Ordinance. Enacted March 20, 2012. 3) Town of Holden, Maine. Zoning Ordinance. Amended December 21, 2009. 4) Clifton Comprehensive Plan. Amended August 2005.*

land uses and trends and the future land use plans identified in the Brewer, Holden, and Eddington comprehensive plans. Without relief of traffic congestion, the No-Build Alternative likely would have an adverse impact on future business expansion and new development along Route 1A. With increased traffic volumes, the number of crashes experienced between vehicles entering and exiting businesses along Route 1A could increase.

Although a portion of the build alternatives would be in the limited commercial area along the Route 1A corridor, they are inconsistent with the comprehensive plans of Brewer, Holden, and Eddington because areas designated for rural resource/residential would be converted to transportation use (exhibit 3.26). Implementation of the build alternatives would detract from the rural character in the central and northern portions of the city of Brewer and the towns of Holden and Eddington.

By reducing traffic congestion, the build alternatives would have a beneficial impact on future business expansion and new development along Route 1A and, to a limited extent, along Route 9. The build alternatives would benefit the land uses along Route 46 from reduced traffic.

MaineDOT would work with the town of Eddington to maintain the safety and preserve the capacity of Route 9 in the study area. MaineDOT manages access points with Maine's rules governing access management (driveway and entrance siting). Safety, traffic congestion, and system linkage remains a priority concern of MaineDOT, as is preservation of the capacity of the existing highway system. Activities that could be considered to maintain safety and preserve the capacity of Route 9, in accordance with Maine's rules governing access management (driveway and entrance siting) can go no further than working with the town of Eddington to change zoning, eliminating existing and future curb cuts, and working with individual landowners to acquire property or development rights. That authority already exists to help both MaineDOT and the community ensure that safety is maintained in the corridor. MaineDOT has no authority

Exhibit 3.26 – *Impacts to Land Use with Zoning Designations (acres)*

	Agriculture	Commercial	High-Density Residential	Medium-Density Residential	Low-Density/ Rural Residential	Rural	Total[1]
No-Build							
2B-2/the Preferred Alternative	27	9	2	27	15	76	156
5A2B-2	28	18	2	29	17	112	206
5B2B-2	58	10	0	18	22	69	177

Note: *[1] Total acres do not include area in infrastructure/utility zoning designations or surface water.*

beyond the existing rules to force Eddington to do anything to help reduce traffic conflicts, but MaineDOT is directed by statute to work with Eddington to ensure safety and proper access to the state highway system.

Today, the current AADT along Route 9 in Eddington between the terminus of the Alternative 2B-2/the Preferred Alternative and the Route 46 intersection is approximately 5,000 vehicles per day. The posted speed in this section of Route 9 is predominantly 45 mph, with 35 mph near the Route 46 intersection. Traffic on Route 9 can comfortably travel at the current posted speeds. This segment of Route 9 was constructed to a width that meets current NHS standards for 2-lane highways (12-foot travel lanes and 8-foot shoulders).

With Alternative 2B-2/the Preferred Alternative, the 2035 AADT along this segment of Route 9 is forecast to be approximately 12,000 vehicles per day. At that level of traffic flow, Route 9 can easily be maintained at the current posted speeds. There are many locations in Maine where AADTs of 15,000 to 17,000 are accommodated on 2-lane highways with 35-to-50 mph speeds. Many of these locations have more intense commercial development that Route 9 in Eddington. This indicates that traffic volume growth on Route 9 can be accommodated well beyond the year 2035.

As part of its planning process, MaineDOT regularly monitors traffic volume and traffic safety trends on all state highways, including Route 9. Traffic volumes are updated every three years, and crash data is reviewed annually to identify emerging conditions that would compromise safety and mobility. MaineDOT regulates development access to Route 9 through application of access management rules. These rules require a new development to provide safe access and maintain adequate mobility on the highway.

One way of maintaining safety and mobility along Route 9 as future development occurs is by establishing turn lanes where needed to minimize conflicts between turning traffic and through traffic. This treatment improves the safety of turns while maintaining or improving the flow of through traffic. There are examples in Maine where AADTs of 17,000 to 19,000 are accommodated on 3-lane highways (which have a 2-way left turn lane between the through lanes) with 40-to-50 mph speeds. Route 9 is adaptable within the existing Right-of-Way to this type of treatment, if conditions warrant.

With the capacity to accommodate much more than the forecasted traffic, the regular monitoring of safety and mobility conditions by MaineDOT, and the ability to accommodate additional development in a safe and efficient manner, the transportation benefits of Alternative 2B-2/the Preferred Alternative should be sustainable well beyond 2035.

MaineDOT would work with town officials and evaluate Route 9 for potential improvements to improve safety for pedestrians and bicyclists along Route

9. Providing safe access for pedestrians and bicyclists along the road system typically consists of paved shoulders, sidewalks in highly developed areas, high visibility crossings where warranted, and signage to help alert drivers of the presence of bicyclists and pedestrians on the road system. A road safety audit would be conducted in conjunction with town officials and residents to develop potential immediate and longer term improvements that the town can consider as options to improve safety for pedestrians and bicyclists.

3.5.1.4 Neighborhoods

Brewer is part of the Bangor, Maine, metropolitan area and is divided into the villages of South Brewer and North Brewer. Neighborhoods along Eastern Avenue in Brewer are Felts Brook Green, Timber Ridge, Winter Way, and Beech Ridge. Nature's Way is located along Lambert Road (City of Brewer, 1995). Route 1A divides the town of Holden into two parts: the southern portion and the northern portion.

The neighborhoods in Holden are Barrett Lane along Mann Hill Road; Brookfield Estates along Eastern Avenue; and the houses along Brian Drive, Eaton Ridge, and Gilmore Estates along South Road.

East Eddington exists within the town of Eddington. The neighborhoods are Rae Lorraine and Martin Lane along Main Road and Fifield Estates along Rooks Road. Residents along the primary roads in the study area also define themselves as neighborhoods.

The No-Build Alternative would not impact community cohesion. A community is defined as a group of people living together because of geography, background, or heritage. The town of Holden reported that Route 1A, which bisects the town into southern and northern portions, acts as a physical barrier to community interaction. Increased congestion on Route 1A would increase this barrier effect.

The No-Build Alternative would not impact neighborhoods.

Alternative 2B-2/the Preferred Alternative and Alternative 5A2B-2 would bisect the five-lot Beech Ridge neighborhood in the city of Brewer (exhibit 3.27). These alternatives would be approximately 100 feet east of Winter Way. Alternative 5A2B-2 would be to the immediate west of the Pine Tree Mobile Home Park. Alternative 5B2B-2 would be to the immediate east of Felts Brook Green.

3.5.1.5 Community Facilities and Services

Community facilities and services are listed and discussed in the DEIS Section 3.4.1.5 (exhibit 3.28).

There is a weekly trash collection resulting in stop and go traffic along Route 9 and other roads in the study area.

Exhibit 3.27 – *Impacts to Neighborhoods*

	Felts Brook Green	Brookfield Estates	Pine Tree Mobile Home Park	Brian Drive	Beech Ridge	Easton Ridge	Winter Way	Timber Ridge	Nature's Way	Barrett Lane	Rae Lorraine	Martin Lane	Fifield Estates
No-Build													
2B-2/the Preferred Alternative													
5A2B-2													
5B2B-2													

Legend: Direct Impact Immediately Adjacent to Neighborhood Within 500 feet of Neighborhood

The No-Build Alternative would not impact educational facilities. Over time, increased traffic volumes and congestion could impact the safety of students traveling along Routes 1A, 9, and 46 in proximity to schools. In general, the build alternatives would have a positive impact on student safety by reducing through traffic, including heavy-truck traffic, along school-bus routes. This benefit would be particularly evident on Route 46 (particularly the Holbrook School and Camp Roosevelt Scout Reservation along Route 46), given its terrain and more restricted sight distance. The build alternatives would increase traffic west of Eddington School.

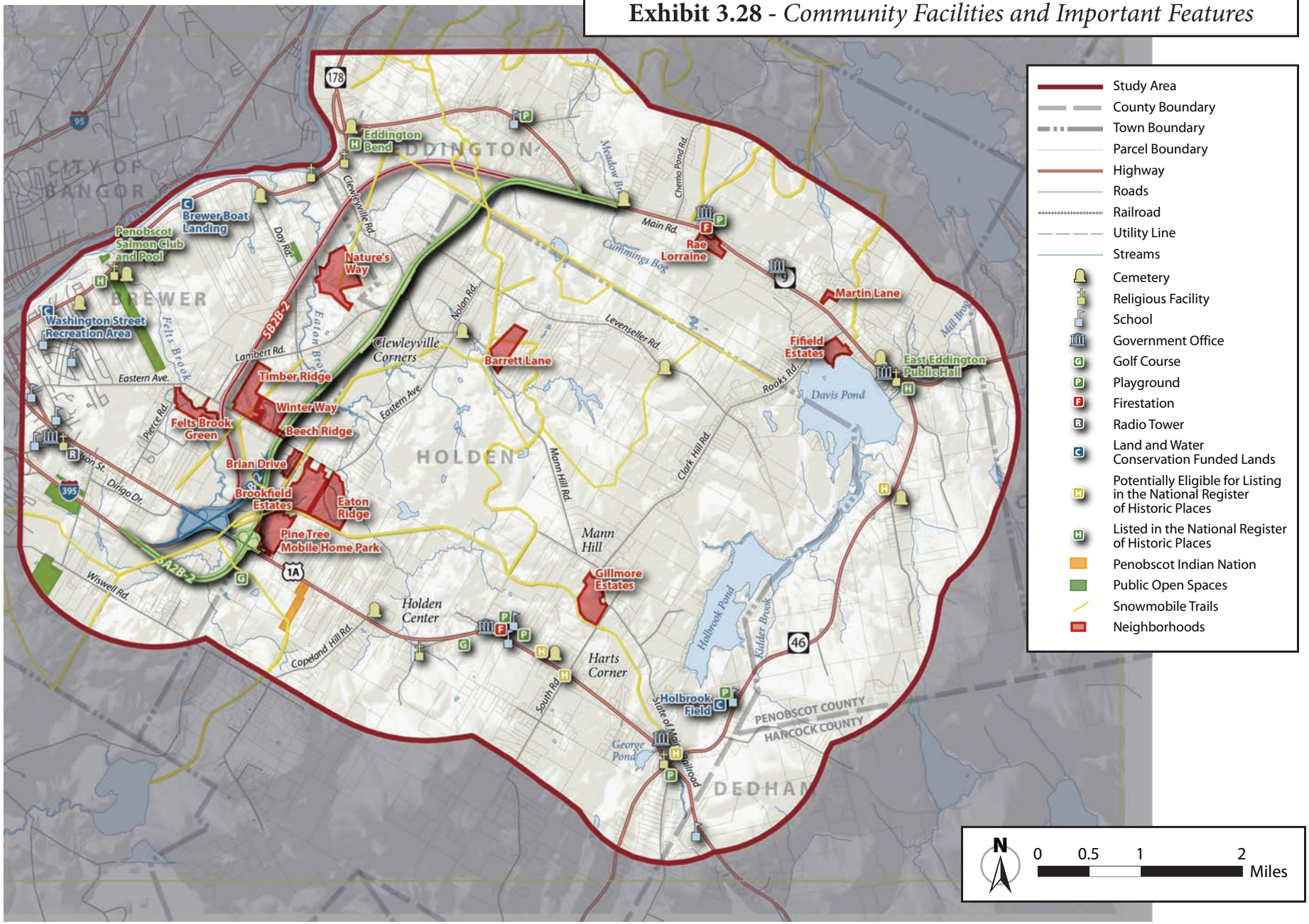
The No-Build Alternative would not impact emergency facilities. Over time, increased traffic volumes and congestion could impact response times of emergency responders.

The build alternatives would positively impact emergency facilities by reducing traffic along Route 1A and a corresponding decrease in emergency vehicle response times. Emergency response services (e.g., fire, police, and ambulance) would benefit from a reduction in traffic congestion on Route 1A from the build alternatives.

The No-Build Alternative and the build alternatives would not impact healthcare facilities.

The No-Build Alternative and the build alternatives would not impact trash collection. Route 9 has sufficient shoulder width to allow trash trucks to operate on the shoulder of the road and vehicles to operate in the travel lane.

Exhibit 3.28 - *Community Facilities and Important Features*



3.5.1.6 Recreation Lands

Part of Maine's Interconnected Trail System (ITS) for snowmobiles crosses through Brewer and Holden (exhibit 3.28)(Maine Snowmobile Association, 2008).

The No-Build Alternative would not impact snowmobile trails.

The build alternatives would cross snowmobile trails maintained by the Eastern Maine Snowmobile Association (MSA) in three to six locations. Alternative 2B-2/the Preferred Alternative would have the least impacts to snowmobile trails by crossing the trails three times, Alternative 5A2B-2 would cross them six times, and Alternative 5B2B-2 would cross them five times. During final design of the selected alternative, MaineDOT would work to maintain the integrity of the existing snowmobile trail system.

3.5.2 Social and Economic Environment

3.5.2.1 Employment and Industry Trends

Construction of one of the build alternatives would create direct, indirect, and induced employment. Direct employment includes workers employed at the highway construction site. Indirect employment includes off-site construction workers (e.g., administrative and clerical) and workers in construction supply industries (e.g., steel and cements products). Induced employment includes workers supported throughout the economy when highway construction workers spend their wages (FHWA, 2008).

The FHWA estimates that for every $1 million in highway infrastructure investment, approximately 28 full-time equivalent jobs are created. These jobs include approximately nine direct jobs, five indirect jobs, and 14 induced jobs (New England Council, 2008). This employment increase represents the total number of jobs created; although these jobs would not be created necessarily in Penobscot County, it is likely that a small increase in employment at the local and county levels would result.

Construction of the build alternatives would cost between $61 million and $81 million, creating approximately 1,700-2,300 full-time equivalent jobs.

The construction of the build alternatives would improve the viability of public and private investments in the Ports of Eastport, Searsport and Bucksport through improved connectivity to the interstate system.

3.5.2.2 Retail Businesses

The No-Build Alternative would adversely impact retail businesses along Route 1A. Traffic congestion, including travel-time delays and difficulty in left-turning movements, adversely affects customers' ability to access and exit businesses along Route 1A. Over time,

as congestion worsens, customers may avoid patronizing some businesses along Route 1A.

Although motorists could continue to use the existing roads and travel patterns, the build alternatives would provide an opportunity or choice for travelers to bypass businesses along Route 1A in Holden and Route 9 in Eddington, thereby potentially reducing impulse purchases.

A literature review summarizing the effects of bypasses on communities was compiled. The reviewed research included studies of more than 270 bypassed communities with varying size, demographic composition, and economic characteristics. It was conducted in 1996 by the National Cooperative Highway Research Program (NCHRP), University of Kansas, Washington State University, University of Texas at Austin, and both the Wisconsin and Iowa Departments of Transportation. Data collected ranged from interviews concerning local opinions to origin/destination surveys to statistical analyses and economic impact modeling. The studies summarized in the literature review found that the majority of bypassed towns do not suffer adverse economic impacts from a bypass. According to the studies, a bypass can cause negative impacts to traveler-oriented businesses in a community, but the probable likelihood and severity of these negative impacts differed among studies. More recent studies indicate similar findings (Babcock and Davalos, 2004).

A bypass can result in decreased business for some local businesses, particularly traveler-oriented businesses in communities with populations of fewer than 1,000 people. However, adverse effects do not occur in most traveler-oriented businesses. Sales at traffic-serving businesses along the bypassed route declined in less than 30 percent of cases studied (Buffington et al., 1996).

In 64 percent of cases studied by the NCHRP, overall business activity grows more rapidly where bypasses have been constructed than in comparable "control" communities that are not bypassed (Buffington et al., 1996). Some of this growth may be a reason for construction of the bypass rather than an effect of the bypass.

The Oklahoma DOT (2001) assessed the impact of bypasses on small Oklahoma towns located along U.S. Highway 70. Much of the study was devoted to the development of models to analyze the impact of bypasses; the application of the model to Oklahoma towns with bypasses was limited. The authors concluded that the bypasses did not have a statistically significant impact on the sales-tax base in the affected towns (Rogers and Marshment, 2001).

In nearly all of the communities studied by the NCHRP, the amount of land in commercial or industrial use increased along existing routes (i.e., in 93 of

98 cases) (Buffington et al., 1996). Land values were found to increase along the original route in 47 of the 50 cases studied by the NCHRP; the rates of decline were no greater than 2.4 percent for the remaining three cases (Buffington et al., 1996).

According to the University of Texas at Austin study, negative impacts to traveler-oriented industry sectors begin when certain critical values of traffic reduction are reached: 31 percent for retail sales, 26 percent for eating and drinking places, and 43 percent for service industries. Gasoline service stations are negatively impacted regardless of the level of traffic loss (a finding qualitatively supported in the majority of studies).

The Iowa DOT, Wisconsin DOT, and Washington State University also highlighted the beneficial impact of reduced traffic congestion on a bypassed route. The Iowa DOT found that due to the decrease in through traffic, traffic congestion, and crash rates along the bypassed route, the bypassed business district becomes a more comfortable and safer place to shop. The Wisconsin DOT found that bypasses improved overall accessibility to and from the bypassed communities. The Washington State University and University of Kansas found that bypass routes that improve access to major trading centers may increase economic development opportunities for small towns and increase basic industries present. Growth in basic industry has an indirect benefit on local retail sales and service industries.

Several studies found that signage may reduce the negative impact of a bypass to businesses. The University of Texas Center for Transportation Research states that signs are a simple but potentially effective technique for minimizing negative impacts of a bypass on existing community businesses. The North Carolina Division of Community Assistance similarly noted in a 1991 report that adequate signage is important for minimizing negative impacts of a bypass (North Carolina Division of Community Assistance, 1991). Signage that informs through-travelers of a town's location, as well as businesses and points of interest, can increase the likelihood that travelers would stop.

The build alternatives would have a slight impact on retail businesses. The reduction of traffic along Routes 1A and 9 could cause a small decrease in sales and revenue for the commercial and retail businesses proportionate to the amount of long-distance through-traffic removed from these two highways. Traffic headed to Calais and the Canadian Maritime Provinces, especially truck-freight traffic, would use the build alternatives and bypass Route 1A and a portion of Route 9 in Brewer and Eddington. However, local commuters and tourists headed to destinations such as Acadia National Park would continue to use Route 1A, thereby providing sales and revenue opportunities for businesses. Convenience stores and gasoline service stations along Route 1A could experience a slight decrease in sales as

a result of less through-traffic, but this decrease is not projected to substantially impact sales or revenue.

The studies summarized in the literature review found that the majority of bypassed towns do not suffer adverse impacts. Holden and Eddington can be defined as medium-sized communities (i.e., 2,000 to 2,500 people) and Brewer can be defined as a larger community (i.e., more than 5,000 people). Results of the literature review indicate that traffic on the original route (bypassed) was greater than traffic on the bypass for medium and larger communities, which supports the conclusion that traveler- and traffic-oriented businesses along Routes 1A and 9 in Brewer and Eddington would experience few adverse impacts (i.e., loss of sales) from the build alternatives. Results of the literature review also indicate that the majority of retail businesses had not moved from their pre-bypass locations, which suggests that most of the retail businesses along Routes 1A and 9 likely would not relocate.

The removal of a substantial portion of heavy-truck traffic and other through-traffic along Route 1A and a portion of Route 9 in Brewer and Eddington would improve access safety and reduce traffic congestion for customers of businesses along these two highways.

3.6 Coastal Zone Management Act and Probable Consistency Determination

The I-395/Route 9 Transportation Study is a major federal action and a portion of the study area is located in Maine's statutory coastal zone. As such, it requires a federal consistency review under the CZMA. Under the CZMA, the Maine Department of Agriculture, Conservation, and Forestry, Division of Geology, Natural Areas and Coastal Resources is delegated the authority to perform the federal consistency review using their enforceable policies of the approved Maine Coastal Program (MCP).

Maine's coastal zone encompasses political jurisdictions that have land along the coast or a tidal waterway, such as a river or bay. The City of Brewer in the study area is included in Maine's coastal zone. The enforceable policies of the MCP are the 29 Maine statutes listed in Appendix A of the Maine Guide to Federal Consistency Review, Maine Coastal Program, 4th Edition – Update 2, January 2013, including the Natural Resource Protection Act, Erosion Control and Sedimentation Law, Maine Rivers Act, and Coastal Management Policies Act http://www.maine.gov/dacf/mcp/downloads/Final_Maine_Guide-Federal_Consistency_Review_4thed_update2.pdf.

The natural resources and features identified and discussed throughout Chapter 3 are considered in the federal consistency review, as are the potential impacts to them.

MaineDOT's coordination with federal, state, regional, and local agencies and interested parties is ongoing for the I-395-Route 9 Transportation Study. The FHWA and MaineDOT have determined the proposed action described in this FEIS is consistent with the CZMA and the consideration and protections it affords to natural resources and features. A full federal consistency review would be provided with the review and issuance of the NRPA permit.

3.7 Relationship between Short-Term Uses of the Human Environment and Enhancement of Long-Term Productivity

The No-Build Alternative would have a short-term impact on the human environment from regular maintenance of I-395 and Routes 1A, 46, and 9. The No-Build Alternative would have a detrimental impact on long-term productivity on the environment of the study area and region because increasing traffic congestion would lead to an increased congestion and decreased mobility for travelers on Routes 1A, 46, and 9 over the long term.

The build alternatives would have a short-term adverse impact on the human environment but would enhance long-term productivity. The proposed transportation improvements are based on the State of Maine's long-term transportation improvement plan and program, which considers the need for present and future connectivity and traffic requirements within the context of present and future land-use development. The build alternatives are generally similar and would have similar short-term impacts. Short-term uses of the human environment would occur during construction. A build alternative would require staging areas, stockpiling areas, roadway construction, and a temporary increase in traffic around construction areas. Additional short-term impacts would be air-quality degradation from increased emissions from construction activities, noise impacts, and socioeconomic and community impacts from construction effects (e.g., roadway obstruction, traffic detours, and construction debris).

Transportation projects consider state and local comprehensive plans, which acknowledge the present and future traffic requirements based on current and future land-use development. The purpose of the build alternatives is to increase long-term productivity. The projected reduction in traffic congestion on Routes 1A, 46, and 9 and the resulting savings in VHT show that the local short-term impacts and use of resources by the proposed

action are consistent with the maintenance and enhancement of long-term productivity in the study area.

The build alternatives would assist in improving the long-term regional connectivity, as well as productivity of DownEast Maine by linking I-395 and Routes 1A, 46, and 9.

3.8 Irreversible and Irretrievable Commitment of Resources

Implementation of the build alternatives entails a commitment of a range of natural, physical, human, and fiscal resources. The commitment of these resources generally would be similar for each of the build alternatives. Land acquired in the construction of a build alternative is considered an irreversible commitment during the period that it is used for a highway facility. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land can be converted to another use. There is no reason to believe that such a conversion would ever be necessary or desirable.

Considerable amounts of fossil fuels, labor, and highway-construction materials (e.g., cement, aggregate, and bituminous material) would be expended during construction. Additionally, labor and natural resources would be used in the fabrication and preparation of construction materials. These materials generally are not retrievable. However, they are not in short supply and their use would not have an adverse effect on continued availability of these resources. Any construction would also require a substantial one-time expenditure of both state and federal funds that are not retrievable.

The commitment of these resources is based on the concept that residents in the immediate area, state, and region would benefit from the improved quality of the transportation system. The benefits would consist of improved mobility, safety and savings in time.

3.9 Indirect Impacts and Cumulative Impacts

3.9.1 Indirect Impacts

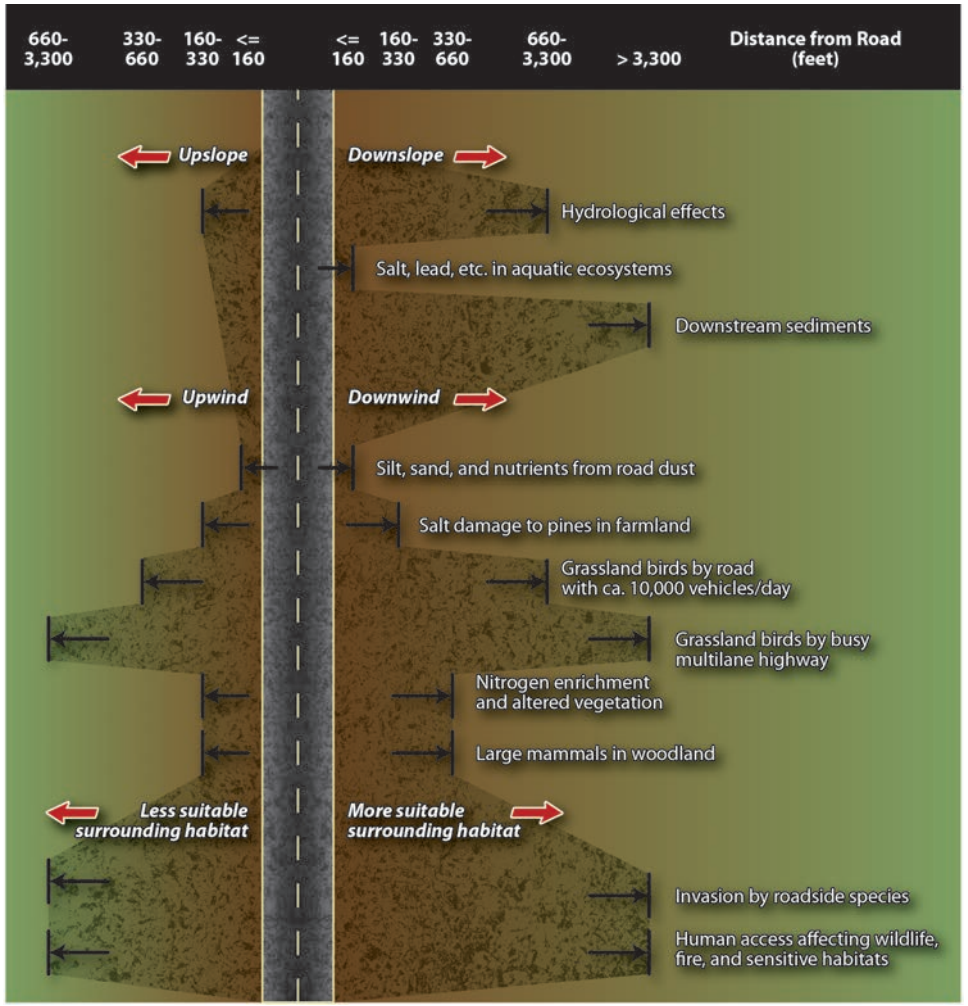
Indirect (or secondary) impacts are defined as reasonably foreseeable future consequences to the environment that are caused by the proposed action but that would occur either in the future (i.e., later in time) or in the vicinity of but not at the exact location as direct impacts associated with the build alternative. In the Council on Environmental Quality regulations, indirect impacts are defined as those that are "… caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect impacts include growth-inducing impacts and other impacts related to induced changes in the pattern of land use, population density or growth rate,

and related impacts on air and water and other natural systems, including ecosystems" (40 CFR 1508.8b).

Traffic noise, visual disturbance, chemicals, and pollutants create indirect impacts particularly to aquatic systems, wildlife, and wildlife habitat (Maine Audubon Society, 2007) (exhibit 3.29). The build alternatives create a road-effect zone in which indirect impacts extend beyond the road and the immediate surrounding areas (exhibit 3.30). Distances of indirect impacts to the natural environment were based on these road-effect zones and the USACE *New England District Compensatory Mitigation Guidance*. Distances used to analyze indirect impacts were based on the minimum distance for that resource (Maine Audubon Society, 2007; USACE, 2010), with the exception of resources with distances of zero to 160, in which 160 was used. Wetlands and vernal-pool impacts were based on the indirect impact distances in the USACE's mitigation guidance.

Soils. Indirect impacts of the build alternatives on soils would vary in scale depending on the preferred alternative. Changes to soil in specific areas would impact soil-dependent species (i.e., vegetation and wildlife). Erosion from cut slopes would affect water quality in surface waters during and after construction. Erosion and sedimentation control measures would be incorporated into the design and implemented

Exhibit 3.29 – *Approximate Distances of Road-Effect Zones*



Source: *Maine Audubon Society, 2007*

Exhibit 3.30 – *Indirect Impacts of Alternatives*

Resources		Distances (feet)		Alternative Indirect Impacts (acres)							
		Upslope/ Upwind	Downslope/ Downwind	No-Build Alternative[4] Upslope	No-Build Alternative[4] Downslope	2B-2/the Preferred Alternative Upslope	2B-2/the Preferred Alternative Downslope	5A2B-2 Upslope	5A2B-2 Downslope	5B2B-2 Upslope	5B2B-2 Downslope
Soils		Erosion could affect water quality in surface waters.									
Surface Waters	Contaminants	160[1]		0.7		1.8		1.5		2.0	
	Sediments	0[1]	3,300[1]	12		0	13	0	18	0	17
Groundwater		No indirect impacts									
Aquatic Habitat and Fisheries		160[1]		0.7		1.8		1.5		2	
Vernal Pools	Area	250[2]		54		17		25		8	
	Percent Forested			25 (46%)		10 (60%)		20 (78%)		7 (83%)	
	Percent Wetland			17 (31%)		8 (47%)		20 (80%)		4 (50%)	
	Percent Upland			37 (69%)		9 (53%)		5 (20%)		4 (50%)	
	Area	750[2]		480		278		395		146	
	Percent Forested			254 (53%)		175 (63%)		233 (59%)		101 (69%)	
	Percent Wetland			101 (21%)		109 (39%)		177 (45%)		49 (34%)	
	Percent Upland			379 (79%)		169 (61%)		218 (55%)		97 (66%)	
Floodplains		0	100[3]	0	1	0	11	0	5	0	15
		160[1]		4		22		8		28	
Wetlands		0	100[3]	0	17	0	31	0	34	0	30
		160[1]		64		66		71		80	
Vegetation	Contaminants	160[1]		164		232		252		202	
	Nitrogen enrichment and altered vegetation	160[1]	330[1]	95	187	88	292	92	312	116	240
	Invasive species	660[1]	3,300[1]	753	3,920	329	4,407	398	4,346	498	2,944
Wildlife	Large mammals	160[1]	330[1]	0	0	74	128	69	173	89	103
	Grassland birds	330[1]	660[1]	0	80	146	250	136	334	178	204
	IWWH	0	100[3]	0	2	0	10	0	19	0	4
Wildlife Habitat		660[1]	3,300[1]	84	2,189	278	1,416	255	1,669	423	893

Notes:

[1]Source: Maine Audubon Society, "Conserving Wildlife On and Around Maine's Roads", 2007.

[2]Source: USACE, New England District, "Compensatory Mitigation Guidance", 2010.

[3] USEPA, 2010

[4] No-Build Alternative consisted of Route 1A from I-395 to Route 46, and Route 46 from Route 1A to Route 9.

during construction in accordance with Section II of the MaineDOT's *Best Management Practices Manual for Erosion and Sedimentation Control* (MaineDOT, 2008a). Redundancy of controls would be included in each watershed that would be impacted to minimize potential control failures that could deliver sediment-laden runoff to streams during and after construction.

Surface Waters. An increase in the potential for sediment loading and roadway contaminants introduced to surface waters exists for the No-Build Alternative and the build alternatives. Impacts from sedimentation caused by construction would be temporary. During final design, a highway drainage system would be designed to minimize the transport of sediments and other particulates to surface waters. Erosion and sedimentation control measures would be incorporated into the design and implemented during construction in accordance with Section II of the MaineDOT's *Best Management Practices Manual for Erosion and Sedimentation Control* (MaineDOT, 2008a) and designed in accordance with the MDEP/MaineDOT Memorandum of Agreement, Stormwater Management, November 14, 2007 and Chapter 500 Rules. Redundancy of controls would be included in each watershed that would be impacted to minimize potential control failures that could deliver sediment-laden runoff to streams.

As part of winter maintenance, anti-icing chemicals with chlorides (i.e., primarily rock salt) are used to combat the effects of snow, sleet, and ice. The use of anti-icing materials for winter maintenance would not impact the availability of potable water supplies. MaineDOT investigates and evaluates snow and ice-control industry standards and updates its salt-priority program to use salt judiciously while providing safe and effective traffic movement. In the unlikely event that a localized issue is observed, MaineDOT would implement corrective actions as mandated by state law (23 MRSA § 652). The project would be designed in compliance with applicable Maine water quality standards and with the requirements of the Section 401 Water Quality Certification.

MaineDOT has collaborated with the Margaret Chase Smith Policy Center at the University of Maine to publish a study entitled MaineDOT's winter maintenance activities: Maine Winter Roads: Salt, Safety, Environment and Cost. The goals identified in the study include: maintain safety while reducing salt and sand use; reduce salt use through improved practices, new materials and equipment, and changes in levels of service; and increase public awareness of winter practices, costs, and environmental impacts. The key findings from the study are:

- Anti-icing practices are being widely adopted by state agencies across the U.S. MaineDOT,

Maine Turnpike Authority and some municipalities have incorporated anti-icing practices.

- Eighteen percent of the State of Maine's public roads are maintained by MaineDOT, one percent by the Maine Turnpike Authority with the remaining eighty one percent being maintained by 488 municipalities and three Indian reservations.
- Using federal guidelines for the costs of injuries and deaths, Maine accident data show a 10 year average cost of $1.5 billion dollars annually.
- In winter months between 1989 and 2008, there was a significant reduction in the number of fatalities on state highways. This reduction does not occur on town roads and state-aid highways. This is consistent with the finding of a statistically significant decrease in fatalities on state highways since MaineDOT's anti-icing policy was implemented. It is unknown whether the anti-icing policy is the cause of the decrease.

Since the mid-1990s MaineDOT has adopted procedures recommended by the FHWA for anti-icing. MaineDOT uses anti-icing chemicals to maintain safer roadways for the traveling public. MaineDOT is continually investigating and evaluating snow and ice control methods, and updating its maintenance program to balance maintaining water quality with providing safer conditions for the public. Early application of salt brine and rock salt are being used on many roads to prevent snow and ice from bonding to the road surface. This anti-icing application reduces the amounts of anti-icing chemicals used. This approach reduces the amount of chlorides and sodium in highway runoff. MaineDOT snow and ice control operations are guided by a policy which classifies the level of service of roadways by priority corridors. Each level of service has a defined cycle of service time, plow route length, and prescribed amount of time to return the road to normal winter driving conditions.

- Priority 1 corridors (26% of total miles maintained by MaineDOT) would be treated and bare pavement provided following a storm as soon as practicable, at most within 3-6 daylight hours.
- For Priority 2 corridors (36% of total miles maintained by MaineDOT) bare pavement would be restored as soon as practicable after Priority 1 corridors, and within 8 daylight hours. Pre-treatment is provided on Priority 1 and 2 corridors to prevent ice from bonding with the road surface.
- Priority 3 corridors (38% of total miles maintained by MaineDOT) are treated within 24 hours, providing one-third bare pavement in the middle of the road as soon as practicable. For Priority 3 corridor sand routes, roads would

be plowed and sand applied, yet the road surface may be snow covered during a storm.

MaineDOT practices pre- and post-construction sampling of potable water supplies to ensure that any impacts from construction are noted and remediated. MaineDOT is required by law to remediate any impacts to potable water supplies from winter maintenance activities. MaineDOT's winter maintenance program is centered on minimizing the use of any anti-icing chemical; however, when necessary for public safety, MaineDOT uses Ice-B-Gone, which was noted by EPA to be a "green" anti-icing material.

Anti-icing salts can impact groundwater in ways similar to surface waters.

Aquatic Habitat and Fisheries. Indirect impacts would result from the disruption of aquatic-organism passage. This may result in the reduction of upstream populations of stream-dependent organisms. Long-term impacts to the fisheries are not likely as long as aquatic-organism passage is maintained and best management practices are used to prevent short- and long-term erosion and sedimentation (MaineDOT, 2008a).

Potential erosion and sedimentation from construction of road-stream crossings would impact water quality and aquatic habitat and fisheries would occur within 160 feet. Erosion and sedimentation control measures would be incorporated into the design and implemented during construction in accordance with Section II of the MaineDOT's *Best Management Practices Manual for Erosion and Sedimentation Control* (MaineDOT, 2008a).

Vernal Pools. Amphibians commonly disperse more than 750 feet from a vernal pool into upland and wetland forested (generally) habitat. The NRPA rules (effective in September 2007) regulate a 250-foot critical habitat area around "significant" vernal pools. Each vernal pool was identified and analyzed with a uniform 250-foot and a 750-foot radius. Land area that would be removed within the 250-foot radius and 750-foot radius was considered an indirect impact. The impacts to vernal pools range from 8 acres to 25 acres for the 250-foot radius and from 146 acres to 278 acres for the 750-foot radius (see exhibit 3.30).

Floodplains and Wetlands. Indirect impacts to floodplains and wetlands would occur at a certain distance from the edge of permanent disturbance (i.e., grading cut-and-fill boundary) necessary to construct the build alternatives. Within this area, changes in the value and/or function of wetlands would be altered due to changes in adjacent land use and topography.

The USACE recommendation for water quality-protection prescribes an effective area width of 100 feet, which provides adequate filtering of runoff to trap sediments and pollutants that affect water quality. The range of area width is tied to adjacent slopes, where for low to moderate slopes, the majority of effective filtering occurs within the first 30 feet.

The USACE recommendation for stabilization protection prescribes an effective area width of 30 to 65 feet. This width is generally adequate to attenuate overland flow and regulate soil moisture-conditions to maintain adequate soil stability.

The build alternatives would indirectly impact between 66 and 80 acres of land within 160 feet of identified wetlands. Indirect impacts to wetlands would consist of changes to hydrology to existing wetlands, sediment input to wetlands adjacent to earthwork, and shading. Shading is most likely to occur where new bridges are constructed. Shading impacts to vegetation can reduce or eliminate wildlife habitat and water-quality functions. Shading can lower water temperature. Wetlands that are not directly filled or excavated but in which their functions have been reduced are also indirect impacts. Habitat functions of wetlands can be indirectly impacted (see section 3.2.2.4).

Vegetation. Vegetation along existing and new highway right-of-ways tends to be disturbed and exhibit a higher percentage of exotic or invasive plant species. Roadways often introduce invasive plant species (e.g., purple loosestrife and Eurasian milfoil) that can degrade wildlife habitat. The build alternatives have the potential to introduce invasive species in areas previously vegetated with native species as well as nitrogen enrichment and altered vegetation. The build alternatives have the potential to introduce roadway contaminants (e.g., salt and lead) to vegetation. The build alternatives have an indirect impact of cover type conversion along the right-of-way in excess of that needed for the roadway footprint. The operation of traffic on the build alternatives and maintenance of the right-of-way have the potential to alter the vegetation communities adjacent to it.

Wildlife and Wildlife Habitat. The types and number of animals killed by vehicles are related to road width, traffic volume, vehicle speed, and location of the road in terms of wildlife habitat, particularly travel corridors or migration habitat for particular species. Amphibians and reptiles have the highest mortality rates on two-lane roads with low to moderate amounts of traffic, whereas large and midsize mammals are more susceptible to collisions on two-lane, high-speed roads. Birds and smaller mammals are more at risk from collisions on wider, high-speed highways. In addition, roads through and adjacent to wetlands, ponds, and other waterways have some of the highest road-kill rates. Although wildlife–vehicle

collisions do not put the health of large-mammal populations (e.g., deer and moose) at risk, these collisions pose a hazard for motorists (Maine Audubon Society, 2007).

Road salt, particularly sodium chloride, is toxic to many species of plants, fish, and other aquatic organisms. In addition, concentrations of salt along roadsides attract deer and moose, thereby increasing the risk of collisions with vehicles.

Other indirect impacts are wildlife avoidance of roads, which can indirectly affect dispersal and breeding behavior and noise disturbance for wildlife along the roads. Traffic noise can interfere with the ability of songbirds to hear mating calls and recognize warning calls. Because noise travels farther in open habitats, a decrease in population density adjacent to roads is greatest for grassland birds, less for birds in deciduous woods, and least for birds in coniferous woods. Researchers found that negative impacts on the density and nesting success of grassland birds extend more than a quarter-mile from a rural road and more than a half-mile from a highly traveled, four-lane highway (Maine Audubon Society, 2007).

Indirect impacts to wildlife habitat from the build alternatives are the creation of smaller undeveloped habitat blocks, which have value as roosting, foraging, or cover habitat for some species tolerant of disturbance (e.g., deer, raccoon, and certain birds).

Roads in or through a natural area result in the "edge effect," thereby reducing its value for area-sensitive species. Where roads are built, habitat is lost or changed. In addition, roads increase human access to natural areas, resulting in increased human disturbance (Maine Audubon Society, 2007).

Chemicals introduced along roadways from vehicles, anti-icing salts, road-surface wear, and herbicide and pesticide use can pollute wildlife habitat by providing a source of heavy metals, salt, organic pollutants, and excessive nutrients. Such water and soil pollution poses a lethal risk to wildlife that depends on the resources. Contamination of soil, plants, and animals extends as much as 66 feet from a road, and elevated levels of heavy metals often extend 650 feet or more from the road, occurring in greater concentrations along roads with high traffic volume (Maine Audubon Society, 2007).

Land Use. The No-Build Alternative would result in continued adverse impacts to land use. Over time, traffic volumes along Routes 1A, 9, and 46 through the study area would increase, resulting in longer delays and more congestion. As traffic volumes increase, more local traffic would divert to local roads seeking alternate routes to bypass the traffic congestion in and approaching the study area. Increasing traffic volumes on local roads would lead to more congestion and longer delays for motorists, as well as a general decrease in the quality of life. The increased congestion and delay would further exacerbate

existing conditions that make it difficult for businesses to thrive and residents to travel unimpeded.

3.9.2 Induced Development or Growth

Another form of indirect impacts – induced development or growth – can be associated with the consequences of land-use development that would be indirectly supported by changes in local access or mobility. Induced development would include a variety of alterations such as changes in land use, economic vitality, property value, and population density. The potential for indirect impacts to occur is determined in part by local land-use and development-planning objectives and the physical location of a proposed action.

The build alternatives would have controlled access, without access to local roads, except for the interchange at Route 1A near the Brewer–Holden boundary, and Route 9 east of Route 178 (Chapter 2).

Because the build alternatives are intended to serve long-distance through- and regional-traffic, development induced by them likely would be traveler-oriented businesses (e.g., commercial uses such as gasoline stations, motels, restaurants, and convenience stores) within approximately a half-mile of the interchanges and intersections. The farther removed in distance and time from the interchange and intersection, the less induced growth effects can be expected. Oregon DOT's *Guidebook for Evaluating the Indirect Land Use and Growth Impacts of Highway Improvements* recommends studying a half-mile radius surrounding a highway improvement as the primary area of induced growth (Oregon DOT, 2001).

The affected area of induced growth is limited because the build alternatives would have controlled access, the population growth rate in the study area is low, and local zoning precludes intensive development. The projected population for 2020 is expected to experience minor changes from existing levels: Brewer is projected to experience a decrease in population of about 0.8 percent; Holden is projected to experience an increase in population of about 8 percent; and Eddington is projected to experience an increase in population of about 5.7 percent by 2020. Most of the land in the study area is zoned agricultural and rural residential limiting development. Development would occur in the study area, whether or not the build alternatives are constructed.

Assuming that induced development would occur within this distance, a worst-case analysis of land use was conducted for areas surrounding the proposed interchanges and intersection.

The purpose of a general business zone in Brewer is to provide for various types of commercial uses, including highway-oriented uses. This zone is intended to be the location of the community's major shopping facilities, including shopping centers. The purpose of the general business zone in Holden is to provide locations for business activities requiring large-scale

buildings, large outdoor display and wholesale areas, and extensive site development to provide employment and services beyond the immediate neighborhood or community. Land adjacent to the I-395 interchange with Route 1A used by Alternative 2B-2/the Preferred Alternative and Alternative 5B2B-2 is zoned general business and rural by the city of Brewer and the town of Holden.

Land adjacent to the proposed interchange between Alternative 5A2B-2 and Route 1A is zoned rural and general commercial by the city of Brewer and the town of Holden.

The town of Eddington's commercial zone is intended primarily for commercial uses to which the public requires easy and frequent access. The residential B zone is established as a zone for residential use of existing housing and new multifamily housing. The agricultural zone is intended for the types of uses that traditionally predominate in rural Maine: forestry and farming, farm residences, and a scattering of varied uses consistent with a generally open, non-intensive pattern of land use.

Land adjacent to the proposed intersection of Route 9 and the build alternatives is zoned commercial and residential B by the town of Eddington.

A build-out analysis was performed using the following method:

1. The geographic boundary for the analysis was an area within a half-mile of the interchange with Route 1A and the intersection with Route 9.
2. The lots that fall within that area were identified.
3. Lots that would not be built on (e.g., because they are too small or are wetlands) were removed from the analysis.
4. Zoning for each lot was identified.
5. The total number of structures permitted by the zoning ordinance was determined; existing structures were subtracted and the number of new structures were determined.
6. The lots, their land uses, and the number of acres most susceptible to secondary impacts from induced development were determined.
7. Only the parcels with road frontage were projected to be subdivided and built out.

Based on the analysis of the interchanges and intersection, each interchange could impact between 14 and 19 acres of forest and grassland areas in the general business zone in Brewer and Holden (exhibit 3.31). The number of new businesses is unknown because the purpose of zoning is to provide for various commercial uses such as shopping facilities with an unknown number of businesses. The intersection could result in 16 new residences within a half-mile.

Alternative 2B-2/the Preferred Alternative and Alternative 5B2B-2 could induce development that may impact wetlands; up to 2 acres of wetlands (1 acre at the interchange with I-395 and 1 acre at the intersection with Route 9) could be impacted. Alternative 5A2B-2 could induce development that may impact up to 1 acre of wetlands (at the intersection with Route 9).

If induced development in the areas with the new interchanges and intersection was primarily commercial and traveler-oriented businesses, it would be generally consistent with existing land uses and zoning. The impacts to existing residential uses from induced development (if the existing uses are not converted to commercial or other use) would consist of an increase in the suburban character of the area from increased development, with the associated aesthetic impacts on neighboring residents.

Exhibit 3.31 - *Potential Induced Development by Alternative within a Half- Mile of Interchanges and Intersections*

	Interchange at Route 1A	Intersection at Route 9 between Chemo Pond and Davis Roads
No-Build		
2B-2/the Preferred Alternative	Permitted uses within general business district (Approximately 19 acres forested and grassland)	16 Residences (16 acres forested and grassland)
5A2B-2	Permitted uses within general business district (Approximately 14 acres forested and grassland)	16 Residences (16 acres forested and grassland)
5B2B-2	Permitted uses within general business district (Approximately 19 acres forested and grassland)	16 Residences (16 acres forested and grassland)

Commercial and residential development would occur with the No-Build Alternative; however, it could occur more quickly with the build alternatives because of the strong connection between transportation and land use. Because commercial and residential development would occur without implementation of a build alternative, it would not be considered a secondary impact solely related to the build alternatives. Other dynamic regional economic and development trends would have a more important influence on the establishment of those uses than construction of the build alternatives. The city of Brewer and the towns of Holden and Eddington would control new development in those areas through their planning and approval processes. Development would be guided by local comprehensive plans and zoning ordinances.

3.9.3 Cumulative Impacts

Consideration of cumulative effects entails an assessment of the total effect on a resource or ecosystem from past, present, and future actions that have altered the quantity, quality, or context of those resources within a broad geographic scope. Under the Council on Environmental Quality regulations, cumulative

effects are defined as "…the impact on the environment which results from the incremental impact of the actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). The cumulative-effects analysis considers the aggregate effects of direct and indirect impacts – from federal, non-federal, public, or private actions – on the quality or quantity of a resource.

The intent of the cumulative-effects analysis is to determine the magnitude and significance of cumulative effects, both beneficial and adverse, and to determine the contribution of the proposed action to those aggregate effects. Contributions to cumulative effects from the build alternatives on resources is limited to those that are substantially impacted. Therefore, cumulative effects on the following resources were analyzed:

- surface waters and floodplains
- wetlands and aquatic habitat
- vegetation and wildlife

The cumulative impact of the proposed action to climate change was considered. Because the build alternatives would result in a slight reduction of CO_2 emissions, no further analysis was conducted.

The study area used to analyze cumulative effects was defined as the areas where past, present, or future actions would impact surface waters, floodplains, wetlands, and aquatic habitat. This area encompasses most of the city of Brewer and the towns of Holden and Eddington and includes small portions of the towns of Clifton, Dedham, Bradley, and Orrington. The study area used for the analysis of cumulative effects for these resources consisted of approximately 73 square miles (exhibit 3.32).

The year 1987 was used as the limit for the timeframe of past actions considered. It was chosen because the extension of I-395 from I-95 to Route 1A was completed and opened to traffic in late 1986. The I-395 extension influenced the study area by providing easier regional access to Brewer, Holden, and Eddington. The 2035 design year of the build alternatives was used as the future limit for the cumulative-effects discussion.

The past, present, and reasonably foreseeable future actions in the study area were identified and the environmental consequences of these actions on the resources were analyzed (exhibit 3.33). Reasonably foreseeable future actions were limited to those for which a plan or study was completed or funding has been committed, and anticipated environmental impacts can be at least qualitatively characterized. Other actions that would occur would be the continuing practice of agriculture and logging, and while these

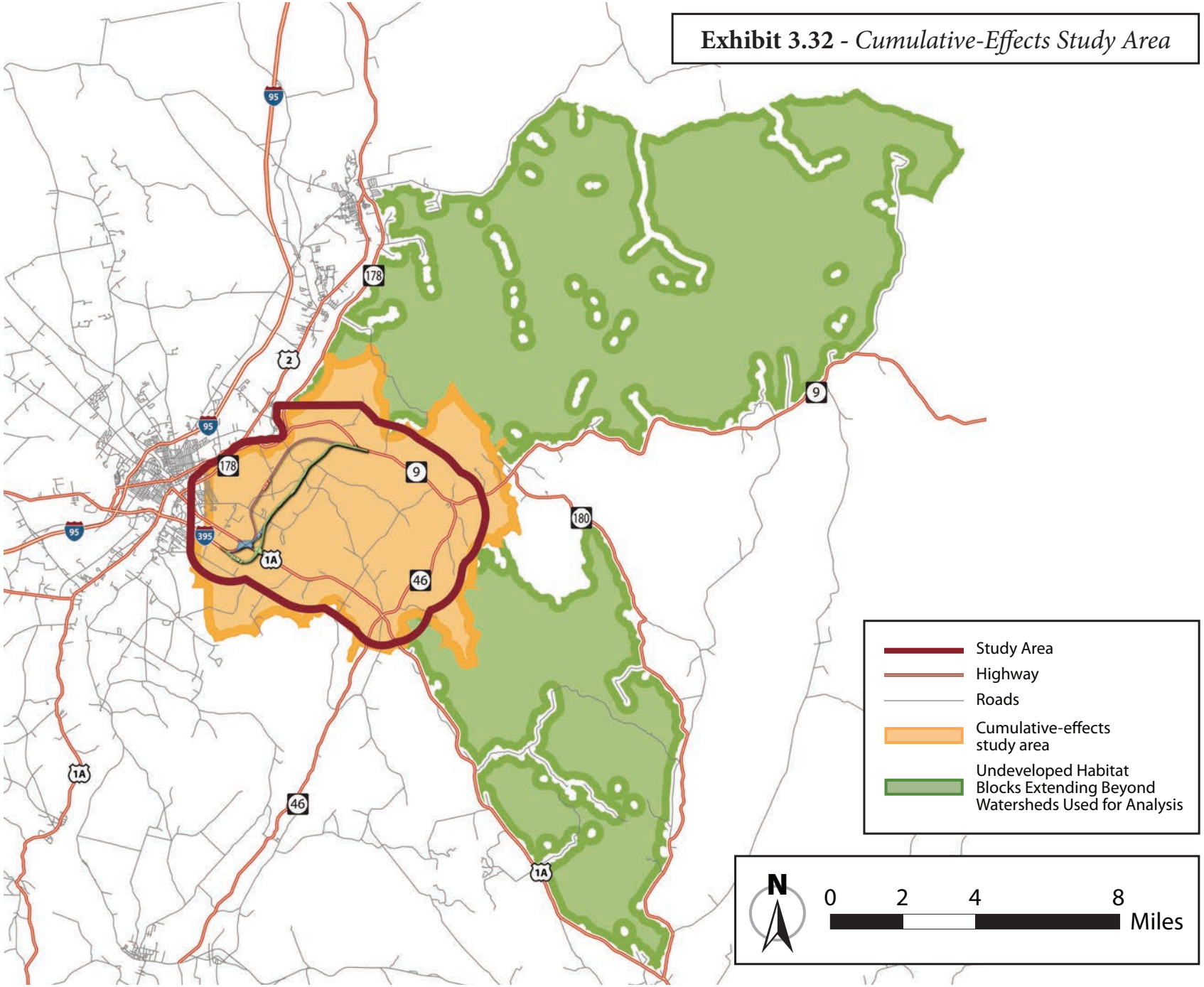


Exhibit 3.32 - Cumulative-Effects Study Area
95
178
2
9
180
395
1A
46
Study Area
Highway
Roads
Cumulative-effects study area
Undeveloped Habitat Blocks Extending Beyond Watersheds Used for Analysis
N
0
2
4
8
Miles

Exhibit 3.33 - *Cumulative Impacts*

Past, Present, and Reasonably Foreseeable Actions	Direct Impacts				
	Surface Waters	Floodplains (acres)	Wetlands (acres)	Vegetation	Wildlife Habitat (acres)
Past Actions 1987-2010					
Extension of I-395 from Main Street, Bangor, to Route 1A, Brewer (November 1986)	200-foot impact to unnamed tributary to Felts Brook		Unknown	Conversion of 72 acres of rural land to transportation use	Unknown
Holden: Continued development of DeBeck Business Park (approximately 44-acre site)	Increase in impervious surfaces affecting stormwater runoff	5	3	Conversion of 6 acres of forests/ vegetation land to commercial use	7
Brewer: Walmart Supercenter off of outer Wilson Street (approximately 3.6-acre site)			3		
Brewer: Construction of parallel service road along Wilson Street (Route 1A)			Unknown	Conversion of 10 acres of urban/ suburban land to transportation	
Brewer: Penobscot Landing Trail preliminary engineering and right-of-way acquisition					
Brewer: Beech Ridge - approximately 4 residential lots (approximately 6.8-acre site)	Increase in impervious surfaces affecting stormwater runoff			Conversion of 8 acres of forests/ vegetation land to residential use	
Brewer: Nature's Way - approximately 15 residential lots (approximately 93-acre site)	Increase in impervious surfaces affecting stormwater runoff; 332-foot impact to Eaton Brook and an unnamed tributary to Eaton Brook	3	11	Conversion of 31 acres of forests/ vegetation land to residential use	
Brewer: Timber Ridge - approximately 19 residential lots (approximately 72.6-acre site)	Increase in impervious surfaces affecting stormwater runoff		2	Conversion of 19 acres of forests/ vegetation land to residential use	
Brewer: Felts Brook Green Phase I - approximately 5 residential lots (approximately 6.5-acre site)	Increase in impervious surfaces affecting stormwater runoff; 218-foot impact to Felts Brook	1	1	Unknown	
Brewer: Lowe's Home and Garden Center on Wilson Street (approximately 4-acre site)	Increase in impervious surfaces affecting stormwater runoff			Conversion of 5 acres of forests/ vegetation land to commercial use	16
Brewer: Diringo Drive Office Park Phase I - approximately 25.4-acre site.			20	Conversion of 23 acres of forests/ vegetation land to commercial use	
Brewer/Holden: Bangor Hydro-electric Company Northeast Reliability Interconnect Electric Transmission Upgrade		1	8	Conversion of 18 acres of forests/ vegetation land to utility use	21

Exhibit 3.33 – *Cumulative Impacts (continued)*

Past, Present, and Reasonably Foreseeable Actions	Direct Impacts				
	Surface Waters	Floodplains (acres)	Wetlands (acres)	Vegetation	Wildlife Habitat (acres)
Holden: Barrett Lane - approximately 9 residential lots (approximately 54.5-acre site)	Increase in impervious surfaces affecting stormwater runoff; 418-foot impact to unnamed tributary to Eaton Brook	2	19	Conversion of 54 acres of forests/ vegetation land to residential use	
Holden: Brookfield Estates Phase I - approximately 16 residential lots (approximately 44.6-acre site)	Increase in impervious surfaces affecting stormwater runoff		4	Conversion of 42 acres of forests/ vegetation land to residential use	
Holden: Gilmore Estates - approximately 6 residential lots (approximately 66-acre site)				Conversion of 43 acres of forests/ vegetation land to residential use	
Eddington: Rae Lorraine - approximately 5 residential lots (approximately 27.3-acre site)			1	Conversion of 23 acres of forests/ vegetation land to residential use	
Eddington: Martin Lane - approximately 5 residential lots (approximately 10.5-acre site)				Conversion of 7 acres of forests/ vegetation land to residential use	
Eddington: Fifield Estates - approximately 8 residential lots (approximately 33.7-acre site)			20	Conversion of 32 acres of forests/ vegetation land to residential use	
Holden: Natural Gas Compressor Station			Unknown	Unknown	
Present Actions 2011-2015					
Brewer: Brewer Professional Center - commercial and professional development (approximately 64.5 acres).	Increase in impervious surfaces affecting stormwater runoff		2	Conversion of 21 acres of forests/ vegetation land to commercial use	
Brewer: Diringo Drive Office Park Phase II - commercial and professional development (Approximately 31.6 acres).			30	Conversion of 31 acres of forests/ vegetation land to commercial use	
Reasonably Foreseeable Actions 2015-2035					
I-395 Connector - 2-Lane Highway: (2B-2/the Preferred Alternative, 5A2B-2, 5B2B-2)	Increase in impervious surfaces affecting stormwater runoff; 222- to 567-foot impact to surface water	2-11	26-32	Conversion of 14-20 acres of agricultural, 17-36 acres of grassland, and 71-85 acres of forests to transportation use	512-880
Improve the most heavily congested section of Route 1A from I-395 to Route 46 and the Intersection of Routes 46 and 9					

Exhibit 3.33 – *Cumulative Impacts (continued)*

Past, Present, and Reasonably Foreseeable Actions	Direct Impacts				
	Surface Waters	Floodplains (acres)	Wetlands (acres)	Vegetation	Wildlife Habitat (acres)
Brewer: Feltsbrook Green Phase II (approximately 38.2-acre site)	Increase in impervious surfaces affecting stormwater runoff; 1,589-foot impact to Eaton Brook and an unnamed tributary to Eaton Brook	3	2	Conversion of 7 acres of forests/ vegetation land to residential use	
Holden: Brookfield Estates Phase II (approximately 49.3-acre site)	Increase in impervious surfaces affecting stormwater runoff; 1,831-foot impact to unnamed tributary to Felts Brook	1	30	Conversion of 48 acres of forests/ vegetation land to residential use	
Cumulative Effects for 2B-2/the Preferred Alternative	***4,900 feet of streams; unknown impacts from stormwater runoff***	***26***	***182***	***600 acres to forests/vegetation***	***873***
Cumulative Effects for 5A2B-2	***4,900 feet of streams; unknown impacts from stormwater runoff***	***18***	***187***	***640 acres to forests/vegetation***	***924***
Cumulative Effects for 5B2B-2	***4,900 feet of streams; unknown impacts from stormwater runoff***	***27***	***188***	***600 acres to forests/vegetation***	***556***

impacts were not qualitatively characterized, they were acknowledged. Many of the future cumulative impacts on resources within the study area are projected to be generated by future residential and commercial development that cannot be fully characterized.

Potential cumulative impacts to those resources analyzed, with and without one of the build alternatives, would generally follow existing patterns and development trends. Residential and commercial development likely would continue to occur within the region at the same rate and with the same characteristics with either the No-Build Alternative or one of the build alternatives, and it would serve as the major source of land-use conversion and contribution to cumulative resource effects. Few other reasonably foreseeable future actions were identified that would contribute to the cumulative impact of the resources analyzed.

Within the study area, population and housing are projected to grow at a slow rate from 2010 to 2020 (Maine State Planning Office, 2003; 2008a; 2008b). The most substantial changes are projected to occur in Holden (which has the highest growth rate in the study area of eight percent and the housing growth rate of 5.4 percent) and in Eddington (an increase of 5.7 percent in population and 8.8 percent in housing). Brewer is projected to experience a decrease of about 0.8 percent (approximately 71 fewer people) by 2020. These projections demonstrate the current land use trends in the study area, which show residents and housing moving from the more urban areas

in Brewer and other parts of Bangor to adjacent suburban and rural areas. Although the number of housing units is slowly increasing through 2015 with an overall growth rate of 5.1 percent, overall population growth in the study area through 2020 remains generally flat at 2.4 percent, demonstrating movement of the existing population within the study area rather than a large influx of new residents. The trend is supported by 2020 projections for the city of Bangor (the major population center in the region), which show housing-unit growth of 2.3 percent but a decrease in population equal to approximately -15.5 percent.

According to Maine's Beginning with Habitat program, unfragmented habitat blocks are defined as areas that encompass 100 acres and are at least 500 feet from development and improved roads (Beginning with Habitat, 2008). The area analyzed for vegetation and habitat encompasses approximately 296 square miles because it includes the unfragmented habitat blocks in their entirety that extend beyond the study area. The cumulative impacts of the build alternatives on unfragmented habitat blocks are between 550 and 925 acres.

Surface Waters and Floodplains. Surface waters have been and would continue to be influenced by land use and development. The cumulative effect of the past, present, and reasonably foreseeable future impacts consists of an increase in impervious surfaces. Cumulative impacts on surface waters and floodplains would be largely influenced during the next 20 years by additional roadway and bridge construction. With the exception of construction of a build alternative, no new major roads are anticipated and local road and bridge projects are not expected to have a substantial effect on surface waters and floodplains. The build alternatives would add impervious surface to the study area. Residential and commercial development would have a continued effect on surface waters by increasing stormwater run-off as more impervious surfaces are created. Increased stormwater runoff would cause the water level of nearby streams to rise more quickly during storms.

The build alternatives would directly impact between approximately 200 feet of stream and two to 11 acres of floodplains. The cumulative effects of the past, present, and reasonably foreseeable future actions would impact approximately 4,900 feet of stream and 18 to 27 acres of floodplains. The cumulative effect of the past, present, and reasonably foreseeable future impacts to stormwater runoff result from an estimated 695-acre increase in impervious surfaces. The increase in surface water quantity would be accompanied by a decrease in surface water quality from non-point source pollutants (e.g., oil from automobiles) that are carried by stormwater run-off into receiving streams and the Penobscot River.

Buffers improve water quality by helping to filter pollutants in run-off both during and after construction.

Wetlands and Aquatic Habitat. Cumulative effects on wetlands and aquatic habitat are likely to continue as development occurs; however, important aquatic habitat would remain protected through conservation laws. The build alternatives would directly impact between 26 and 32 acres of wetlands. The cumulative effects of the past, present, and reasonably foreseeable future impacts to wetlands would be approximately 180 to 188 acres.

Future wetlands loss would be limited by state and federal laws protecting those resources through mandatory mitigation for both public and private initiatives. Important aquatic habitat is projected to remain protected through conservation laws; however, changes in the upstream watershed from increased suburban development would continue to affect water quality and habitat in the study-area water environments.

Vegetation and Wildlife Habitat. Vegetation and wildlife habitat would continue to decrease and habitat would become more fragmented as more land is converted from forest and grasslands to residential and commercial uses. The build alternatives would directly impact between 71 and 85 acres of forests. The cumulative effect of the past, present, and reasonably foreseeable future impacts to forested areas would be approximately 556 to 924 acres.

The decision to pursue residential and commercial development is influenced most by local and regional development trends and prevailing economic conditions. Therefore, the difference in the cumulative-effects contribution of the No-Build Alternative and one of the build alternatives is limited to the difference in direct impacts associated with each build alternative.

The incremental impacts of any of the build alternatives are not expected to have a substantial effect on surface waters, floodplains, wetlands, vegetation, and wildlife habitat.

3.10 Mitigation and Commitments

This section describes the mitigation measures and commitments being considered in support of the development of Alternative 2B-2/the Preferred Alternative.

3.10.1 Mitigation

MaineDOT would mitigate the impacts to streams and vernal pools from Alternative 2B-2/Preferred Alternative. MaineDOT would coordinate with the federal and state regulatory and resource agencies during the development of the mitigation plan for impacts to streams, wetlands, vernal pools, and other natural resources.

Prospective compensatory mitigation opportunities for the unavoidable wetlands impacts from the build

alternatives were identified within the Penobscot River and neighboring sub-watersheds. The build alternatives are largely on new alignments and no on-site opportunities exist to restore wetlands previously filled by highway construction. Opportunities were identified primarily through the use of existing reports, GIS information, and field data. Initial contacts were made with representatives from the MDIFW, MDOC, MDEP, Maine Forest Service, Maine State Planning Office, Penobscot River Restoration Trust, the Nature Conservancy, and the Forest Society of Maine to learn about local conservation initiatives that could provide suitable mitigation. These opportunities were specific restoration sites and broader areas identified as local or regional conservation priorities. The mitigation opportunities described here are conceptual and additional information would be prepared.

Felts Brook Parcel. This 120-acre site is located in Brewer and was acquired by the MaineDOT in 1982 as part of the I-395 construction project. The site consists of agricultural fields and wetlands. The mitigation potential consists of enhancement through planting of riparian vegetation, some potential creation opportunities, and preservation.

Lower Penobscot River Stream Barrier Removal. This study was conducted by the Maine Forest Service in cooperation with the USFWS and Gulf of Maine Coastal Program. There are 287 crossings (the majority are culverts) surveyed in the Lower Penobscot drainage that have been identified as aquatic-organism barriers primarily due to structural deficiencies. Crossings surveyed consist of a variety of problems: inlet blockages, inlet drops, perched inlets and outlets, shallow water depths, high velocities, and lack of natural substrates. The most prevalent problem is perched outlets at 204 crossings. There are numerous opportunities identified in this study to begin the process of passage restoration using mitigation funds from the I-395/Route 9 transportation study.

Sears Island Wetland Bank. This bank site consists of primarily preservation credit with two areas having restoration and creation opportunities. The restoration opportunity would involve a half-acre fill removal and replanting. The creation opportunity would be a two-acre forested wetland that consisting of grading, drainage, and planting.

Maine Natural Resources Conservation Fund. This is an MDEP program that provides permit applicants the option to pay a square-foot price for wetlands impacts that exceed regulatory thresholds. This program may be used to augment a compensation package that has inadequate mitigation for loss of specific wetlands functions and values.

Lower Penobscot Forest Project. The Lower Penobscot Forest Project is a partnership between the Nature Conservancy and the Forest Society of Maine that would conserve more than 42,000 acres. This project would be the window to a broader view of conservation in the region — a view that connects the wetlands and woods of Central Maine to the coastal forests and waters of Penobscot Bay and Machias Bay. The streams of the Lower Penobscot Forests drain into Sunkhaze Meadows National Wildlife Refuge — founded in the late 1980s when the Nature Conservancy purchased more than 10,000 acres of raised dome peat lands to protect them from peat mining. The Conservancy would purchase a conservation easement on more than 12,000 acres along the southeastern border of Sunkhaze to establish an ecological reserve. The reserve would border MDOC lands and the Lower Penobscot Forest Easement, which would be conserved by an easement purchased by the Conservancy and transferred to the state. To the south, the remote ponds and red-pine woodlands of the Amherst Tract would be conserved by fee and easement purchases by the Forest Society of Maine. To the northeast, Lower Penobscot forest lands neighbor those protected by the state and the Conservancy in the Upper Machias River Watershed. The Nature Conservancy is raising public and private funds for this project. Placing these forests under conservation is part of a larger vision of conserved lands stretching from Bangor to Acadia National Park. There are opportunities to assist the Nature Conservancy and the Forest Society of Maine with land acquisition and/or easements.

Holden Conservation Parcels. The Holden Land Trust (HLT) is looking to preserve a large undeveloped land holding under the name of Wrentham Woods. This land consists of two adjacent parcels totaling 1,628 acres in the heart of Holden. This large tract of land was recently for sale and is under real and imminent development threat due to its proximity to the Bangor-Brewer area. The property is surrounded by development.

The Wrentham Woods has exceptional value and significance to the region as it is one of the largest undivided tracts in the greater Bangor area. It is well situated locally in the region so it can be reached within a twenty minute drive of over 50,000 Mainers. It is strategically ready for easy trail connectivity between Holden and the surrounding communities. The property has good access from Mann Hill Road, Eastern Avenue, from snowmobile trails and from the abutting inactive railroad corridor. Wrentham Woods contains open space, forests, an extensive ridge with views of the greater Bangor area, streams and ponds with beaver dams, wetlands containing a great blue heron rookery and other waterfowl and wading birds, and a variety of other wildlife such as deer, moose,

bear, bobcat, fox, coyote and turkeys. Besides maintaining the land as a working forest, HLT envisions this unique property being made available to the public for low-impact recreation such as hiking, biking, cross-country skiing, fishing, trapping, horseback riding, hunting, snow-shoeing and snowmobiling.
Holden has no conserved property to date. HLT's desire to conserve this land is consistent with the goals of the 2007 Holden Comprehensive Plan, the 2010 Holden Open Space Plan, and the 2009 Penobscot Valley Community Greenprint to help secure a high quality of life for generations of citizens.

Fish Passage. Ideally, to pass fish effectively and minimize impacts to EFHs, crossings must satisfy the following criteria:

1. Design Peak Flow: This represents the optimal design that minimizes the expected cost associated with flooding.
2. Maximum Velocity: Determining approximate maximum water velocities for assessing whether the target fish population could swim upstream against the current at critical periods.
3. Minimum Depth: Providing minimum depth ensures adequate water depth during periods of simultaneous low flow and fish movement. New and replacement pipes should be sized for consistency with the natural channel bank full width and depth, with the implicit assumption that such sizing would produce automatically the desired flow velocities and depths.
4. Gradient: Culverts should be installed at the proper elevation to avoid perched outlets that fish cannot access. Pipes should be embedded and allowed to fill in to maintain a continuous, natural gradient.

3.10.2 Commitments

The following is a summary of the commitments from the MaineDOT and the FHWA in support of the development of Alternative 2B-2/the Preferred Alternative to avoid and minimize impacts to a variety of natural resources:

- Alternative 2B-2/the Preferred Alternative would be a controlled-access facility; motorists would be permitted to enter and exit from I-395 in Brewer and Route 9 in Eddington.
- The highway drainage and stormwater management system would be designed in accordance with the MDEP/MaineDOT/Maine Turnpike Authority Memorandum of Agreement, Stormwater Management, May 30, 2003. Under the memorandum of agreement, the MaineDOT would be required to meet the General Standards under Chapter 500 to the extent practicable as

determined through consultation with and agreement by DEP. Under the Chapter 500 General Standards for a linear project, MaineDOT would be required to treat 75% of the linear portion of Alternative 2B-2/the Preferred Alternative's impervious area and 50% of the developed area that is impervious or landscaped for water quality. To meet the General Standards, a project's stormwater management system must include treatment measures that would mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts.

- During final design of Alternative 2B-2/the Preferred Alternative, MaineDOT would be conduct a Pre-Construction Potable Water Supply Characterization Assessment prior to construction. This assessment is undertaken to establish a baseline relative to the quality of water extracted from residential and commercial potable water supplies located along the project corridor.
- Erosion and sedimentation control measures would be developed and incorporated into the final design of Alternative 2B-2/the Preferred Alternative and implemented during construction, in accordance with section II of the MaineDOT's *Best Management Practices Manual for Erosion and Sedimentation Control* (MaineDOT, 2008a).
- MaineDOT would consider green infrastructure and low-impact development practices such as reducing impervious surfaces, using vegetated swales and revegetation, protecting and restoring riparian corridors, and using porous pavements.
- During final design of Alternative 2B-2/the Preferred Alternative, the MaineDOT would further evaluate opportunities to shorten the width of road-stream crossings and preserve the natural stream bottoms in the road-stream crossings to promote the passage of aquatic organisms. Road-stream crossings would be designed in accordance with the MaineDOT Waterway and Wildlife Crossing Policy and Design Guide (MaineDOT, 2008e), except in cases where the drainage is not a stream The proposed road-stream crossings would span the streams at a width that is 1.2 times the bankful width (i.e., 20 percent larger than a full stream) and use either a bottomless structure or a four-sided structure with stream simulation design and natural substrate installed.
- During final design of Alternative 2B-2/the Preferred Alternative, the MaineDOT would work to further avoid and minimize the impacts to streams, wetlands, dispersal habitat for vernal pools, and floodplains. Further minimization of the impact

to streams, wetlands, and floodplains would occur through minor shifts in the alignment of Alternative 2B-2/the Preferred Alternative and increasing the slope of fill material, which could reduce the amount of fill material placed in wetlands and floodplains. Hydraulic analysis to size the culverts would be performed during final design.

- The build alternatives would each have two wildlife passage structures, large enough to pass moose and deer, on both sides of Eaton Brook. Wildlife passages would be designed in accordance with the MaineDOT Waterway and Wildlife Crossing Policy and Design Guide (MaineDOT, 2008e) and current passage strategies.
- MaineDOT would coordinate the identification and development of compensatory mitigation with federal and state regulatory and resource agencies. MaineDOT would contact the Brewer Land Trust during the development of the mitigation plan for the I-395/Route 9 connector.
- MaineDOT's commitment to consider measures to reduce construction period impacts during project design should not be construed as a project-specific commitment. MaineDOT has long-standing and broadly-applied policies in place to mitigate air quality impacts during construction (e.g., idle reduction policy). These policies translate into standard practices for all projects undertaken by MaineDOT and its contractors; standard language requiring contractor compliance is part of construction contracts and compliance is a presumptive part of project planning, including NEPA.
- The MaineDOT is committed to improving the intersection of Routes 9 and 46. The improvements to this intersection could be accomplished within the existing rights-of-way of Routes 9 and 46 with no impact to the natural and social features adjacent to the intersection. Given the future need and the limited scope of the improvements to the intersection, a timeframe has not been established for these intersection improvements. The proposed intersection would be studied and further developed during final design and discussed at a future public meeting.
- The MaineDOT is committed to further improving the most heavily congested section of Route 1A in the study area to the south of the I-395 interchange with Route 1A. These improvements could be accomplished within the existing right-of-way of Route 1A. Given the future need for the improvements to Route 1A, a timeframe has not been established.
- The MaineDOT would work with the town of Eddington to maintain the safety and preserve the capacity of Route 9 in the study area. The

range of possible activities that could be considered to maintain the safety and preserve the capacity of Route 9, in accordance with Maine's rules governing access management, are working with the town of Eddington to change zoning, eliminate existing and minimize future curb cuts, and working with individual landowners to acquire property or development rights.

- MaineDOT would work with town officials and evaluate Route 9 for potential improvements to improve safety for pedestrians and bicyclists along Route 9. Providing safe access for pedestrians and bicyclists along the road system typically consists of paved shoulders, sidewalks in highly developed areas, high visibility crossings where warranted, and signage to help alert drivers of the presence of bicyclists and pedestrians on the road system. A road safety audit would be conducted in conjunction with town officials and residents to develop potential immediate and longer term improvements that the town can consider as options to improve safety for pedestrians and bicyclists.
- During final design of the selected alternative, the MaineDOT would work to maintain the integrity of the existing snowmobile trail system.
- MaineDOT and FHWA would re-initiate Section 7 consultation with the USFWS when the NLEB and/or its critical habitat become officially listed under the ESA.

The USFWS set forth commitments within the BO as Reasonable and Prudent Measures and Terms and Conditions for MaineDOT and FHWA to follow during construction of Alternative 2B-2/the Preferred Alternative.

The Reasonable and Prudent Measures are as follows:

- Minimize the adverse effects to, and incidental take of, Atlantic salmon by employing construction techniques that avoid or minimize adverse effects to water quality, aquatic and riparian habitats, and all aquatic organisms;
- Minimize the adverse effects to, and incidental take of, Atlantic salmon related to aquatic habitat connectivity and fish passage by ensuring that the project is built as proposed;
- Minimize changes to stream water quality including stream velocity, turbidity levels and temperature from existing conditions through stormwater management, application of best management practice measures during construction and as part of the roadway operation and maintenance period;
- Ensure completion of a monitoring, evaluation, and reporting program to confirm that this project has been effective in minimizing

incidental take from the FHWA-funded activity and that the amount of allowable incidental take is not exceeded;

- Construction impacts shall be confined to the minimum area necessary to complete the project;
- Minimize effects of runoff from disturbed sites during construction through implementation of best management practices measures for erosion and sediment control;
- Monitor project implementation and compliance with conservation and best management practices measures; and
- Construction shall not inhibit Atlantic salmon passage through road-stream crossing structures or degrade critical habitat quality after project completion during the maintenance and operation period.

The Terms and Conditions listed in the BO are:

1. New impervious surface and discharged stormwater runoff quantity and quality must be treated using best management practices that incorporate water infiltration and/or filtration, avoiding direct water discharge into designated Atlantic salmon critical habitat or any surface waterway that subsequently directly discharges into critical habitat, raising stream temperatures above pre-construction conditions.
2. All applicable conservation measures described in the BO will be fully implemented.
3. Monitoring of best management practice implementation will be conducted by MaineDOT to evaluate compliance throughout the construction period. An annual report will be submitted to the USFWS's Maine Field Office each December for the previous November through October construction period.
4. Site preparation, including cofferdam installation and removal, and temporary access road establishment, will not cause sedimentation and adverse levels of turbid water discharge into streams following erosion and sedimentation control requirements in MaineDOT's' *Best Management Practices for Erosion and Sedimentation Control* document.
5. Migration/movement barrier/delay due to cofferdam placement will be minimized by limiting cofferdam placement to the time necessary to complete instream activities. The cofferdams will be removed within two days of the completion of instream construction.
6. Instream construction shall occur during the low flow period (July 15 to October 1). If MaineDOT determines that any instream

construction activity cannot be completed prior to October 1, a bypass channel shall be constructed to avoid affecting Atlantic salmon movement in Felts and Eaton Brooks. All bypass channels shall be constructed and operating by October 2 to avoid consultation reinitiation.

7. Hydroacoustic impacts from sheet pile installation (if applicable) will not adversely affect Atlantic salmon. MaineDOT shall manage noise producing activities to within noise thresholds described in this BO. Hydroacoustic monitoring shall be conducted as described and reports shall be submitted to the USFWS two weeks after completing each pile driving activity, including cofferdam completion or installed bridge piles for each bridge.
8. Disturbance and construction association with crossing structure placement will not adversely affect Atlantic salmon due to instream construction activities occurring within a cofferdam.
9. Underwater acoustic monitoring will be conducted to track noise levels associated with any sheet pile installation. Acoustic monitoring will be required wherever instream pile driving activities occur in Atlantic salmon critical habitat. A single hydrophone will be placed at 10 meters upstream and downstream of noise producing activity. MaineDOT shall continually monitor noise levels to assure activities that may approach the published threshold values for potentially injuring juvenile salmonid will receive noise attenuation measures immediately, assuring the threshold values are not reached. MaineDOT shall provide monitoring reports to the USFWS after the completion of each cofferdam installation or immediately after completion of similar activities.
10. All Atlantic salmon mortalities from electrofishing or other related activities shall be reported to USFWS within 48 hours of occurrence. Any dead Atlantic salmon shall be immediately preserved (refrigerate or freeze) for delivery to the USFWS's office in Orono, Maine. If the USFWS is not available, contact NMFS in Orono, Maine to arrange for delivery. Upon completion of each fish evacuation event, the MaineDOT shall report the total Atlantic salmon mortality level, if any, for that event. An event is defined as any single attempt to evacuate all fish from a single cofferdam. An event is complete when the cofferdam is dewatered and construction activities may begin.
11. Adverse effects to Atlantic salmon's ability to migrate, forage, shelter, and spawn are not expected as road-stream crossing structures in critical habitat will be designed to span perennial streams using a minimal structure horizontal clearance that is 1.2 times each streams' bankfull width.

12. To address potential effects to listed species and critical habitat resulting from fill material acquisition outside the roadway corridor and terminal interchange buffers, the MaineDOT will include language in the construction contract, via a Special Provision, which states the contractor shall avoid all potential effects to listed species and critical habitat when obtaining fill material needed for construction. The USFWS will receive a copy of this Special Provision for review prior to finalization of the Plans, Specifications and Estimate (PS&E) package. This condition is required because the USFWS's BO and the Incidental Take Statement do not evaluate nor authorize any adverse effects or take associated with fill material acquisition outside the roadway corridor buffer and terminal interchange buffers portion of the action area. If avoidance cannot be achieved, the FHWA should reinitiate consultation or the contractor would have to apply for an ESA section 10 permit to acquire an incidental take permit, a time-consuming process that would likely affect the construction schedule.
13. For those sections of the proposed alignment that discharge into streams, MaineDOT shall design stormwater management systems that provides the greatest thermal buffering.

Chapter 4
Coordination and Consultation

Chapter 4 summarizes the coordination and consultation activities performed for this study among the federal, state, and local agencies and the public.

Throughout this study, the MaineDOT and the FHWA, acting as joint lead agencies, coordinated with federal and state regulatory and resource agencies, the tribes, Bangor Area Comprehensive Transportation System (i.e., the Metropolitan Planning Organization [MPO]), the city and towns in the study area, the regional and other special-interest groups, and the public.

Scoping. There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process shall be termed "scoping" (40 CFR 1501.7).

A complete description of the public-involvement program, including meeting agendas, handouts, maps, presentations, displays, and minutes, is on the study website www.i395-rt9-study.com on the "Stay Informed" page.

4.1 Scoping and Early Coordination

In support of the preparation of the EA, a public scoping and informational meeting was held on April 11, 2001. The purposes of the meeting were to (1) review the planning and programming activities that led to the initiation of the study, and (2) provide an opportunity for public comments at the beginning of the study. The meeting was preceded by an informal open house; the formal part of the meeting consisted of a presentation and discussion of the history, purpose and needs of the study, and a broad review of strategies and alternatives for satisfying the purpose and needs. About 60 people attended the meeting, most of which was spent in questions and answers about the time required to complete the study, methods for collecting traffic data and predicting traffic volumes, relationship of the study to the east–west highway initiative, use of rail to move people and goods, sources of funding, and subsequent phases, including construction. Suggestions from the public were to use rail to ease truck traffic and reduce speed limits to improve safety.

Chapter Contents

The MaineDOT and the FHWA conducted scoping with the federal and state regulatory and resource agencies using the MaineDOT monthly interagency coordination meetings. Scoping was initiated in late 2000 and concluded in early 2001.

In December 2000, scoping and early-coordination letters were mailed to federal and state regulatory and resource agencies, the city and towns in the study area, and regional and special-interest groups, in accordance with the procedural provisions of the NEPA and requirements and policies of the MaineDOT and the FHWA. Letters accompanied by a map of the study area, a description of the study purpose and the need for action, and an outline of the study to be conducted were mailed to provide notification of the study, request specific information pertaining to the study area, and encourage participation by identifying areas of initial concern for consideration and inclusion in the study (exhibit 4.1). There were no key resources or issues of primary concern identified.

In October 2005, the FHWA elevated the I-395/Route 9 transportation study to an EIS because of potential impacts to wetlands and difficulty in identifying mitigation for those impacts. In response to the need to prepare an EIS, the FHWA published the notice of intent to prepare the EIS on December 1, 2005, in the *Federal Register* (*Federal Register*, Vol. 70, No. 230, pages 72144-72145) Additionally, MaineDOT prepared a coordination plan to guide the agency coordination and public involvement activities to be performed.

Following the decision to prepare an EIS, a second agency scoping and field view of the study area was conducted on June 3, 2008. The agencies in attendance were the MaineDOT and the FHWA, acting as joint lead agencies, with the USACE, USEPA, and USFWS acting as cooperating agencies. The discussions included the activities conducted to date, key resources in the study area, methods for analysis of impacts to the key resources, opportunities and expectations for mitigation for impacts to waters of the United States, and specifics for conducting the study using an integrated EIS and Section 404 format. The key resources and issues of concern were potential impacts to wetlands, potential difficulty in identifying mitigation for those impacts, and wildlife habitat. Several "connectors" between the westernmost alternatives were suggested for development and analysis.

Following the decision to prepare an EIS, a second public scoping and informational meeting was held on June 4, 2008. The purposes of the meeting were to provide (1) an update to the study, the reasons that an EIS was being prepared, and the differences between an EA and an EIS; and (2) an opportunity for the public to comment and indentify concerns to be addressed in the study. The meeting was preceded by an informal

Exhibit 4.1 - *Summary of Scoping and Early Coordination Letters during Preparation of the EA*

Agency or Organization	Information Requested	Information Received
Federal Agencies		
U.S. Army Corps of Engineers	General letter requesting comments	No response received
U.S. Fish & Wildlife Service	Federally listed or proposed threatened or endangered species and known critical habitats	Bald eagle is known to occur in the study area
U.S. Department of Agriculture, Maine State Office	General letter requesting comments	No response received
U. S. Department of Agriculture, Natural Resources Conservation Service, Penobscot County	General letter requesting comments	No response received
U. S. Department of the Interior, Office of Environmental Policy & Compliance	General letter requesting comments	No response received
U.S. Environmental Protection Agency	General letter requesting comments	No response received
National Marine Fisheries Service	General letter requesting comments	No response received
State Agencies		
Maine Department of Inland Fisheries and Wildlife	State listed or proposed, threatened or endangered species, known critical habitats, and other sensitive features and concerns	Map of significant and essential wildlife habitats
Maine Department of Environmental Protection, Air Quality	Previous studies of air quality in the region	No response received
Maine Department of Environmental Protection, Land and Water Quality Control	General letter requesting comments	A permit from the MDEP would be required if the proposed solution alters protected natural resources
Maine Geologic Survey	Location of groundwater wells and groundwater quality; wellhead-protection areas and intake-protection areas	List and map of known bedrock wells in the study area
Maine Department of Conservation, Forest Service	General letter requesting comments	No response received
Maine Department of Conservation, Bureau of State Parks and Lands	Identification of parks, recreation areas, or lands using funds from the LWCF	No response received
Maine State Planning Office	General letter requesting comments	No response received
Maine Natural Areas Program	State listed or proposed, threatened or endangered species, critical habitats, and other sensitive features and concerns	Two rare plant species are known to exist in the study area: American shoregrass and water stargrass
State Floodplain Management Coordinator	General letter requesting comments	Executive Order 11988 applies; use the 100-year flood standard

Exhibit 4.1 – *Summary of Scoping and Early Coordination Letters during Preparation of the EA (continued)*

Agency or Organization	Information Requested	Information Received
Maine Department of Economic and Community Development, Office of Business Development	General letter requesting comments	No response received
Maine Department of Conservation, Grants and Community Recreation	General letter requesting comments	Three properties in the study area received funding from the LWCF
Maine Department of Agriculture, Soil and Water Conservation Commission	General letter requesting comments	No response received
Maine Department of Marine Resources	General letter requesting comments	No response received
Maine Drinking Water Program	Groundwater wells, surface water intakes, wellhead-protection areas, intake-protection areas	Maps of public water supplies in the study area
Local Agencies		
City of Brewer	General letter requesting comments	Offer of assistance from the Director of Environmental and Public Works
Town of Holden	General letter requesting comments	Requested that proposed solutions be consistent with the town's comprehensive plan
Town of Eddington	General letter requesting comments	No response received
Regional or Other		
Eastern Maine Development Corporation	General letter requesting comments	No response received
Maine Citizens for Increased Jobs and Safety	General letter requesting comments	Comments supporting the need for the study

open house; the formal part of the meeting consisted of a presentation and discussion of the legislative framework guiding the study, the study's purpose and why it is needed, the resources and features in the study area, the range of reasonable alternatives, opportunities to learn more about the study and participate in it, results achieved to date, and issues identification. About 30 people attended the meeting most of which was spent in questions and answers about the time required to complete the study, sources of funding for the study, and subsequent phases, including construction.

Following the decision to begin preparation of an EIS, in October 2008, the MaineDOT and the FHWA mailed scoping and early-coordination letters to federal and state regulatory and resource agencies, the city and towns in the study area, and regional and

special-interest groups. The letters directed recipients to the study website (www.i395-rt9-study.com) for additional information about the study to be conducted. Several letters requested specific information to be used in the study (exhibit 4.2). There were no key resources or issues of primary concern identified.

Exhibit 4.2 - *Summary of Scoping and Early Coordination Letters during Preparation of the EIS*

Agency or Organization	*Information Requested*	*Information Received*
Federal Agencies		
U.S. Army Corps of Engineers	General letter requesting comments	No response received
U.S. Fish & Wildlife Service	Federally listed or proposed threatened or endangered species or known critical habitats in the study area	No response received
U. S. Department of Agriculture, Natural Resources Conservation Service, Penobscot County	General letter requesting comments	No response received
U.S. Environmental Protection Agency, Region I	General letter requesting comments	No response received
U.S. Geological Survey	General letter requesting comments	No response received
Federal Emergency Regulation Commission	General letter requesting comments	No response received
Federal Railroad Administration	General letter requesting comments	No response received
Federal Transit Administration	General letter requesting comments	No response received
National Oceanographic Atmospheric Administration Fisheries	General letter requesting comments	No response received
National Marine Fisheries Service	General letter requesting comments	No response received
Tribes		
Penobscot Indian Nation	General letter requesting comments	No response received
Houlton Band of Maliseet Indians	General letter requesting comments	No response received
Aroostook Band of Micmacs	General letter requesting comments	No response received
Passamaquoddy Tribe of Indians	General letter requesting comments	No response received
Passamaquoddy Tribe Pleasant Point	General letter requesting comments	No response received

Exhibit 4.2 – *Summary of Scoping and Early Coordination Letters during Preparation of the EIS (continued)*

Agency or Organization	Information Requested	Information Received
State Agencies		
Maine Department of Inland Fisheries and Wildlife	State listed or proposed threatened or endangered species, known critical habitats, or other sensitive features or concerns	Bald eagle nest locations and proposed rules protecting Atlantic salmon
Maine Department of Environmental Protection, Air Quality	Previous studies of air quality in the region	No response received
Maine Department of Environmental Protection, Land and Water Quality Control	General letter requesting comments	No response received
Maine Historic Preservation Commission	General letter requesting comments	No response received
Maine Geologic Survey	Location of groundwater wells and groundwater quality; wellhead-protection areas and intake-protection areas	Location of groundwater wells wellhead-protection areas, and intake-protection areas
Maine Department of Conservation	General letter requesting comments	No response received
Maine Department of Conservation, Forest Service	General letter requesting comments	No response received
Maine Department of Conservation, Bureau of State Parks and Lands	Identification of parks, recreation areas, or lands purchased with funds from the LWCF	No response received
Maine Atlantic Salmon Commission	General letter requesting comments	No response received
Maine Department of Conservation, Northern Region Bureau of State Parks and Lands	General letter requesting comments	No response received
Maine State Planning Office	General letter requesting comments	Maine floodplain management program floodplain issues
Maine Natural Areas Program	State listed or proposed threatened or endangered species, critical habitats, or other sensitive features or concerns	No response received

Exhibit 4.2 – *Summary of Scoping and Early Coordination Letters during Preparation of the EIS (continued)*

Agency or Organization	*Information Requested*	*Information Received*
State Floodplain Management Coordinator	General letter requesting comments	No response received
Maine Department of Economic and Community Development, Office of Community Development	General letter requesting comments	No response received
Maine Department of Agriculture Soil and Water Conservation Commission	General letter requesting comments	No response received
Maine Department of Marine Resources	General letter requesting comments	Species of diadromous fish
Maine Drinking Water Program	Groundwater wells, surface water intakes, wellhead-protection areas, intake-protection areas	No response received
Maine Emergency Management Agency	General letter requesting comments	No response received
Maine Department of Conservation, Off-Road Vehicles Division	General letter requesting comments	No response received
Maine Tree Committee	General letter requesting comments	No response received
Local		
City of Brewer	General letter requesting comments	No response received
Town of Holden	General letter requesting comments	No response received
Town of Eddington	General letter requesting comments	No response received
Town of Clifton	General letter requesting comments	No response received
Bangor Area Comprehensive Transportation System	General letter requesting comments	No response received
Regional or Other		
Eastern Maine Development Corporation	General letter requesting comments	No response received
Boy Scouts of America	General letter requesting comments	No response received
East – West Highway Association	General letter requesting comments	No response received
Maine Motor Transport Association	General letter requesting comments	Letter stating support for the study
Maine Snowmobile Association	General letter requesting comments	No response received

4.2 Federal and State Agency Interagency Coordination Meetings

This study was presented to the federal and state regulatory and resource agencies that attended the MaineDOT monthly interagency coordination meetings on eight occasions during preparation of the EA (exhibit 4.3). The federal and state regulatory and resource agencies that regularly attend these meetings are the USACE, USEPA, USFWS, NMFS, MDEP, MDIFW, Maine Historic Preservation Commission (MHPC), Maine Department of Marine Resources (MDMR), and Maine Department of Conservation (MDOC). Other federal and state regulatory and resource agencies attend these meetings as needed.

This study was presented to the federal and state regulatory and resource agencies that attended the MaineDOT monthly interagency coordination meetings on three occasions during preparation of the EIS (exhibit 4.4). The major issues addressed were the potential impacts to wetlands, streams, vernal pools, unfragmented habitat, the potential mitigation for those impacts, and the development and refinement of the build alternatives to further avoid and minimize impacts to the natural and social environment features in the study area. The cooperating agencies concurred with the range of reasonable alternatives to be retained for detailed analysis in the EIS in January 2008 in the DEIS.

4.3 Public Involvement

Public participation was initiated early in the study to incorporate public comments and concerns into the development and analysis of the study needs, purpose, range of reasonable alternatives, potential resultant environmental impacts, and development of conceptual mitigation measures. Public participation continued throughout the study. The public-involvement program included the scoping meetings, meetings of the PAC, two public meetings, a website, information posters, and newsletters.

4.3.1 Public Advisory Committee

At the beginning of the study, a PAC consisting of local officials, business owners, the MPO, and private citizens from Bangor, Holden, Brewer, Eddington, Clifton, Bucksport, and Calais was formed. The purpose of the PAC and its meetings was to provide a forum and support the overall public-involvement program. The PAC participated in the study by meeting periodically with the MaineDOT and the FHWA and providing guidance on local issues and concerns. The PAC meetings were working sessions open to the public and included time for questions and answers

Exhibit 4.3 - *Summary of Interagency Coordination Meetings and Results during Preparation of the EA*

Interagency Meeting	*Discussion and Results*
November 14, 2000	The study was introduced and an overview of activities was provided.
February 13, 2001	The needs for the study, its purpose, and the natural resource and social environmental features in the study area were presented. The agencies in attendance concurred with the information presented.
October 9, 2001	The alternatives-analysis information to date was presented. The agencies in attendance concurred with the range of reasonable alternatives considered and the preliminary screening of alternatives to date. **Attended by:** USACE, USEPA, USFWS, NMFS, MDEP, MDIFW, MASC, and MDMR
March 12, 2002	An update to the alternatives analysis was presented. The agencies in attendance concurred with the range of alternatives considered but stated that Alternative 2B was practicable. The agencies requested that additional impacts to people living along Route 9 be quantified. **Attended by:** USACE, USFWS, and MDEP
October 8, 2002	An update to the alternatives analysis and the direction of the study were presented. The agencies in attendance concurred with the range of alternatives considered and the direction of the study. **Attended by:** USACE, USFWS, NMFS, and MASC
March 11, 2003	The agencies in attendance concurred with dismissing Alternative 2C-2 due to its greater impacts to farmlands and farming operations than other alternatives. **Attended by:** USACE, USEPA, USFWS, MDEP, MDIFW, and MASC
May 13, 2003	The agencies in attendance concurred with dismissing the remaining build alternatives except Alternative 3EIK-2, pending review of the "Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission"–a document that summarizes and presents results of the alternatives-analysis process. **Attended by:** USACE, USEPA, USFWS, MDEP, MDIFW, MASC, and MHPC
November 14, 2003	A modification of Alternative 2B-1 was discussed. It was agreed by the agencies in attendance that this modification should be dismissed from further consideration. **Attended by:** USACE, USFWS, MDEP, and MDOC

(exhibit 4.5). Seventeen PAC meetings were held during the preparation of the EA.

Following the decision to begin the preparation of the EIS, a new PAC was formed. This PAC consisted of many of the same individuals who had participated in the study to date and several others with knowledge of the area and potential issues and concerns (Appendix B of the DEIS). These PAC meetings were working sessions open to the public and included time for questions and answers (exhibit 4.6). Three PAC meetings were held during the preparation of the EIS.

4.3.2 Public Informational Meetings

Two public meetings were held during the preparation of the EA. The first meeting was the public scoping and informational meeting held on April 11, 2001 (section 4.1).

Exhibit 4.4 - *Summary of Interagency Coordination Meetings and Results during Preparation of the EIS*

Interagency Meeting	Discussion and Results
October 9, 2007	An update to the study was provided. The update consisted of changes in land use in the study area since 2003 and the current range of reasonable alternatives being considered and analyzed for obtaining the USACE Phase I approval. **Attended by:** USACE, USEPA, USFWS, FHWA, MDMR, MDEP, and Maine Natural Areas Program (MNAP)
December 9, 2008	An update to the alternatives analysis was presented. The update consisted of results of the six "connectors" between the three westernmost alternatives. The agencies in attendance concurred in continuing to study: • 5A2E3K to 2B-2 connector 1 and/or 5A2E3K to 2B-2 connector 2 • 5A2E3K to 2B-2 connector 1 to 2B-2 to 5A2E3K to 2B-2 connector 2 and/or • 5A2E3K to 2B-2 via connector 1 to 2B-2 to 5A2E3K via connector 3 The first two Alternatives beginning with 5A were chosen and named 5A2E3K-1 and 5A2E3K-2, respectively. Alternative 5B2E3K was modified to avoid the Dirigo Drive Business Park and named Alternative 5B2E3K-1. **Attended by:** USACE, USFWS, NMFS, FHWA, and MDIFW
May 12, 2009	An update to the alternatives analysis and the resultant impacts was presented. The agencies in attendance concurred with dismissing Alternatives 1 and 3A-3EIK-1 from further consideration. The agencies requested a new alternative to be considered: 2B-2 plus improvements to Route 9 to East Eddington with a section on new alignment to the north of the intersection of Routes 9 and 46. Two other changes to alternatives were requested: (1) for the alternatives that begin with 5A, develop a partial cloverleaf interchange with Route 1A; and (2) for Alternative 3EIK-2, move a portion of the alternative closer to Clark Hill Road. **Attended by:** USACE, USEPA, USFWS, NMFS, FHWA, MDEP, and MDOC
January 12, 2010	The alternatives in the Family of 5s was presented and discussed. Alternative 2B-2 is proximate to the family of 5s and shares partial alignment with one of the 5s. In light of the Executive Order on floodplains, the MaineDOT suggested that Alternative 5B2E3K-1 could be dismissed from further consideration because of its potential impacts to floodplains; according to the EPA, the potential impacts to floodplains are not a sufficient reason to dismiss an alternative from further consideration because lost flood storage area can be replaced. Alternative 5B2E3K-1 should be retained for further consideration because of part of its alignment is adjacent to a Bangor Hydro-Electric utility easement. The Bangor Hydro-electric utility easements are disturbed and the resources within them are of lesser value than those in undisturbed locations. The Bangor Hydro-Electric utility easements are used for recreation and portions of them beneath the electrical lines are periodically mowed. **Attended by:** USACE, USFWS, FHWA, MDMR, MDOC, and MDEP
October 11, 2011	An update to the design criteria and conceptual design of the build alternatives retained for further consideration and the alternatives analysis and the resultant impacts was presented. The agencies concurred with identifying Alternative 2B-2 as the Preferred Alternative for satisfying the study purpose and need and satisfying the USACE's overall and basic project purpose with the least adverse impact to the environment. It was agreed that Route 9 has sufficient capacity and would operate at comparable speeds in the design year and no improvements to Route 9 would be considered reasonably foreseeable. The MaineDOT would update the list of opportunities for compensatory wetland mitigation and include it in the DEIS that is circulated for public review to allow an opportunity to comment on mitigation. **Attended by:** USACE, USEPA, USFWS, NMFS, FHWA, MDMR, MDEP, MDIFW
December 13, 2011	The administrative DEIS was distributed to the Federal Cooperating Agencies for review and comment. The Federal Cooperating Agencies present provided a synopsis of their review of the administrative DEIS so far. The USACE and the USFWS reported that their review of the administrative DEIS was almost complete and no major gaps in material were found. Moving forward, the joint lead agencies – the FHWA and MaineDOT – discussed circulating the DEIS and holding a joint public hearing with the USACE. **Attended by:** FHWA, USACE, USFWS, MDMR, MNAP

Exhibit 4.5 - *Summary of PAC Meetings during Preparation of the EA*

PAC Meeting	Discussion and Results
September 11, 2000	Introduced the study-team participants and reviewed the scope of studies to be conducted, NEPA process, role of the PAC, and scope of the public-involvement and agency-coordination programs.
October 2, 2000	Discussions consisted of the purpose and needs for the study and how they are used in decision making. Three needs were discussed: system linkage, traffic congestion, and safety.
November 15, 2000	Discussions consisted of the study needs, goals, and objectives; study-area boundary; and important natural and social features in the study area.
January 17, 2001	Discussions consisted of the study needs, development of the study purpose and needs statement, and further identification of natural and social features.
February 28, 2001	Results of the interagency coordination, crash data, and traffic forecasts were discussed. Performance measures for developing alternatives were developed.
May 2, 2001	Results of the informational and scoping meeting held in April 2001 were discussed. Other items discussed were travel-demand forecasting, natural and social features, and preliminary alternatives identification and development. To develop alternatives, the study team, with the PAC, created 1,000-foot-wide corridors for alternatives that satisfy the needs and purpose of the study with the least adverse environmental impacts. The corridors were drawn on the mapping of features and were subsequently refined and developed into 46 alternatives.
June 27, 2001	The range of reasonable alternatives, their overall feasibility, and preliminary impacts were presented. Results of the preliminary alternatives screening were explained. Changes were suggested to avoid and minimize impacts. Four additional alternatives were suggested.
July 18, 2001	The preliminary impacts for the additional alternatives developed were presented. A summary of traffic forecasting and analysis was presented.
October 23, 2001	Discussions consisted of results of the public and interagency coordination meetings in September and October 2001, a summary of regional transportation improvements and connected actions, traffic forecasting and analysis of alternatives, and a summary of the MaineDOT right-of-way and appraisal process. Alternative 1-4B was suggested for development and analysis.
December 19, 2001	Discussions consisted of impacts of Alternative 1-4B, range of alternatives, decision-making framework, and a summary of traffic forecasting and LOS analysis for the alternatives. The rationale for dismissing Alternatives 3E-2C and 3E-2C-2E was also discussed.
February 20, 2002	Comprehensive plans for the Bangor area, the city of Brewer, and the towns of Holden and Eddington were reviewed. Alternatives were discussed and identified for dismissal from further consideration.
May 22, 2002	Discussions consisted of results of the interagency coordination meeting in March 2002, the range of reasonable alternatives retained for continued study, and conceptual interchange and intersection designs. Nine new alternatives were developed.
July 24, 2002	Discussions consisted of a resolution from Holden, the alternatives retained for continued study, the reasons for dismissing alternatives, and the traffic operational characteristics of the alternatives. Eight new alternatives were suggested.
September 18, 2002	Discussions consisted of review of the alternatives retained for continued study and their potential impacts.
November 20, 2002	Discussions consisted of the range of reasonable alternatives, results of the interagency coordination meeting in October 2002, a summary of the MaineDOT right-of-way acquisition and relocation assistance programs, a summary of traffic forecasting, measures of effectiveness, and the rationale for dismissing a number of alternatives from further consideration. The town of Holden presented the results of its town meetings and an alternative that parallels existing utility corridors. Following this meeting, three alternatives – 2C-1, 2C-2, and 2C-1/2B-1 – were developed.
January 15, 2003	Discussions consisted of the results of two town of Holden and a town of Eddington sponsored meetings and specific facets of Alternatives 2C-1, 2C-2, and 2C-1/2B-1. Alternatives 2C-2 and 3A-3EIK-1 were dismissed from further consideration. Alternative 4B and suggestions for improving it were reviewed.
April 30, 2003	Discussions consisted of dismissing Alternatives 2B-1 and 3A-3EIK-1 from further consideration, modifications to Alternative 3EIK-2 to further reduce impacts, the results of the March 11, 2003, interagency meeting and the March 28, 2003, meeting with the USACE and the USEPA, and retaining the No-Build Alternative, Alternative 3EIK-2, and, potentially, Alternative 2C-1/2B-1 for further consideration.

Exhibit 4.6 - *Summary of PAC Meetings during Preparation of the EIS*

PAC Meeting	Discussion and Results
August 20, 2008	Introduced the study-team participants and reviewed the process for preparing an EIS and how the study would be performed, an overview of the PAC and its function and ground rules, results of the public and agency scoping meetings, the public-involvement and agency-coordination programs, and the schedule for the study moving forward.
November 19, 2008	The PAC process and meeting ground rules were reviewed, followed by a review and discussion of the town of Holden's October 2008 resolution, traffic data, conceptual design of the range of reasonable alternatives including the "connectors," ways to further avoid and minimize impacts, and short-term activities to be performed.
April 15, 2009	An update to the alternatives analysis, the resultant impacts, and next steps were presented. The PAC was informed that Alternatives 5B2E3K and Alternative 2B-2 with connectors to 5A2E3K were dismissed from further consideration in favor of retaining variations of these alternatives with less adverse impact to the environment. The PAC suggested that the MaineDOT and the FHWA further reduce the range of alternatives being considered to only those that the MaineDOT and the FHWA are most seriously considering and rename those alternatives using simpler names.

The second public meeting was held on September 19, 2001. The purpose of the meeting was to provide an update on the progress of the study since the public scoping and informational meeting in April 2001. The study purpose and needs, range of alternatives considered for satisfying needs and purpose, preliminary alternatives screening, the range of alternatives retained for further consideration, and next steps were presented. The concerns and suggestions for improving the study were to look for more immediate ways to ease congestion on I-395 and Route 1A, give consideration to the No-Build Alternative, consider the cost effectiveness of alternatives as part of the evaluation, seek ways to minimize impacts to individual properties, enforce the no-passing regulation on Route 46, reinstitute freight and passenger rail on the former Calais branch, consider wildlife mortality in the evaluation of alternatives, and consider actions to improve the safety on Route 46. There were no key resources or issues of primary concern identified at that time.

4.3.3 Website

A study-specific website (www.i395-rt9-study.com or the MaineDOT website: www.maine.gov/mdot/major-planning-studies/major-planning-stds.php) was developed early in the study and updated frequently. The website consists of a home page, a study overview, frequently asked questions, a "Stay Informed" page, resources (i.e., maps and publications), a glossary, and a links page. Shortly after each meeting, materials in support of the public-involvement program, including meeting agendas, handouts, maps, presentations, displays, and minutes, were placed on the website on the "Stay Informed" page.

4.3.4 Public Information

In support of the public-involvement program, circulation of public information was an important part of the study. Public information was released throughout the study in the forms of newspaper articles, press releases, newsletters, and posters on display in city and town offices.

4.4 Circulation of the DEIS and Summary of Substantive Comments

In early March 2012, MaineDOT mailed approximately 200 newsletters to property owners in the study area advising them of the status of the study, the circulation of the DEIS, opportunities to pose questions to MaineDOT and FHWA and receive answers, and provide comments. MaineDOT delivered approximately 250 copies of the newsletter to the City of Brewer and the towns of Holden, Eddington, and Clifton for distribution.

The MaineDOT and the FHWA announced the availability of the I-395/Route 9 Transportation Study DEIS on March 23, 2012 (Federal Register, Vol. 77, No. 57). A 60-day comment period immediately followed, during which MaineDOT and FHWA invited Federal, State and local agencies, Tribes, organizations, and individuals to submit comments on the I-395/Route 9 Transportation Study DEIS. The MaineDOT and FHWA received 11 comment letters (some with attachments), seven comment forms (some with attachments), 79 comment e-mails and one petition (Appendix A).

Two open houses and a public hearing were held during the 60-day comment period. The first open house was on April 4, 2012 at the Brewer Auditorium and the second open house was on May 2, 2012 at the Eddington Town Office. The purposes of the two open houses were to 1) meet with people with an interest in the study to answer questions about the study and, 2) receive suggestions for further avoidance and minimization of potential impacts from the build alternatives and ways to improve the analysis of alternatives prior to decision-making. The Public Hearing was held on May 2, 2012 at the Eddington School immediately after the open house; a transcript of the hearing was prepared. Nineteen attendees offered comments during the public hearing. The purpose of the public hearing was for the public to offer comments on the DEIS prior to preparation of the FEIS and decision-making; the public hearing was not a question and answer session. The public comment period on the I-395/Route 9 Transportation Study DEIS closed on May 15, 2012.

The MaineDOT submitted a preliminary permit application in accordance with Section 404 of the CWA to the USACE. Section 404 of the CWA requires a permit for the discharge of dredged and fill material into Waters of the U.S., including wetlands. In response to

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A. An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively, and shall respond by one or more of the means listed below, stating its response in the final statement. Possible responses are to:
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   5. Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

B. All substantive comments received on the draft statement (or summaries thereof where the response has been exceptionally voluminous), should be attached to the final statement whether or not the comment is thought to merit individual discussion by the agency in the text of the statement.

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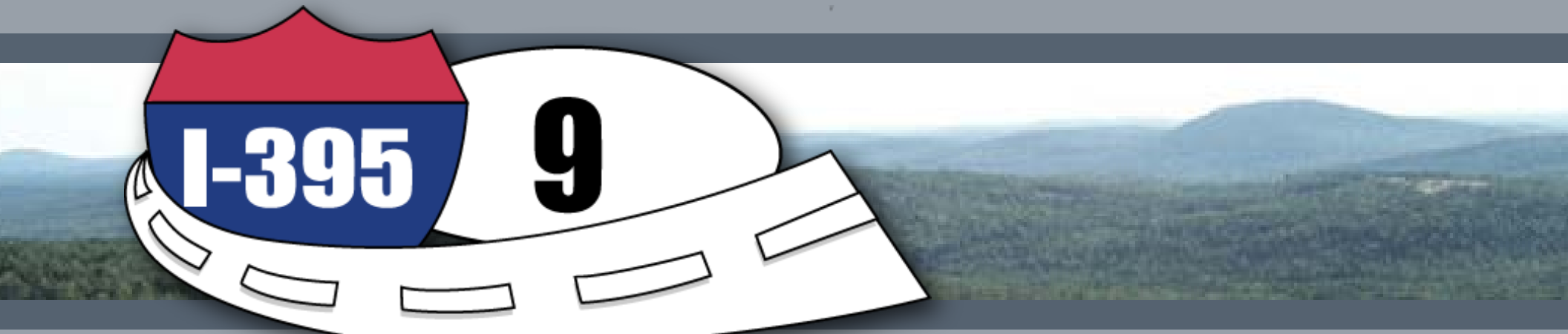
the preliminary permit application, the USACE issued their public notice soliciting comments on the project and range of issues addressed in the DEIS. The comment period on the preliminary permit application closed on May 17, 2012. The USACE's LEDPA determination was received by MaineDOT on July, 31, 2013 (Appendix B).

The requirements for responding to comments received on DEISs are contained in 40 CFR 1503.4. When identifying substantive comments, MaineDOT and FHWA closely examined each letter, form and email and took a conservative approach to identifying substantive comments; if a remark appeared to suggest modifying an alternative, develop and evaluate a new alternative, improve or modify the analysis, or make factual corrections, it was identified as a substantive comment (Appendix A).

I-395/Route 9 Transportation Study

Appendices to the Final Environmental Impact Statement



Brewer, Holden, Eddington, and Clifton, Maine

FHWA-ME-EIS-12-01-F

MaineDOT Project Identification Number: 008483.20

FHWA: NH-8483(20)E

January 2015

Submitted Pursuant to 42 U.S.C. 4332 (2)(c) by the

Federal Highway Administration FHWA MaineDOT

and Cooperating Agencies

U.S. Fish & Wildlife Service, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration–National Marine Fisheries Service, Maine Department of Environmental Protection, and Maine Historic Preservation Commission

Appendix A

Responses to Substantive Comments on the Draft Environmental Impact Statement

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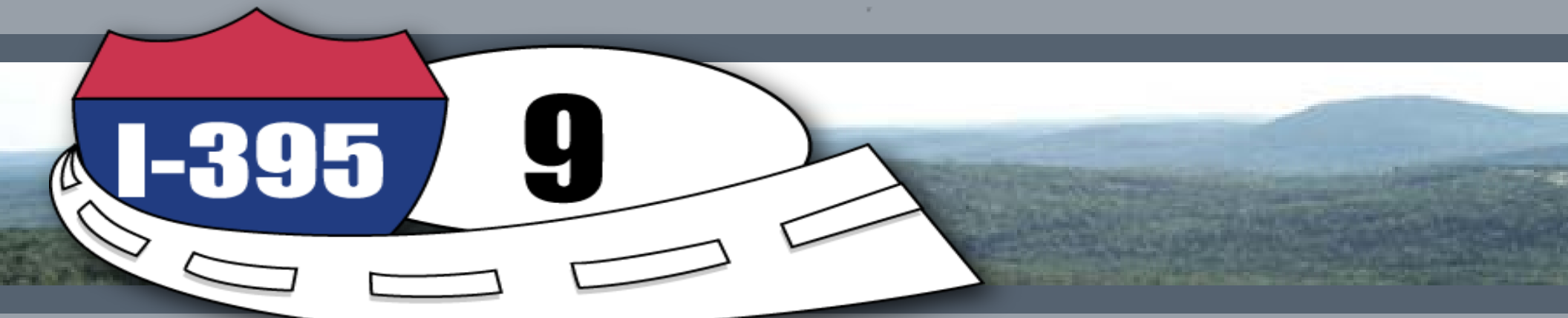
Responses to Substantive Comments

On the I-395/Route 9 Transportation Study
Draft Environmental Impact Statement



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Contents

Responses to Substantive Comments

on the Draft Environmental Impact Statement

Under the CEQ's regulations implementing NEPA (40 CFR Part 1503.1), an agency that publishes a DEIS is required to:

- Obtain the comments of Federal agencies with jurisdiction by law or special expertise, and
- Request comments from:
  - » agencies at all levels of government authorized to develop and enforce environmental standards
  - » Indian tribes, when the effects may be on a reservation
  - » an agency that has requested EISs on actions of the kind proposed
  - » the public, including actively soliciting comments from those persons or organizations that may be interested or affected

Comments received can range from statements of support for, or opposition to, an agency's proposed action to detailed critiques of the DEIS's analyses and suggestions for new alternatives. Comments might identify factual errors, omissions, areas of controversy, and provide new information to be considered in the analysis of alternatives and prior to decision-making.

An agency's focus in preparing the FEIS is the consideration of and responses to these comments. The comment-response process includes all steps from receipt and consideration of comments through the preparation of responses and any needed revisions to the EIS. An agency cannot complete the NEPA process until it has considered and responded to substantive comments on the DEIS in the FEIS. The comment-response process is intended to help make better and more informed decisions.

In early March 2012, MaineDOT mailed approximately 200 newsletters to property owners in the study area advising them of the status of the study, the circulation of the DEIS, opportunities to pose questions to MaineDOT and FHWA and receive answers, and provide comments. MaineDOT delivered approximately 250 copies of the newsletter to the City of Brewer and the towns of Holden, Eddington, and Clifton for distribution.

From the March 2012 Newsletter

The public is invited and encouraged to comment on the DEIS. Comments will be addressed when a Final EIS is published at a later date. MaineDOT and key agencies involved in the NEPA process have scheduled two open houses to provide members of the public with opportunities to learn about the DEIS and the NEPA process, and to ask questions and share concerns directly with the federal and state officials conducting the study. Following the open houses and in accordance with the NEPA process, there will be a formal public hearing. At the hearing, the U.S. Army Corps of Engineers will also receive comments on the Section 404 (Clean Water Act) permit application.

Open Houses

April 4 3:00 to 8:00 p.m. Brewer Auditorium
May 2 1:00 to 4:30 p.m. Eddington Town Office

Public Hearing

May 2 ~ 6:00 to 8:00 p.m.
Eddington Elementary School

Next Steps

While the formal public hearing will take place on May 2, 2012, the public comment period will continue through May 15. Comments received during the comment period and at the public hearing will be summarized and addressed in the Final EIS.

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public hearing. The purpose of the public hearing was for the public to offer comments on the DEIS prior to preparation of the FEIS and decision-making; the public hearing was not a question and answer session.

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Individual comments are identified in **Exhibit 1** and each was assigned a unique comment number. Due to the number and similarity of some comments, similar comments were grouped together, categorized and responded to collectively in **Exhibit 2**. Bold references in **Exhibit 1** refer to the category of the response in **Exhibit 2**. **Exhibit 2** was arranged alphabetically by category.

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Exhibit 1 - *Summary of Substantive Comments*

Received From		Comments
Federal Agencies		
U.S. Army Corps of Engineers Frank J. Del Giudice Chief, Permits and Enforcement Section Regulatory Division (Attachment, pg 55-60)	1-1	The FEIS needs to be a stand-alone NEPA document. Any references to supporting a Corps 404 permit application that are contained in the document, e.g. Section 1.8, Page 23, should probably be stricken or re-written. **(see FEIS, pg 31)**
	1-2	The FEIS needs to address future growth along Route 9 in the link west of Route 46 and how it will affect level of service. **(see Future Development, Route 9, pg 32)**
	1-3	What is the scope of actions that might be required in this section should level of service reach an unacceptable level in the future? **(see Traffic, pg 44)**
	1-4	The final document must provide greater clarification as to why Alternative 2B-2 was not preferred at one time and now is. **(see Alternatives, Final Document, pg 23)**
	1-5	The public seems mystified as to why traffic data at one time indicated that the section of Route 9 west of 46 could not be used and now it can. The final document should clarify this evolution. **(see Traffic, Traffic Data on Route 9, pg 44)**
	1-6	The relationship of the new East-West Highway initiative to this project's purpose and need needs to be better addressed in the FEIS. **(see East-West Highway, pg 28)**
	1-7	Page s16, Exhibit S.7: This table or footnotes to this table should clarify what the loss of vernal pool dispersal habitat is. Is it upland; is it wetland; or is it both? **(see Vernal Pools, Dispersal Habitat, pg 45)**
	1-8	Page s17, Exhibit S.8: The table now accurately reflects habitat characteristics within a 750' radius of the pools in addition to the DEP's 250'. How much of the forested cover surrounding the pools is wetland v. upland? **(see Vernal Pools, Table, pg 46)**
	1-9	Page s18: Issues to be resolved should probably include receiving DEP permit and water quality certification (in addition to receiving Corps permit). **(see Permits, pg 37)**
	1-10	Section 1.1, Page 3: The Corps suggests that the most recent East-West Highway initiative and its relationship, if any, to the project purpose be fully discussed in the FEIS. **(see East-West Highway, pg 28)**
	1-11	Page 42, Section 2.3.1: It is important that the discussion of the No-Build Alternative and its depiction on the comparative matrices reflect the environmental and socio-economic effect of the anticipated maintenance and improvements and continued use of Route 46 (compared to the build alternatives). **(see Alternatives, No-Build Alternative-Maintenance, pg 20)**
	1-12	Page 42, Section 2.3.1: The discussion of the No-Build Alternative should fully address transportation, public safety, residential/business property, and community impacts/benefits. **(see Alternatives, No-Build Alternative, pg 22)**
	1-13	Page 45, Sections 2.3.2 - 2.3.4: Has DOT identified any actions that could be taken to address public concerns in Route 9? Would normal maintenance occur? Are there improvements that could be made to insure public safety concerns for walking, jogging, and biking along Route 9? **(see Alternatives, MaineDOT Actions, pg 19)**
	1-14	Page 56, Section 2.5: One notable next step that is not mentioned in the DEIS is the application to the MaineDEP for a permit and water quality certification. **(see Permits, pg 37)**
	1-15	Page 58, Exhibit 2.17: This table or footnotes to this table should clarify what the loss of vernal pool dispersal habitat is. Is it upland; is it wetland; or is it both? **(see Vernal Pools, Dispersal Habitat, pg 45)**
	1-16	Page 82, Exhibit 3.9: The DEIS now identifies the extent of dispersal habitat within 750' of vernal pools. The FEIS should clarify the relative of upland and wetland within this area. **(see Vernal Pools, Table, pg 46)**
	1-17	Page 173, Section 3.7.1.1: The DEIS notes that development in the vicinity of interchanges or intersections could impact small areas of wetlands. The FEIS should indicate what this is based on (resource mapping?). **(see Induced Development, Interchange and Intersection, pg 34)**
	1-18	Page 173, Section 3.7.2: The Corps previously noted that if any of the former Route 9 improvements projects are now due for maintenance and are proximate to the connector road, they should be noted in the cumulative impact section of the EIS and their impacts projected accordingly. **(see Cumulative Impacts, pg 27)**
	1-19	The Brewer Land Trust should be contacted to determine how future mitigation needs might mesh with their long-term planning and the FEIS updated accordingly. **(see Land Use, Brewer Land Trust, pg 34)**

Exhibit 1 - *Continued*

Received From		Comments
U.S. Environmental Protection Agency H. Curtis Spalding Regional Administrator (Attachment, pg 61-69)	2-1	More detail should be provided in the FEIS regarding wetland mitigation. A detailed mitigation plan will need to be developed to support any future permitting effort by the Corps under the Clean Water Act. We request the opportunity to participate in the development of the wetland mitigation plan as the project continues to advance through NEPA and Section 404 review. **(see Mitigation, pg 35)**
	2-2	The assumption on which the induced developed analysis is based may be flawed. There is no information presented to justify the projection that induced development will be restricted to a half-mile radius around the interchanges. The OregonDOT metholodology cited does not prescribe a half-mile radius, but instead indicates that the size of the study area should depend on the results of the preliminary traffic analysis. Larger travel time savings, new transportation corridors, and signficant amounts of vacant land within 1/2 to 1-mile of the project suggest a larger study are for indirect impacts. In development of the FEIS, FHWA and MaineDOT should reconsider what size study area makes sense given local development patterns, commuting patterns, transportation demand, and other factors, and if needed, redo the analysis. **(see Induced Development, Study Area Size, pg 33)**
	2-3	An analysis of induced development should estimate the development that would be induced by transportation improvements and would likely not occur but for the transportation improvement, at least through the design year. **(see Induced Development, Transportation Improvements, pg 33)**
	2-4	The FEIS should include an assessment of the environmental impacts of induced development. **(see Induced Development, Transportation Improvements, pg 33)**
	2-5	We encourage MaineDOT to work with the Town of Eddington to develop a strategy to preserve rights along this portion of the road (and possibly control the number of future driveway cuts) until funding becomes available for the project. **(see Induced Development, Town of Eddington, pg 34)**
	2-6	We recognize that growth rates in this study area are slower than in other parts of the state and region, but transportation projects have a long and well-known history of affected development patterns, which is why we recommend refinement of the inducted growth analysis to address this issue in the FEIS. **(see Induced Developments, Transportation Improvements, pg 33)**
	2-7	FHWA and MaineDOT should commit to the use of diesel retrofits, cleaner fuels, and idle reduction measures to minimize emissions from diesel construction equipment. **(see Construction Impacts, pg 26)**
	2-8	Storm water outfalls should be located as distant as possible from public and private supply wells. **(see Storm Water, pg 40)**
	2-9	We recommend that low-salt deicing practices be strictly observed by MaineDOT along the entire corridor to minimize impacts to aquatic life and in particular SWPAs that fall within the road alignments. MaineDOT should work to monitor current chloride concentrations in receiving waters in the project corridor to establish a baseline against which the project impacts can be tracked and evaluated. **(see Anti-icing, pg 25)**
	2-10	We recommend that effective BMPs be implemented during and after highway construction to reduce the water-quality impacts of stormwater discharges to surface water resources. **(see Storm Water, pg 40)**
U.S. Department of the Interior Andrew L. Raddant Regional Environmental Officer (Attachment, pg 70-74)	3-1	It will be important for the Administration and the MaineDOT to continue to work with the USFWS and other state and federal agencies to ensure that environmental impacts are avoided and minimized as much as practicable, should 2B-2 (or any other alternative) proceed to design and construction in the future. **(see Agency Coordination, pg 18)**
	3-2	It will be critical for the FHWA and MaineDOT to develop a compensatory mitigation plan that suitably compensates for the unavoidable loss of the wetlands, streams, and other natural resources as appropriate. **(see Mitigation, pg 35)**
	3-3	It would be helpful if the FEIS could offer some timeframe within which corridor preservation and ultimately construction are likely to occur. **(see Project Construction, pg 37)**
	3-4	If project construction is likely to be more than a few years from now, it would also be helpful if the FEIS could provide some context for how the FHWA and MaineDOT will consider new or changed information since the Record of Decision (ROD). **(see Project Construction, pg 37)**
	3-5	The DEIS notes that future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project. The DEIS does not indicate how such future development would be evaluated, if at all, at some time in the future when there is sufficient funding to proceed with construction of a preferred build alternative. **(see Future Development, Route 9, pg 32)**

Exhibit 1 - *Continued*

Received From		Comments
U.S. Department of the Interior Andrew L. Raddant Regional Environmental Officer (Attachment, pg 70-74)	3-6	Chapter 2, Section 2.5 page 57 – The seventh paragraph notes that it will take several years to finalize the engineering design before construction can begin. Yet the next sentence says that construction could begin in 2014, which is certainly less than several years from now or the likely issuance of a ROD and FEIS in the near future. Please clarify this timing issue. **(see Project Construction, pg 37)**
	3-7	It is difficult to visually connect the dots between the information presented about the affected environment and the environmental consequences of the three build alternatives. We recommend that all map exhibits in Chapter 3 show the three build alternatives that are being evaluated in the DEIS. **(see Maps, pg 35)**
	3-8	Chapter 3, Section 3.1.2.2 page 78 (also page 183) – In designing new road-stream crossings, we encourage the adoption of stream simulation design techniques that broadly consider aquatic organism passage and maintenance of natural stream functions rather than hydraulic design techniques that tend to focus on one target fish species for passage considerations, sometimes at the expense of other fish species and aquatic organisms. **(see Road-Stream Crossings, pg 38)**
	3-9	Chapter 3, Section 3.1.2.4 page 89 – The seventh paragraph gives a list of mammal species that have a very strong association with wetlands. Is this a generic list or are these mammal species that have been seen or would be expected to occur in wetlands in the study area? **(see Wildlife, pg 47)**
	3-10	Chapter 3, Section 3.1.4.1 Wildlife Habitat – As recommended previously, we still suggest that this section include the core maps from Maine's Beginning Habitat program instead of just including the map showing the undeveloped habitat blocks. **(see Wildlife, pg 46)**
	3-11	Chapter 3, Exhibit 3.16 – We recommend that a different color is used in the FEIS (not red) to show the existing utility corridors, because it is hard to differentiate between the utility corridors and the study area boundary. **(see Maps, pg 35)**
	3-12	Chapter 3, Section 3.1.4.1 Wildlife Habitat page 102 – The DEIS notes that two large wildlife passage structures will be located on both sides of Eaton Brook. We recommend that the FEIS explain why these particular locations were chosen, including the wildlife species that are targeted to use the structures. Were any particular wildlife movement corridors identified during field studies? **(see Wildlife, pg 46)**
	3-13	Chapter 3, Exhibit 3.22 – It would be helpful for the reader if the title for this figure gives the context for the term Significant Habitat. In this case, the term refers to those habitats regulated as significant under Maine's Natural Resources Protection Act. **(see Significant Habitat, Context, pg 39)**
	3-14	Chapter 3, page 105 – If the FHWA and MaineDOT have information to show that waterfowl breeding does not occur in the study area, then we recommend that the FEIS reflect this information. **(see Significant Habitat, Breeding, pg 39)**
	3-15	Chapter 3, page 106 – In the discussion of vernal pools, the FEIS should be clear on whether or not the impacts to amphibian dispersal habitat from the build alternatives would be strictly limited to upland habitat (as stated in the DEIS) or whether these impacts would actually occur in both upland and wetland habitats (the later usually being the case in the general study area). **(see Vernal Pools, Dispersal Habitat, pg 45)**
	3-16	Chapter 3, 3.1.5.1 Federal Endangered and Threatened Species – This section should note that if a build alternative is selected as the preferred alternative, then consultation under section 7 of the Endangered Species Act will be required to address effects to Atlantic salmon and its designated critical habitat. **(see Endangered and Threatened Species, Consultation, pg 31)**
	3-17	Chapter 3, Exhibit 3.22 and page 108 – As mentioned in the text on page 108, Exhibit 3.22 does not appear to show the location of two bald eagles nests that are located near the Penobscot River and Eaton Brook. Please add these nest locations to the Exhibit. **(see Significant Habitat, Eagle Nests, pg pg 39)**
	3-18	Chapter 3, 3.2.1 Climate Change, page 109 – As the USFWS has commented during past reviews of this chapter, increasing the size of new road-stream crossings (compared to the typical MaineDOT hydraulic design standard) would be an effective means to provide resilience to ecosystems in the face of the increasing numbers and severity of storms and floods as a result of climate change. **(see Road-Stream Crossings, pg 38)**
	3-19	Chapter 3, page 169 – The discussion related to indirect impacts to vernal pools from the loss of forested habitat around the pool should explain the origin of the 750 foot distance. **(see Vernal Pools, Indirect Impacts, pg 45)**
	3-20	Chapter 3, 3.8.1 Mitigation – The discussion of compensatory mitigation should be broader than just impacts to wetlands. **(see Mitigation, pg 35)**

Exhibit 1 - *Continued*

Received From	Comments
U.S. Department of the Interior Andrew L. Raddant Regional Environmental Officer (Attachment, pg 70-74)	3-21 Given the likely scope of impacts to wetlands and other natural resources from any of the build alternatives, it will be very important for the FHWA and MaineDOT to continue to coordinate closely with state and federal agencies in the development of a robust compensatory mitigation plan. **(see Mitigation, pg 35)** 3-22 Chapter 3, Fish Passage, page 183 – We suggest that this section be re-worked to include the broader topic of maintaining natural stream habitat and achieving aquatic organism passage in association with the construction of new road-stream crossings, rather than just addressing the narrow topic of fish passage. **(see Road-Stream Crossings, pg 38)** 3-23 If a build alternative is ultimately selected, the FHWA and MaineDOT have an opportunity to install new crossings that follow stream simulation principles and have minimal impact on stream function, habitat, and aquatic organism passage. **(see Road-Stream Crossings, pg 38)**
U.S. Coast Guard Gary Kassof Bridge Program Manager (Attachment, pg 75)	Structures crossing navigable waters may be subject to Coast Guard jurisdiction; as planning continues, continue coordination with the Coast Guard.
State Agencies	
Maine Department of Inland Fisheries and Wildlife Gregory Burr Regional Fisheries Biologist (Attachment, pg 76)	4-1 Both Felts Brook and Eaton Brook have high value eastern brook trout. **(see Water Resources, pg 46)** 4-2 Eddington and Holbrook Ponds have now been confirmed to have non-native invasive black crappie populations. (**see Water Resources, pg 46)**
Maine Historic Preservation Commission Robin K. Reed (Attachment, pg 77-78)	No historic properties affected.
Maine Natural Areas Program Don Cameron Ecologist (Attachment, pg 79)	5-1 According to our current information, there are no rare botanical features that will be disturbed within the project site. **(see Endangered and Threatened Species, Botanical Features, pg 31)**
Regional and Local Entities	
City of Brewer (Attachment, pg 80)	Resolve withdrawing support from the study
Town of Eddington (Attachment, pg 81)	Resolve withdrawing support from the study
Quoddy Pilots Bob Peacock (Attachment, pg 82)	Provided Information and Opinion
Town of Bucksport David Milan Economic Development Director (Attachment, pg 83)	Provided Information and Opinion

Exhibit 1 - *Continued*

Received From	Comments	
Interest Groups and Other Groups		
American Council of Engineering Companies of Maine John Melrose Executive Director (Attachment, pg 84)	6-1 6-2	We would urge the Department to consider and compare the quality of life impacts for residents under the no-build scenario and the 2B-2 option. 2B-2 should also compare very well in terms of relative safety and economic benefits for the region and the state. **(see Economic Environment, pg 30) (see Safety, pg 38)** It should be apparent that the construction of 2B-2 will also improve the viability of public and private investments in the Ports of Eastport, Searsport and Bucksport. **(see Economic Environment, pg 29)**
Associated General Contractors of Maine John O'Dea CEO (Attachment, pg 85)	Provided Information and Opinion	
Brewer Land Trust Linda Johns Brewer City Planner (Attachment A, pg 86-87)	7-1 7-2	The BLT has been working with landowners and developers to obtain conservation easements or fee ownership along Felts Brook. The Lowe's store, located in this vicinity, also has a portion of their property along Felts Brook under deeded conservation as part of their mitigation plan. **(see Land Use, Brewer Land Trust, pg 34)** There is an Inland Waterfowl/Wading Bird Habitat located at the existing I-395 interchange. Much of this land is currently protected by an 81-acre deed-restricted parcel as part of the Maritimes and Northeast Pipeline mitigation plan. **(see Significant Habitat, pg 40)**
Eastern Maine Snowmobilers Inc. Larry Lafland Trail Master and Project Director for Grants (Attachment A, pg 88-89)	8-1	There is a new map of the trail system for the EASTERN MAINE SNOWMOBILERS in Brewer, Holden, Eddington etc. **(see Community Facilities and Services, pg 26)**
Eddington-Clifton Civic Center Joshua Parda Director (Attachment A, pg 90-92)	9-1	Why is safety on Route 9 not a concern? **(see Safety, pg 38)**
Maine Better Transportation Association Maria Fuentes (Attachment A, pg 93)	Provided Information and Opinion	
Special Business Interests		
Eastern Maine Healthcare Systems Addy Dubois Director Property Management & Environmental Safety (Attachment, pg 94)	Submitted Plan of Future Development	
GAC Chemical David Colter President (Attachment A, pg 95)	10-1	Supports the Preferred Alternative. During the spring months when Route 46 is posted with weight limits, our trucks are forced to use alternate routes. **(see Traffic, Route 46, pg 42)**
Penobscot Bay & River Pilots Association David T. Gelinas Captain (Attachment A, pg 96)	Provided Information and Opinion	

Exhibit 1 - *Continued*

Received From	Comments
Pike Industries James Hanley (Attachment, pg 97)	Provided Information and Opinion
Sprague Energy James Therriault (Attachment, pg 98)	11-1 Supports the Preferred Alternative. This project will save us and many other businesses time and that will make us all more competitive and the economy of our region stronger. **(see Economic Environment, pg 29)**
Wyman and Simpson Doug Hermann (Attachment, pg 99)	Provided Information and Opinion

Received From	Location	Comments
Public		
Hilma H. Adams (Attachment, pg 100-102)	Eddington	12-1 There is an old Indian Encampment at the easterly end of my property and encompasses several other lots abutting mine. **(see Construction Impacts, Points of Interest, pg 26)** 12-2 The right to build, maintain and/or travel over my property was granted to Eastern Maine Snowmobile Club. **(see Trail Access, pg 44)** 12-3 Either route would land lock our duck hunting pond as I have hunters that come yearly to duck hunt in what we call Lil Dunkin Pond. **(see Construction Impacts, Points of Interest, pg 26)** 12-4 My husband's ashes are at the Waterfalls. **(see Construction Impacts, Points of Interest, pg 26)**
Larry Adams #1-15 (Attachment, pg 103-118)	Brewer	Provided Information and Opinion
Larry Adams #15a (Attachment, pg 118)	Brewer	13-1 If it was so important to have at least one alternative that connected on route 9 west of route 46, then why wasn't it just as important to have at least one alternative that had a route 9 connection point east of route 46 in the DEIS? **(see Alternatives, Route 9 Connections, pg 19)**
Larry Adams #16 (Attachment, pg 119)	Brewer	Provided Information and Opinion
Larry Adams #17 (Attachment, pg 120)	Brewer	14-1 The statutory changed to allow 100,000 pound trucks on the Interstate may change traffic patterns away from Route 46. Is there any data to back up that statement? **(see Traffic, Weight Restrictions, pg 43)**
Larry Adams #18 (Attachment, pg 121)	Brewer	15-1 How can it be considered safe and efficient traffic control to navigate 100,000# vehicles at 50 mph from the Clifton/Eddington town line, through the village of East Eddington at 35 mph and then traveling at speeds varying from 45 to 40 to 45 and back to 40 mph at the proposed 2B-2 connection point through all those 190 unrestricted access points? The multiple and varied speed limits alone, on this 4.5 mile segment of route 9, appears to go against the definition of an appropriate system linkage for this project. **(see System Linkage, pg 41)** 15-2 How do these 190 unrestricted access points fit in with the MaineDOT/FHWA definitions of safety, traffic congestion, traffic capacity and system linkage? **(see Access Management, pg 18)** 15-3 Before you spend $90+ million dollars, don't you think it may be prudent to verify the current traffic count and reassess your projected traffic counts? **(see Traffic, Truck Numbers, pg 43)**

Exhibit 1 - *Continued*

Received From	Location	Comments	
Larry Adams #19 (Attachment, pg 122-123)	Brewer	16-1	Is there really a traffic issue with Canadian truckers coming and going to Brewer? Is ME Route 9 the only route they can use? **(see Traffic, Canadian Truckers, pg 43)**
		16-2	Since the weight restriction was lifted in November of 2011, wouldn't it be prudent to do a new complete study of truck traffic from Canada to Brewer, Maine at the Calais entry point versus the Houlton entry point? **(see Traffic, Weight Restrictions, pg 43)**
		16-3	Isn't it fair to assume that the traffic numbers now in the DEIS may also be high? How can you base your decisions in the near-term on projected numbers? **(see Traffic, Economy, pg 42)**
		16-4	If traffic congestion was such an important need from the start of the study, why has the Study Group chosen to not bypass the whole section of Route 9 by bypassing the village of East Eddington as the Study clearly stated from the start? **(see Traffic, Congestion, pg 42)**
		16-5	Don't you think it may be appropriate to base your decisions on real up to date numbers and not projected numbers based upon 2006 and 2008 traffic data? **(see Traffic, Truck Numbers, pg 43)**
Larry Adams #20 (Attachment, pg 124)	Brewer	17-1	The private east west highway would do away with the need of the I-395/route 9 connector due to lack of traffic on route 9 as stated in MDOT's own 1999 Study. • Explain why the feasibility study of the privately funded East-West Highway should not halt the I-395/ Route 9 connector study until that feasibility study is reported out on by January 15th of 2013? • Explain how the I-395/Route 9 Connector Transportation Study can go forward without taking into account the projected loss of traffic in the route 9 corridor to and from the Canadian Provinces due to the proposed private East-West Highway. • Explain why the MaineDOT/FHWA sees no problem with spending $90+ million dollars on a connector that would have no traffic if the East/West private highway goes to construction based on this 1999 statement from a MaineDOT study: "would remove nearly all of the existing traffic off of Route 9"? **(see East-West Highway, pg 28)**
Larry Adams #21-22 (Attachment, pg 125-126)	Brewer	Provided Information and Opinion	
Larry Adams #23 (Attachment, pg 127-128)	Brewer	18-1	Some are saying that this project doesn't end with the construction of 2B-2; the deficiencies of this selection will end up with more construction in the near future; it's not out of the question to end up with an extension of 2B-2 to the Eddington/Clifton town line or you can dust-off the plans for the K bypass around the Village of East Eddington. Where are the guarantees that you won't be back in ten years to fix what should have been appropriately engineered in 2012? **(see Alternatives, Route 9 Connection, pg 19)**
Larry Adams #24 (Attachment, pg 129)	Brewer	19-1	Alternative 2B-2 squelches future development plans that the City of Brewer had for a hotel complex/conference center between CancerCare and I-395. **(see Future Development, Alternative 2B-2, pg 32)**
Larry Adams #25 (Attachment, pg 130-131)	Brewer	20-1	How would the 3EIK-2 route have fared if the footprint was only 200' in width and wouldn't the 4B alternative suddenly look a whole lot better? **(see Alternatives, 3EIK-2, pg 19)**
		20-2	Could the 3EIK-2 route have been successfully moved around the vernal pools if it was only a 200' wide footprint? How about 5A2E3K? **(see Vernal Pools, pg 44)**
		20-3	The biggest reason 4B was dismissed was because of extensive earthwork. Wouldn't a 200' footprint have fared better with that route? How about any of the route 1 upgrades? **(see Alternatives, 3EIK-2, pg 19))**
		20-4	Based on a $90 million dollar estimate for the construction of alternative 2B-2, from that same October meeting, $1.0 million dollars is only 1.1% of total $90 million dollar expenditure. Does the MaineDOT/FHWA find it appropriate for the Study Group to remove the possibility of a future upgrade that may be needed to insure the safety of this corridor based on an initial $1 million dollar expense? **(see Alternatives, Upgrade Alternative, pg 18)**

Exhibit 1 - *Continued*

Received From	Location	Comments	
Larry Adams #26-27 (Attachment, pg 132-136)	Brewer	Provided Information and Opinion	
Larry Adams #28 & 28A (Attachment, pg 137-144)	Brewer	21-1	How will storm runoff and snow clearing operations affect Atlantic Salmon habitat? **(see Endangered and Threatened Species, Storm Runoff, pg 31)**
		21-2	How does the MaineDOT/FHWA plan to limit damage to the Atlantic Salmon habitat now and in the future if this connector is approved and goes to construction? **(see Endangered and Threatened Species, Storm Runoff, pg 31)**
		21-3	How will this pollution source (stormwater runoff) affect the Atlantic Salmon habitat? **(see Endangered and Threatened Species, Storm Runoff, pg 31)**
Larry Adams #29-33 (Attachment, pg 145-155)	Brewer	Provided Information and Opinion	
Larry Adams #34 (Attachment, pg 156-157)	Brewer	22-1	At some point the economy will rebound, along with an increase in traffic numbers, and it will surely be before the year 2035 that you estimate for Route 9 traffic capacity. If the price of gas has that drastic of an effect on traffic numbers—have you factored that into your future numbers? **(see Traffic, Economy, pg 42)**
Larry Adams #35 (Attachment, pg 158)	Brewer	23-1	Where's the traffic issue on Route 9 if nearly all the existing traffic is removed by an E/W highway? **(see East-West Highway, pg 28)**
Larry Adams #36 (Attachment, pg 159-170)	Brewer	24-1	All decisions, since April 15, 2009 were made without scrutiny of the public and their elected officials—without knowledge and concurrence of any of the real stakeholders. **(see Public Coordination, pg 37)**
		24-2	When it was important for the Study Group to include the impacts of the 4.1 mile segment of Route 9 to make 2B-2 appear to be a viable option—the data from Route 9 was included; now that it is important for the Study Group to show the lowest cost and the least environmental impact of alternative 2B-2—the data is not included from the 4.1 mile segment of Route 9. You cannot separate alternative 2B-2 from the existing 4.1 mile segment of Route 9. **(see Alternatives, pg 23)**
		24-3	That statement, MaineDOT's latest talking point, is incorrect as: NO-BUILD has the least environmental impact and lowest estimated cost, by far. **(see Alternatives, No-Build Alternative, pg 20)**
		24-4	How can you buffer a nonsignificant vernal pool? If it is non-significant, it is just a puddle. **(see Vernal Pools, USACE Significance, pg 45)**
		24-5	Isn't it ridiculous that a property owner, like many of us living in my neighborhood, can be 80' from the right-of-way of the preferred alternative and not be considered directly or even indirectly impacted—yet frogs and salamanders and mosquitoes are guaranteed to be no closer than 750' of the proposed roadway? **(see Vernal Pools, Indirect Impacts, pg 45)**
Larry Adams #37 (Attachment, pg 164-161)	Brewer	25-1	How can the ACOE treat all vernal pools as significant (containing the specific amount of frogs and salamanders) whether they are significant or non-significant? **(see Vernal Pools, USACE Significance, pg 45)**
Larry Adams (Attachment, pg 171)	Brewer	Provided Information and Opinion	
Kenneth Arbo (Attachment, pg 172)	Brewer	Provided Information and Opinion	
Mike Atherton (Attachment, pg 172)	Bucksport	Provided Information and Opinion	

Exhibit 1 - *Continued*

Received From	Location	Comments	
Michael H. Ayer (Attachment, pg 173)	Holden	Provided Information and Opinion	
Paul Brody (Attachment, pg 174-175)	Brewer	26-1	How is the directive of the NEPA successfully met? **(see NEPA, pg 36)**
Richard Bronson (Attachment, pg 176-179)	Bangor	27-1	As seen east bound, beginning at the eastern end of I-395, stay on the existing Route 1A. This portion of 1A was once a four lane road. Why not return it to a four lane with a small barrier between the opposing traffic lanes. By leaving it as open access on the sides the businesses are still served. While the existing interchange between I-395 and Route 1A / Wilson Street would not need to be moved or changed it can be slightly altered to also be a "to reverse direction" facility. By then travelling on the existing right of way of Route 1A, as a four lane for a distance the connector traffic stream does not need to enter the area of or further alter Felts Brook at all. The route would pass west of the Holbrook School (and its athletic fields) while south of Holbrook Pond, west of the used portion of Edge of Town Road, staying west of Route 46 until north of Sweets Hill Road, then crossing Route 46, then running more or less parallel to 46, although back enough to be out of the area around the houses on 46, then cross Hatcase Pond Road, then across Blackcap Road, then crossing Bangor Water District Road (though no where near their water supply), then onto the existing Route 9 at or just east of the Eddington – Clifton town line. **(see Alternatives, Upgrade Variation, pg 21)**
Carl Brooks (Attachment, pg 180)	Not Provided	28-1	Why was the extension of I-395 on the railroad right-of-way to the Dedham line not among the alternatives considered? **(see Alternatives, Railroad Right-of-Way, pg 24)**
Bob Cattan (Attachment, pg 181)	Eddington	Provided Information and Opinion	
Patrick Doody (Attachment, pg 182)	Brewer	Provided Information and Opinion	
Roland Fogg (Attachment, pg 183)	Hampden	Provided Information and Opinion	
Rusty Gagnon (Attachment, pg 184-187)	Eddington	29-1	Increased traffic will result in more engine oil surface runoff creating more ground soil and water pollution in Davis Pond. **(see Environmental Impacts, pg 31)**
		29-2	We have an elementary school and middle school and students who are bused to Bangor, Brewer and surrounding area high schools. This requires a minimum of nine buses on Route 9 making frequent stops at least twice a day. In the winter months, it is still dark when the buses pick up the children at their driveways and close to dark when the children return. The project increase in commercial traffic will make it more dangerous for anyone, particularly children, at the side of the road. **(see Safety, pg 39)**
		29-3	Our weekly trash collection requires residents to place their trash containers and bags alongside Route 9 where the trash truck collects them, stopping at each driveway. **(see Community Facilities and Services, pg 26)**
		29-4	The Town of Eddington approved a new Master Zoning Ordinance and is structured to encourage business development. The connector ignores the Master Zoning Ordinance and destroys the business development plan. **(see Zoning, pg 47)**
		29-5	Documents obtained from the U.S. Corps of Engineers and MaineDOT indicate their work/studies/decisions are not based on Eddington's updated Master zoning plan. **(see Zoning, pg 47)**
		29-6	It is our understanding agreements were made between MaineDOT and the town of Brewer, when the I-395 ramps in Brewer were constructed, an agreement to protect the remaining area wetlands. This project violates that agreement. **(see Land Use, pg 34)**
		29-7	This connector brings no permanent or long-term financial benefit. **(see Economic Environment, pg 30)**

Exhibit 1 - *Continued*

Received From	Location	Comments	
William C. Gardner Jr. (Attachment, pg 188)	Brewer	Provided Information and Opinion	
John and Roberta Gray (Attachment, pg 189-190)	Holden	Provided Information and Opinion	
Richard Hatch (Attachment, pg 191)	Holden	Provided Information and Opinion	
Gretchen Heldmann (Attachment, pg 192-198)	Eddington	30-1	The MaineDOT did not use the Maine State Vernal Pool Assessment Form nor did they use any sort of standard method to gather vernal pool data. I asked for copies of the vernal pool field data sheets as part of my FOAA request and what I got was a mish mash of their own version of field data sheets and field notebooks with pages ripped out. When I asked about the discrepancy between MDIFW/MDEP and MDOT's ways of collecting info and whether they had looked for fairy shrimp since I saw no mention of them anywhere I received the following answer: Quote, we didn't look specifically for fairy shrimp and we did not make a big effort to look for them. If we had seen them we would have reported them. In terms of how our effort fits into the MDIFW requirements and the simple answer is that it doesn't and is not meant to. We have no plans of submitting any data collection forms to MDIFW as we don't own the land. When we identify an alternative and purchase rights of way we will re-census the new rights of way only and submit any necessary data from to MDIFW. I do not understand how one state agency is able to follow a different set of standards and guidelines than another. Please explain. **(see Vernal Pools, Assessment Form, pg 45)**
		30-2	What they do not provide that I could not find are totals, what is the total actual cost to mitigate noise for each route? **(see Noise, pg 36)**
		30-3	Neighborhoods are not being integrated if noise is not being mitigated. Please reconsider your priorities and the need for noise mitigation. **(see Noise, pg 36)**
		30-4	The study year was changed to reflect the downturn moving it out five years to 2035 from 2030. Where did that five year change come from? What data support a five year change? Why aren't more recent traffic count numbers being incorporated into analyses? **(see Traffic, Study Year, pg 44)**
Jane Hinckley (Attachment, pg 199)	Brewer	31-1	How will the truck traffic be able to merge east or west on Route 9 without endangering the safety of those traveling that stretch of the road, and disrupting the lives of those living nearby? **(see Safety, pg 39)**
		31-2	Since the change of weight restrictions on I-95, there have been no studies done to validate how traffic patterns have changed, and what the impact of the privately funded east-west highway will be on future traffic patterns. **(see Traffic, Weight Restrictions, pg 43)**
David Hocking (Attachment, pg 200)	Eddington	Provided Information and Opinion	
John Huskins (Attachment, pg 201)	Brewer	32-1	The satellite images used at the open houses did not show homes that have been recently built in what would be the right-of-way for 2B-2. **(see Land Use, Satellite Images, pg 35)**
Walter Kilbreth (Attachment, pg 201)	Kingfield	Provided Information and Opinion	
Larry Lancaster (Attachment, pg 202)	Eddington	33-1	Going west, keep the right lane as is, which would help the Fire Department when it has to go west on Route 9; a Yield sign at the connector road so we that live here can get to the new road; from the connector road east, keep the right lane and dead end it at the last house affected one beyond my house, that way we can get to our homes from the west. **(see Alternatives, Alignment Refinement, pg 22)**
		33-2	The connector road could be moved a few hundred feet east. **(see Alternatives, Refinement, pg 22)**

Exhibit 1 - *Continued*

Received From	Location	Comments
Marcia Lyford (Attachment, pg 203)	Eddington	34-1 There are accidents on the hill close to Route 1A during most snowstorms, blocking the road. **(see Safety, pg 39)**
Irene Rogers (Attachment, pg 204)	Dennysville	Provided Information and Opinion
Tammy Scully (Attachment, pg 205)	Belfast	Provided Information and Opinion
Carol and Vinal Smith (Attachment, pg 206)	Brewer	35-1 The safety issue of this connector has not been fully studied. Coming off a high speed road to a stop sign on a very, very busy Route 9 is an accident waiting to happen. **(see Safety, pg 39)**
Carol and Vinal Smith (Attachment, pg 207)	Brewer	Provided Information and Opinion
Judith R. Sullivan (Attachment, pg 208)	Orono	36-1 Is the only way Alternative 2B-2 works is to remove safety on Route 9 as a purpose? **(see Safety, pg 38)**
Mark and Julie Thompson (Attachment, pg 209)	Eddington	37-1 A toll booth at the suggested intersection proposed would at least help ease the financial burden the state has put us on once again. **(see Alternatives, Toll Booth, pg 18)**
Linda Tucker (Attachment, pg 210)	Not Provided	Provided Information and Opinion
Wendell Tucker (Attachment, pg 211)	Eddington	38-1 Has enough consideration been taken to the exit and entrance at Route 9 give the speed on the connector? **(see Safety, pg 39)**
John Van Dyke (Attachment, pg 212)	Brewer	39-1 If money is spent on the I-395 connector and [Peter Vigue's] toll highway is also approved, the use of Route 9 to I-395 will be less used over the faster toll road. **(see Alternatives, Toll Booth, pg 18)**
Joel D. Wardwell (Attachment, pg 213)	Bucksport	Provided Information and Opinion
John W. Wardwell (Attachment, pg 214)	Bucksport	Provided Information and Opinion
Mark Wellman (Attachment, pg 215)	Eddington	40-1 Given the immense amount or resources and time that has been invested in this project, the last minute changes forced upon our residents, and the never ending debate, I believe we should wait until a decision about the construction of an East-West highway is made before any further money or time is misspent. **(see East-West Highway, pg 28)**
Stephen Whitcomb (Attachmen, pg 216)	Not Provided	Provided Information and Opinion
Patricia T. Wilking (Attachment, pg 217-218)	Eddington	41-1 In an informal survey of 3-4 axle trucks using Route 46, we found there were 1,457 per week (+/-) or an average of 208 tractor-trailors a week, based on 7 days average. **(see Traffic, Survey, pg 42)**

Exhibit 1 - *Continued*

Received From	Location	Comments
The following entries refer to the transcript from the public hearing held in Eddington on May 2, 2012 (Attachment A, pg 210-293)		
Charles L. Baker Jr. (Attachment, pg 233-239)	Eddington	42-1 Do we still need this connector given under the recent discussion on the private tolled east/west highway? **(see East-West Highway, pg 28)** 42-2 Has your safety concerns changed with this increase of entering traffic onto 9? **(see Safety, pg 39)** 42-3 How can you demonstrate this additional traffic increase will be safer for our residents? **(see Safety, pg 39)** 42-4 There is no longer a concern about losing farmland? **(see Farmland, pg 31)** 42-5 Will this affect future development in town with restrictions placed on town zoning? **(see Future Development, pg 33)** 42-6 Given that the road has been changed from four lanes to two, please demonstrate how this road will be satisfactory until 2035. **(see Traffic, Study Year, pg 44)** 42-7 What will the impact on town services be after this is put in? Emergency services? **(see Community Facilities and Services, pg 26)**
Larry Adams (Attachment, pg 239-241, 291-292)	Brewer	Provided Information and Opinion
John Huskins (Attachment, pg 241-245)	Brewer	Provided Information and Opinion
Jerry Goss (Attachment, pg 242-236)	Brewer	Provided Information and Opinion
Joan Brooks (Attachment, pg 245-246)	Eddington	Provided Information and Opinion
John Williams (Attachment, pg 246-247)	Clifton	Provided Information and Opinion
Gretchen Heldmann (Attachment, pg 247-261)	Eddington	43-1 The MDOT did not use the Maine State Vernal Pool Assessment Form nor did they use any sort of standard method to gather vernal pool data. I asked for copies of the vernal pool field data sheets as part of my FOAA request and what I got was a mish mash of their own version of field data sheets and field notebooks with pages ripped out. When I asked about the discrepancy between MDIFW/ MDEP and MDOT's ways of collecting info and whether they had looked for fairy shrimp since I saw no mention of them anywhere I received the following answer: Quote, we didn't look specifically for fairy shrimp and we did not make a big effort to look for them. If we had seen them we would have reported them. In terms of how our effort fits into the MDIFW requirements and the simple answer is that it doesn't and is not meant to. We have no plans of submitting any data collection forms to MDIFW as we don't own the land. When we identify an alternative and purchase rights of way we will re-census the new rights of way only and submit any necessary data from to MDIFW. I do not understand how one state agency is able to follow a different set of standards and guidelines than another. Please explain. **(see Vernal Pools, Assessment Form, 45)** 43-2 What they do not provide that I could not find are totals, what is the total actual cost to mitigate noise for each route? **(see Noise, pg 36)** 43-3 Neighborhoods are not being integrated if noise is not being mitigated. Please reconsider your priorities and the need for noise mitigation. **(see Noise, pg 36)** 43-4 The study year was changed to reflect the downturn moving it out five years to 2035 from 2030. Where did that five year change come from? What data support a five year change? Why aren't more recent traffic count numbers being incorporated into analyses? **(see Traffic, Study Year, pg 44)**

Exhibit 1 - *Continued*

Received From	Location	Comments
Ben Pratt (Attachment, pg 261-265)	Eddington	44-1 I don't see how adding this preferred route and dropping traffic off 395 right onto Route 9 at the bottom the Meadowbrook Hill how that benefits anyone's safety, people on 46, people on 1A or certainly people on Route 9. I think you need to look more at that. **(see Safety, pg 38)**
Tom Vanchieri (Attachment, pg 265-266)	Eddington	Provided Information and Opinion
Judy Sullivan (Attachment, pg 267-275, 291)	Eddington	Provided Information and Opinion
Rusty Gagnon (Attachment, pg 275-283, 290-291)	Eddington	Provided Information and Opinion
Bruce Pratt (Attachmen, pg 283-285)	Holden	Provided Information and Opinion
Susan Dunham Shane (Attachment, pg 285-288)	Eddington	45-1 The zoning map for the Town of Eddington will have to be revised. You are operating not under our current zoning map. **(see Zoning, pg 47)** 45-2 In the study the truck numbers are from 1998 and as I mentioned in conversation this afternoon at the open house I believe that for people to have an accurate understanding there should be more recent data. **(see Traffic, Truck Numbers, pg 43)**
Representative David Johnson (Attachment, pg 288-289)	Eddington	Provided Information and Opinion
Jeremy Robertson (Attachment, pg 282, 288)	Clewleyville	Provided Information and Opinion
Susan Dunham Shane (Attachment, pg 292)	Eddington	46-1 The final study must include actual drawings and plans as to how the Route 46/9 intersection would be handled for the traffic flow and integration of Route 46. **(see Traffic, Drawings, pg 43)**
Jim Kurtz (Attachment, pg 292-295)	Eddington	Provided Information and Opinion
Rhodaleigh Berry (Attachment, pg 296-297)	Brewer	Provided Information and Opinion
Jane Newvey (Attachment, pg 296-297)	Brewer	Provided Information and Opinion
Carol Smith (Attachment, pg 297-299)	Brewer	Provided Information and Opinion

Exhibit 2 - *Responses to Substantive Comments*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
15-2	**Access Management:** How do these 190 unrestricted access points fit in with the MaineDOT/FHWA definitions of safety, traffic congestion, traffic capacity and system linkage?	Comment Noted. The MaineDOT manages access points with Maine's rules governing access management (driveway and entrance siting). Safety, traffic congestion, and system-linkage remains a priority concern of MaineDOT, as is preservation of the capacity of the existing highway system. Activities that could be considered to maintain safety and preserve the capacity of Route 9, in accordance with Maine's rules governing access management (driveway and entrance siting) can go no further than working with the town of Eddington to change zoning, eliminating existing and future curb cuts, and working with individual landowners to acquire property or development rights. That authority already exists to help both MaineDOT and the community ensure that safety is maintained in the corridor. MaineDOT has no authority beyond the existing Rules to force Eddington to do anything to help reduce traffic conflicts, but MaineDOT is directed by statute to work with Eddington to ensure safety and proper access to the state highway system.
3-1	**Agency Coordination:** It will be important for the FHWA and the MaineDOT to continue to work with the USFWS and other state and federal agencies to ensure that environmental impacts are avoided and minimized as much as practicable, should 2B-2 (or any other alternative) proceed to design and construction in the future.	No substantive comment requiring a change in the study or additional analysis. MaineDOT and FHWA will continue to work with the USFWS and other state and federal regulatory and resource agencies to ensure that environmental impacts are avoided and minimized to the extent practicable should a build alternative be selected and advanced to design and construction.
37-1; 39-1;	**Alternatives, Toll Booth:** A toll booth at the suggested intersection proposed would at least help ease the financial burden the state has put us on once again. If money is spent on the I-395 connector and this toll highway is also approved, the use of Route 9 to I-395 will be less used over the faster toll road.	No substantive comment requiring a change in the study or additional analysis. The MaineDOT preliminarily considered tolling as one method of partially financing the operation and maintenance costs of a build alternative. An analysis was performed and concluded that a traditional barrier tolling facility would generate revenue to cover the costs associated with the construction, operations, and maintenance costs of a toll facility and generate approximately $155,000 annually (in 2011 dollars) to supplement the operations and maintenance costs of one of the build alternatives. The analysis further concluded that an open-road toll facility would not generate enough revenue to cover the construction, operations, and maintenance costs of a toll facility (HNTB, 2010). Due to the small amount of revenue generated from a toll facility in comparison to the estimated cost of construction, MaineDOT is not considering tolling as a method of partially financing the operation and maintenance costs of a build alternative, if one is selected and advanced to design and construction. **For more information see East-West Highway, pg 28.**
20-4	**Alternatives, Upgrade Alternative:** Does the MaineDOT/FHWA find it appropriate for the Study Group to remove the possibility of a future upgrade that may be needed to insure the safety of this corridor based on an initial $1 million dollar expense?	No substantive comment requiring a change in the study or additional analysis. The 200-foot-wide right-of-way provides a sufficient width to allow a future upgrade if needed. With the 2008 economic downturn and increase in the price of gas, traffic in the study area has not grown as fast as previously forecast. MaineDOT believes the growth in traffic and traffic volumes originally forecast for Route 9 and rest of the study area for the year 2030 won't materialize until the year 2035. The need to widen beyond the 200-foot-wide right-of-way is beyond the reasonable foreseeable future time period.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-13	**Alternatives, MaineDOT Actions:** Has DOT identified any actions that could be taken to address public concerns in Route 9? Would normal maintenance occur? Are there improvements that could be made to insure public saftey concerns for walking, jogging, and biking along Route 9?	Comment Noted. MaineDOT would continue to maintain Route 9. The FHWA and MaineDOT do not view Route 9 as unsafe. As part of the scope development of the proposed project, MaineDOT will work with town officials to evaluate Route 9 for potential improvements to improve safety for pedestrians and bicyclists along Route 9. Providing safe access for pedestrians and bicyclists along the road system typically consists of paved shoulders, sidewalks in highly developed areas, high visibility crossings where warranted, and signage to help alert drivers of the presence of bicyclists and pedestrians on the road system. A road safety audit will be conducted in conjunction with town officials and residents to develop potential immediate and longer term improvements that the town can consider as options to improve safety for pedestrians and bicyclists.
20-1; 20-3	**Alternatives, 3EIK-2:** How would the 3EIK-2 route have fared if the footprint was only 200' in width and wouldn't Alternative 4B and the route 1 upgrade alternative suddenly look a whole lot better regarding earthwork?	Comment Noted. The direct impacts from the build alternatives described in Appendix C of the DEIS are based on the conceptual design of a two-lane highway prior to the identification of a range of alternatives retained for detailed study. The most notable potential impacts from Alternative 3EIK-2 were: wetlands - 42 acres; floodplains - 7.5 acres; notable wildlife habitat - 0.7 acre; undeveloped habitat - 1,437 acres; prime farmland - 11 acres; stream crossings - 6, prime farmland - 11 acres, and residential displacements - 3. Following the preliminary analysis of alternatives, vernal pools were considered. Alternative 3EIK-2 would directly impact three vernal pools and impact the habitat of an additional 110 vernal pools. The dispersal habitat potentially impacted by Alternative 3EIK-2 would be approximately 3,400 acres. The direct impacts from Alternative 4B described in Appendix C of the DEIS are based on the conceptual design of a two-lane highway. Alternative 4B would have required approximately 15.1 million cubic yards of earthwork to construct it; Alternative 2B-2 would require approximately 2.2 million cubic yards to construct it. Upgrading Route 1A and Route 46 to four-lane highways would not satisfy the purpose of the study and would not satisfy the system linkage and traffic congestion problems in the study area. The potential impacts from upgrading Route 1A and Route 46 are described in Appendix C of the DEIS. Upgrading Route 1A and Route 46 would require approximately 1.9 million cubic yards of earthwork to construct.
13-1; 18-1	**Alternatives, Route 9 Connection:** If it was so important to have at least one alternative that connected on route 9 west of route 46, then why wasn't it just as important to have at least one alternative that had a route 9 connection point east of route 46 in the DEIS? Where are the guarantees that you won't be back in ten years to fix what should have been appropriately engineered in 2012?	No substantive comment requiring a change in the study or additional analysis. In December 2009, the system-linkage need and Route 9 were reexamined in greater detail. Specifically, Route 9 was reexamined to understand more fully if it could reasonably accommodate the future traffic volumes that were foreseeable within the next 20 years. After careful consideration of those factors, the MaineDOT determined that Route 9, with the exception of the sections approaching the intersection of Routes 9 and 46 where the posted speed limit is lower than other segments of Route 9, could reasonably accommodate future traffic volumes for the next 20 years without additional improvements beyond the existing right-of-way. The MaineDOT continued its analysis of the Routes 9/46 intersection and concluded that the build alternatives, including those that use portions of Route 9, would improve the quality of traffic flow at the intersection of Routes 9 and 46 and other physically less intrusive improvements (e.g. as adding turn lanes), could be made to the intersection that would further improve the quality of traffic flow at the intersection. For these reasons, MaineDOT and FHWA dismissed alternatives that bypassed the intersection of Routes 9 and 46 to the north and east in favor of further consideration of alternatives that use Route 9. **For more information see Future Development, Route 9, pg 32.**

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-11	**Alternatives, No-Build Alternative-Maintenance:** It is important that the discussion of the No-Build Alternative and its depiction on the comparative matrices reflect the environmental and socio-economic effect of the anticipated maintenance and improvements and continued use of Route 46 (compared to the build alternatives).	Comment Noted. In the FEIS, the description of the No-Build alternative would be revised to provide a description of the types of maintenance activities included in the No-build alternative and their potential environmental and socio-economic impacts.
24-3	**Alternatives, No-Build Alternative:** MaineDOT's latest talking point, is incorrect as: NO-BUILD has the least environmental impact and lowest estimated cost, by far.	No substantive comment requiring a change in the study or additional analysis. If "environmental impact" is referring to only to the natural environment, the No-build Alternative would result in the least adverse impact; if "environmental impact" is referring to the broader human environment, to include the natural, social, and economic environments and their interaction and relationship, the No-build Alternative would not result in the least adverse impact. The No-Build Alternative serves as the baseline to which other alternatives and their consequences can be compared. The consequences for the No-Build Alternative have been studied and fully developed for the year 2035. The No-Build Alternative would not satisfy the study's purpose and need; to satisfy the study's purpose and some or all of the needs, a build alternative needs to be considered. The No-Build Alternative would result in continued adverse impacts to regional transportation connectivity and mobility and safety. Traffic would continue to use existing roads – primarily Route 1A and Route 46 – to travel between I-395 and Route 9. Over time, with increasing traffic congestion, the regional mobility, traffic congestion, and safety problems in the study area would worsen.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
27-1	**Alternatives, Upgrade Variation:** New Alternative - As seen east bound, beginning at the eastern end of I-395, stay on the existing Route 1A. This portion of 1A was once a four lane road. Why not return it to a four lane with a small barrier between the opposing traffic lanes. By leaving it as open access on the sides the businesses are still served. While the existing interchange between I-395 and Route 1A / Wilson Street would not need to be moved or changed it can be slightly altered to also be a to reverse direction facility. By then travelling on the existing right of way of Route 1A, as a four lane for a distance the connector traffic stream does not need to enter the area of or further alter Felts Brook at all. The route would pass west of the Holbrook School (and its athletic fields) while south of Holbrook Pond, west of the used portion of Edge of Town Road, staying west of Route 46 until north of Sweets Hill Road, then crossing Route 46, then running more or less parallel to 46, although back enough to be out of the area around the houses on 46, then cross Hatcase Pond Road, then across Blackcap Road, then crossing Bangor Water District Road (though no where near their water supply), then onto the existing Route 9 at or just east of the Eddington – Clifton town line.	No substantive comment requiring a change in the study or additional analysis. While the MaineDOT and FHWA did not study the alternative described exactly, the MaineDOT and FHWA studied, discussed, and dismissed two others that were very similar. The two alternatives are known as Alternative 1-4B and 1-4B-1. These were discussed and studied from late 2001 to late 2002 (PAC meetings 10 -15). They are similar to the alternative that is described, but differ in two areas: 1) departs Route 1A further to the east, and 2) crosses Route 46 further south. Alternative 1-4B crossed Route 46 to the south of the Holbrook School and paralleled Route 46 a bit more to the east to avoid and minimize impacts to the waters and wetlands surrounding Holbrook pond and Kidder Brook. These waters and wetlands are pretty expansive. While crossing Route 46 to the south of the Holbrook School and paralleled Route 46 a bit more to the east to avoid these waters and wetlands, Alternative 1-4B had impacts to waters and wetlands that were slightly greater than the alternatives the DOT and FHWA retained in the DEIS / 404 permit application. Alternative 1-4B also had a substantial impact to the operations at Camp Roosevelt Boy Scout Reservation and substantial earthwork as a result of the steep topography. Alternative 1-4B-1 had a couple of subtle differences from Alternative 1-4B-1 to try to further avoid and minimize impacts. These differences were connecting to Route 1A a little further west than Alternative 1-4B and connecting to Route 9 a little further east. Both of these subtle changes actually increased impacts, not decreased. These two alternatives were discussed with the federal cooperating agencies and other agencies that participate in the DOT's interagency meetings and the federal cooperating agencies concurred with dismissing these alternatives from further study.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
33-1	**Alternatives, Alignment Refinement:** New Alternative - Going west, keep the right lane as is, which would help the Fire Department when it has to go west on Route 9; a Yield sign at the connector road so we that live here can get to the new road; from the connector road east, keep the right lane and dead end it at the last house affected one beyond my house, that way we can get to our homes from the west.	No substantive comment requiring a change in the study or additional analysis. During final design, the MaineDOT would continue to refine the alignment and its right-of-way within the preferred corridor to further avoid and minimize impacts to the natural, social, and economic environments and to coordinate with those that are affected. The proposed intersection would be studied and further developed during final design and discussed at a future public meeting.
33-2	**Alternatives, Refinement:** The connector road could be moved a few hundred feet east.	No substantive comment requiring a change in the study or additional analysis. During final design, the MaineDOT would continue to refine the alignment and its right-of-way within the preferred corridor to further avoid and minimize impacts to the natural, social, and economic environments and to coordinate with those that are affected.
1-12	**Alternatives, No-Build Alternative:** The discussion of the No-Build Alternative should fully address transportation, public safety, residential/business property, and community impacts/ benefits.	No substantive comment requiring a change in the study or additional analysis. The consequences of the No-Build Alternative and its impacts to transportation, public safety, residential/business property, and community impacts/benefits have been fully developed and presented in the FEIS.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-4	**Alternatives, Final Document:** The final document must provide greater clarification as to why Alternative 2B-2 was not preferred at one time and now is.	Comment Noted. During the study, it appeared that other alternatives would best satisfy the study purpose and needs. The MaineDOT and FHWA studied those alternatives until it became clear that 1) those alternatives would result in greater adverse environmental impacts than Alternative 2B-2, and 2) Route 9 had adequate capacity and would continue to operate at an acceptable level of service and operating speed up to and beyond the year 2035 (the time period that has been determined to be reasonably foreseeable). On three occasions during the study, Alternative 2B-2 (including earlier versions Alternative 2B and 2B-1) was dismissed from the range of reasonable alternatives considered for satisfying the study purpose and needs only to be added back to the range of alternatives considered. On each occasion, the DOT, in consultation with the PAC, dismissed it and, in subsequent discussions with the Federal cooperating agencies, reconsidered it because it was practical and resulted in less adverse environmental impacts than other alternatives. A preferred alternative that best satisfies the study purpose and needs with the least adverse environmental impact was not identified prior to the identification of Alternative 2B-2 as the preferred alternative in the DEIS. After careful consideration of the range of alternatives developed in response to the study's purpose and needs and in coordination with its cooperating and participating agencies, MaineDOT and the FHWA identified Alternative 2B-2 as their preferred alternative because the MaineDOT and the FHWA believe it best satisfies the study purpose and needs, would fulfill their statutory mission and responsibilities, and has the least adverse environmental impact between the present time and the design year 2035. In identifying Alternative 2B-2 as their preferred alternative, MaineDOT and the FHWA believe they have identified the environmentally preferable alternative because it best meets the purpose and needs for the study; causes the least damage to the biological and physical environment; and best protects, preserves, and enhances the historic, cultural, and natural resources of the study area.
24-2	**Alternatives:** When it was important for the Study Group to include the impacts of the 4.1 mile segment of Route 9 to make 2B-2 appear to be a viable option—the data from Route 9 was included; now that it is important for the Study Group to show the lowest cost and the least environmental impact of alternative 2B-2—the data is not included from the 4.1 mile segment of Route 9. You cannot separate alternative 2B-2 from the existing 4.1 mile segment of Route 9.	No substantive comment requiring a change in the study or additional analysis. No changes to Route 9 are proposed as part of the build alternatives. The additional traffic that would use Route 9, in conjunction with the build alternatives, is reported in the DEIS/Section 404 permit application supporting information.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
28-1	**Alternatives, Railroad Right-of-Way:** Why was the extension of I-395 on the railroad right-of-way to the Dedham line not among the alternatives considered?	No substantive comment requiring a change in the study or additional analysis. An alternative on or along the Calais Branch to the Dedham town line was not considered because it would not satisfy the purpose of the study and system linkage need. An alternative along the Calais Branch to the Dedham town line would address north–south traffic, but would not address east – west traffic which is one of the purposes of the study. Additionally, it would result in significant direct and indirect impacts to wetlands, floodplains, and habitat.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
2-9	**Anti-icing:** Low-salt deicing practices should be strictly observed by MaineDOT along the entire corridor to minimize impacts to aquatic life and in particular SWPAs that fall within the road alignments. MaineDOT should work to monitor current chloride concentrations in receiving waters in the project corridor to establish a baseline against which the project impacts can be tracked and evaluated.	Comment Noted. As part of winter maintenance, anti-icing chemicals with chlorides (i.e., primarily rock salt) are used to combat the effects of snow, sleet, and ice. MaineDOT normally uses an average of between 8 and 14 tons per lane mile, per winter, depending on the severity of the winter. MaineDOT consistently has the lowest average salt use per lane mile among New England DOTs. The use of anti-icing materials for winter maintenance would not impact the availability of potable water supplies. MaineDOT investigates and evaluates snow and ice-control industry standards and updates its salt-priority program to use salt judiciously while providing safe and effective traffic movement. In the unlikely event that a localized issue is observed, MaineDOT would implement corrective actions as mandated by state law (23 MRSA § 652). The project will be designed in compliance with applicable Maine water quality standards and with the requirements of the Section 401 Water Quality Certification. MaineDOT has collaborated with the Margaret Chase Smith Policy Center at the University of Maine to publish a study entitled MaineDOT's winter maintenance activities: *Maine Winter Roads: Salt, Safety, Environment and Cost*. The goals identified in the study include: maintain safety while reducing salt and sand use; reduce salt use through improved practices, new materials and equipment, and changes in levels of service; and increase public awareness of winter practices, costs, and environmental impacts. The key findings from the study are: • Anti-icing practices are being widely adopted by state agencies across the U.S. MaineDOT, Maine Turnpike Authority and some municipalities have incorporated anti-icing practices. • Eighteen percent of the State of Maine's public roads are maintained by MaineDOT, one percent by the Maine Turnpike Authority with the remaining eighty one percent being maintained by 488 municipalities and three Indian reservations. • Using federal guidelines for the costs of injuries and deaths, Maine accident data show a 10 year average cost of $1.5 billion dollars annually. • In winter months between 1989 and 2008, there was a significant reduction in the number of fatalities on state highways. This reduction does not occur on town roads and state-aid highways. This is consistent with the finding of a statistically significant decrease in fatalities on state highways since MaineDOT's anti-icing policy was implemented. It is unknown whether the anti-icing policy is the cause of the decrease. Since the mid-1990s MaineDOT has adopted procedures recommended by the FHWA for anti-icing. MaineDOT uses anti-icing chemicals to maintain safer roadways for the traveling public. MaineDOT is continually investigating and evaluating snow and ice control methods, and updating its maintenance program to balance maintaining water quality with providing safer conditions for the public. Early application of salt brine and rock salt are being used on many roads to prevent snow and ice from bonding to the road surface. This anti-icing application reduces the amounts of anti-icing chemicals used. This approach reduces the amount of chlorides and sodium in highway runoff. MaineDOT snow and ice control operations are guided by a policy which classifies the level of service of roadways by priority corridors. Each level of service has a defined cycle of service time, plow route length, and prescribed amount of time to return the road to normal winter driving conditions. • Priority 1 corridors (26% of total miles maintained by MaineDOT) will be treated and bare pavement provided following a storm as soon as practicable, at most within 3-6 daylight hours. • For Priority 2 corridors (36% of total miles maintained by MaineDOT) bare pavement will be restored as soon as practicable after Priority 1 corridors, and within 8 daylight hours. Pre-treatment is provided on Priority 1 and 2 corridors to prevent ice from bonding with the road surface. • Priority 3 corridors (38% of total miles maintained by MaineDOT) are treated within 24 hours, providing one-third bare pavement in the middle of the road as soon as practicable. For Priority 3 corridor sand routes, roads will be plowed and sand applied, yet the road surface may be snow covered during a storm. MaineDOT practices pre- and post-construction sampling of potable water supplies to ensure that any impacts from construction are noted and remediated. MaineDOT is required by law to remediate any impacts to potable water supplies from winter maintenance activities. MaineDOT's winter maintenance program is centered on minimizing the use of any anti-icing chemical; however, when necessary for public safety, MaineDOT uses Ice-B-Gone, which was noted by EPA to be a "green" anti-icing material.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
29-3	**Community Facilities and Services:** Our weekly trash collection requires residents to place their trash containers and bags alongside Route 9 where the trash truck collects them, stopping at each driveway.	Comment Noted. The need for trash pick-up and stop and go traffic along Route 9 and the other roads in the study area will be noted in the FEIS. Route 9 has sufficient shoulder width to allow trash trucks to operate on the shoulder of the road and vehicles to operate in the travel lane.
8-1	**Community Facilities and Services:** There is a new map of the trail system for the EASTERN MAINE SNOWMOBILERS in Brewer, Holden, Eddington ect.	Comment Noted. The new Eastern Maine Snowmobilers trail system data will be added to the FEIS.
42-7	**Community Facilities and Services:** What will the impact on town services be after this is put in? Emergency services?	No substantive comment requiring a change in the study or additional analysis. The build alternatives would not increase traffic west of Eddington School. Town services would continue to operate without change. The build alternatives would positively impact emergency responders by reducing traffic along Route 1A and decreasing emergency vehicle response times. If a crash occurs on the I-395/Route 9 connector, local emergency response services would need to respond. In the DEIS, it was reported Alternative 2B-2/the Preferred Alternative would impact approximately 20 percent of Eastern Maine Healthcare's parking lot. Subsequent to circulation of the DEIS and the public hearing, MaineDOT investigated the location of the proposed on-ramp to I-395 from Route 1A and believes it can avoid the parking lot. Avoidance of the parking lot would be studied and further developed during final design and discussed at a future public meeting.
12-1; 12-3; 12-4	**Construction Impacts, Points of Interest:** There is an old Indian Encampment , a duck hunting pond called Lil Dunkin Pond, and waterfalls in the study area.	No substantive comment requiring a change in the study or additional analysis. The SHPO investigated the area and determined that no archaeological properties would be affected by Alternative 2B-2/the Preferred Alternative and no further investigation was required.
2-7	**Construction Impacts:** FHWA and MaineDOT should commit to the use of diesel retrofits, cleaner fuels, and idle reduction measures to minimize emissions from diesel construction equipment.	Comment Noted. There would be temporary impacts to air quality and noise during construction from the operation of equipment. Proper implementation and maintenance of control measures (e.g., dust/erosion and sedimentation controls, properly fitted emission control devices and mufflers, etc.) would be used to minimize the temporary impacts. During final design, MaineDOT would consider opportunities to specify the use of diesel retrofits, cleaner fuels, and idle reduction measures to minimize emissions from diesel construction equipment. Temporary impacts would cease upon completion of construction.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-18	**Cumulative Impacts:** The Corps previously noted that if any of the former Route 9 improvements projects are now due for maintenance and are proximate to the connector road, they should be noted in the cumulative impact section of the EIS and their impacts projected accordingly.	No substantive comment requiring a change in the study or additional analysis. There are no other sections of Route 9 that were reconstructed proximate to the I-395/Route 9 connector due for reconstruction in the reasonably foreseeable future.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-6; 1-10; 17-1; 23-1; 40-1; 42-1	**East-West Highway:** MaineDOT should wait until a decision about the construction of an East-West highway is made before any further money or time is misspent. Do we still need this connector given under the recent discussion on the private tolled east/west highway? The relationship of the new East-West Highway initiative to this project's purpose and need needs to be better addressed in the FEIS. • Explain why the feasibility study of the privately funded East-West Highway should not halt the I-395/ Route 9 connector study until that feasibility study is reported out on by January 15th of 2013? • Explain how the I-395/ Route 9 Connector Transportation Study can go forward without taking into account the projected loss of traffic in the route 9 corridor to and from the Canadian Provinces due to the proposed private East-West Highway. • Explain why the MaineDOT/FHWA sees no problem with spending $90+ million dollars on a connector that would have no traffic if the East/ West private highway goes to construction based on this 1999 statement from a MaineDOT study: "would remove nearly all of the existing traffic off of Route 9"?	Comment Noted. The purposes and needs of this study and its solutions lie specifically in the study area shown in the DEIS. The East-West Highway has its own purposes, needs, and solutions in a different area. There has been much recent discussion about not needing a connection to the Interstate system in the I-395/ Route 9 study area because a proposed new East-West highway would meet the system-linkage need between I-395 and Route 9. MaineDOT and FHWA will continue to consider the I-395/Route 9 Transportation Study because the East-West highway would not satisfy the purpose and needs of the study. Specifically: • The system linkage need would not be satisfied. o The I-395/Route 9 connector provides a distinct and more southerly connection. The traffic between the Canadian Maritime Provinces and the New England states is different from the traffic from the Maritime Provinces that want to travel to the larger markets of Quebec, Ontario, and the Midwestern United States to the West. o The I-395/Route 9 connector is more sub-regional and local in nature. Only 1% of the traffic studied in the 1998 Origin-Destination Study traveled from the Maritime Provinces to other western Canadian destinations. o The portions of Routes 1A and 46 in the study area would not provide an operationally efficient transportation facility for regional connectivity and mobility through the study area. • The traffic congestion need would not be satisfied. Traffic would continue to operate at unacceptable quality of traffic flow and speed on Route 1A.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
6-2; 11-1	**Economic Environment:** It should be apparent that the construction of 2B-2 will also improve the viability of public and private investments in the Ports of Eastport, Searsport and Bucksport.	Comment Noted. The construction of Alternative 2B-2/ the Preferred Alternative would improve the viability of public and private investments in the Ports of Eastport, Searsport and Bucksport and will be noted in the FEIS.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
6-1; 29-7	**Economic Environment:** This connector brings no permanent or long-term financial benefit. 2B-2 should also compare very well in terms of relative economic benefits for the region and the state.	No substantive comment requiring a change in the study or additional analysis. Alternative 2B-2/the Preferred Alternative would improve safety by reducing the number of crashes over the No-build alternative. With Alternative 2B-2/the Preferred Alternative, modeled crash costs would provide an estimated savings of $5,117,000 (approximately 28 percent) over the No-Build Alternative, in the year 2035. To estimate the potential costs associated with the range and number of predicted crashes, mean cost data were derived as composite results from the Federal Highway Administration's Crash Cost Estimates by Maximum Police- Reported Injury Severity within Selected Crash Geometries (FHWA, 2005) using undefined crash-geometry estimates. Mean-cost data used were comprehensive estimates, including costs for medical treatment, emergency services, property damage, lost productivity, and adverse effects on quality of life. The crash costs were adjusted to 2011 value using the Consumer Price Index (CPI) for capital-cost components (i.e., medical treatment, emergency services, property damage, and lost productivity) and the Employment Cost Index for quality-of-life effects. Net present-value cost savings for passenger-vehicle drivers and freight-truck drivers would be approximately $ 417,000 (six percent) with Alternative 2B-2/the Preferred Alternative over the No-Build Alternative, in the year 2035. To illustrate the mobility benefits of implementation of a build alternative, Vehicle Hours Traveled and Vehicle Miles Traveled changes were monetized and compared to the No-Build Alternative. Monetized benefits for VMT were calculated using only typical variable vehicle-operating costs (i.e., fuel and oil, repair and maintenance, and tires) for passenger vehicles and freight trucks. For passenger vehicles, the average variable operating cost per mile of $0.1774 (a composite value considering costs of small, medium, and large size automobiles) was based on American Automobile Association (AAA) data for 2011. Freight-truck per-mile variable costs of $0.65 were developed using 2010 data from the American Transportation Research Institute (ATRI). Monetized benefits for VHT were calculated using variable vehicle-operating costs, fixed vehicle operating costs (i.e., vehicle financing, insurance, taxes, license and registration, and depreciation), and operator-based costs (i.e., value of personal time, considering wages, benefits, and trip purpose). VHT and monetized savings would be approximately $2,801,000 (16 percent) with Alternative 2B-2/the Preferred Alternative over the No-Build Alternative, in the year 2035. The FHWA estimates that for every $1 million in highway infrastructure investment, approximately 28 full-time equivalent jobs are created. These jobs include approximately nine direct jobs, five indirect jobs, and 14 induced jobs (New England Council, 2008). This employment increase represents the total number of jobs created; although these jobs would not be created necessarily in Penobscot County, it is likely that a small increase in employment at the local and county levels would result. Construction of the build alternatives would cost between $61 million and $81 million, creating approximately 1,700-2,300 full-time jobs. Reference: Federal Highway Administration (FHWA). Employment Impacts of Highway Infrastructure Investment. Accessed December 17, 2008. The build alternatives would result in a reduction in tax revenue in Brewer, Holden, and Eddington because the land converted to transportation use would no longer be tax-eligible. The decreases in revenue represent less than two percent of total tax revenues in each municipality. MaineDOT and the State of Maine aren't required to make up lost tax revenue as a result of improvements to the highway system. New business may develop in the area adjacent to the improved access to the interstate system partially offsetting the initial loss of tax revenue. This has occurred in many parts of the state where new interchanges or improved access has been developed.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
5-1	**Endangered and Threatened Species, Botanical Features:** There are no rare botanical features that will be disturbed within the project site.	Comment Noted. There are no rare botanical features that will be disturbed within the project site and this statement will be noted in the FEIS.
3-16	**Endangered and Threatened Species, Consultation:** Consultation under section 7 of the Endangered Species Act will be required to address effects to Atlantic salmon and its designated critical habitat.	Comment Noted. The Federal Endangered Species Act requires that all Federal agencies consult with the USFWS and/or NOAA National Marine Fisheries Service to determine if actions of an agency will have any effect on species listed under the Act and to avoid any actions that may jeopardize the continued existence of the species. For the study, the FHWA is formally consulting on the effects of a new highway connector between I-395 and Route 9 in the towns of Eddington and Holden, and the City of Brewer. The consultation process is concluded when USFWS issues a biological opinion that makes a determination of effect that includes terms and conditions of approval, a statement for potential 'take', and conservation recommendations.
21-1; 21-2; 21-3	**Endangered and Threatened Species, Storm Runoff:** How will storm runoff and snow clearing operations affect Atlantic Salmon habitat? How does the MaineDOT/FHWA plan to limit damage to the Atlantic Salmon habitat now and in the future if this connector is approved and goes to construction?	Comment Noted. An increase in the potential for sediment loading and roadway contaminants introduced to surface waters (including those that contain Atlantic salmon) exists for the No-Build Alternative and the build alternatives. Impacts from sedimentation caused by construction would be temporary. During final design, a highway drainage system would be designed to minimize the transport of sediments and other particulates to surface waters. Erosion and sedimentation control measures would be incorporated into the design and implemented during construction in accordance with Section II of the MaineDOT's Best Management Practices Manual for Erosion and Sedimentation Control and designed in accordance with the MDEP/MaineDOT Memorandum of Agreement, Stormwater Management, November 14, 2007 and Chapter 500 Rules. Redundancy of controls would be included in each watershed that would be impacted to minimize potential control failures that could deliver sediment laden runoff to streams.
29-1	**Environmental Impacts:** Increased traffic will result in more engine oil surface runoff creating more ground soil and water pollution in Davis Pond.	No substantive comment requiring a change in the study or additional analysis. Surface runoff to Davis Pond from Route 9 and Route 46 will be the same for the No-Build and build alternatives regardless of the change in traffic volumes on these two highways.
42-4	**Farmland:** There is no longer a concern about losing farmland?	No substantive comment requiring a change in the study or additional analysis. The U.S. Farmland Protection Policy Act (FPPA) (7 USC §§ 4201-09) was enacted to prevent the unnecessary or irreversible conversion of these soil types to nonagricultural uses, even if the soils are not necessarily in agricultural use. The No-Build Alternative and build alternatives would not result in a substantial impact to farmland and farming operations. The MaineDOT, the FHWA, and the NRCS performed an analysis of the potential impacts of the build alternatives to farmland and farming operations in accordance with the FPPA; Form NRCS-CPA-106 was completed. The build alternatives resulted in scores from 49 to 57 of a possible 260. Please refer to FPPA, Form NRCS-CPA-106 for the score meanings. Because the scores for the build alternatives are less than 160, no further coordination was required and none of the build alternatives would result in a significant impact to farmland.
1-1	**FEIS:** needs to be a stand-alone NEPA document. Any references to supporting a Corps 404 permit application that are contained in the document, e.g. Section 1.8, Page 23, should probably be stricken or re-written.	Comment Noted. The cover of the FEIS will identify the FEIS and the text will be reviewed to ensure consistency when referring to the permit application and information supporting the permit application.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
19-1	**Future Development, Alternative 2B-2:** Alternative 2B-2 squelches future development plans that the City of Brewer had for a hotel complex/conference center between CancerCare and I-395.	No substantive comment requiring a change in the study or additional analysis. Alternative 2B-2/the Preferred Alternative would not preclude future development in this area. In the DEIS, it was reported Alternative 2B-2/ the Preferred Alternative would impact approximately 20 percent of Eastern Maine Healthcare's parking lot. Subsequent to circulation of the DEIS and the public hearing, MaineDOT investigated the location of the proposed on-ramp to I-395 from Route 1A and believes it can avoid the parking lot. Avoidance of the parking lot would be studied and further developed during final design and discussed at a future public meeting.
1-2; 3-5	**Future Development, Route 9:** The DEIS notes that future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project. The DEIS does not indicate how such future development would be evaluated, if at all, at some time in the future when there is sufficient funding to proceed with construction of a preferred build alternative.	Comment Noted. The DEIS contains discussion of working with the town of Eddington to maintain safety and preserve the capacity of Route 9 in the study area. Activities that could be considered to maintain safety and preserve the capacity of Route 9, in accordance with Maine's rules governing access management (driveway and entrance siting) can go no further than working with the town of Eddington to change zoning, eliminating existing and future curb cuts, and working with individual landowners to acquire property or development rights. That authority already exists to help both MaineDOT and the community ensure that safety is maintained in the corridor. MaineDOT has no authority beyond the existing rules to force Eddington to do anything to help reduce traffic conflicts, but MaineDOT is directed by statute to work with Eddington to ensure safety and proper access to the state highway system. Today, the current AADT along Route 9 in Eddington between the terminus of the Alternative 2B-2 and the Route 46 intersection is approximately 5,000 vehicles per day. The posted speed in this section of Route 9 is predominantly 45 mph, with 35 mph near the Route 46 intersection. Traffic on Route 9 can comfortably travel at the current posted speeds. This segment of Route 9 was constructed to a width that meets current National Highway System standards for 2-lane highways (12-foot travel lanes and 8-foot shoulders). With Alternative 2B-2, the 2035 AADT along this segment of Route 9 is forecast to be approximately 12,000 vehicles per day. At that level of traffic flow, Route 9 can easily be maintained at the current posted speeds. There are many locations in Maine where AADTs of 15,000 to 17,000 are accommodated on 2-lane highways with 35-to-50 mph speeds. Many of these locations have more intense commercial development than Route 9 in Eddington. This indicates that traffic volume growth on Route 9 can be accommodated well beyond the year 2035. As part of its planning process, MaineDOT regularly monitors traffic volume and traffic safety trends on all state highways, including Route 9. Traffic volumes are updated every three years, and crash data is reviewed annually to identify emerging conditions that would compromise safety and mobility. MaineDOT regulates development access to Route 9 through application of access management rules. These rules require a new development to provide safe access and maintain adequate mobility on the highway. One way of maintaining safety and mobility along Route 9 as future development occurs is by establishing turn lanes where needed to minimize conflicts between turning traffic and through traffic. This treatment improves the safety of turns while maintaining or improving the flow of through traffic. There are examples in Maine where AADTs of 17,000 to 19,000 are accommodated on 3-lane highways (which have a 2-way left turn lane between the through lanes) with 40-to-50 mph speeds. Route 9 is adaptable ***within the existing Right-of-Way*** to this type of treatment, if conditions warrant. With the capacity to accommodate much more than the forecasted traffic, the regular monitoring of safety and mobility conditions by MaineDOT, and the ability to accommodate additional development in a safe and efficient manner, the transportation benefits of Alternative 2B-2 should be sustainable well beyond 2035.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
42-5	**Future Development:** Will this affect future development in town with restrictions placed on town zoning?	No substantive comment requiring a change in the study or additional analysis. Maine's rules governing access management (driveway and entrance siting) can go no further than working with the towns to change zoning, eliminating existing and future curb cuts, and working with individual landowners to acquire property or development rights. That authority already exists to help both MaineDOT and towns ensure that safety is maintained. MaineDOT has no authority beyond the existing rules to force towns to do anything to help reduce traffic conflicts, but MaineDOT is directed by statute to work with towns to ensure safety and proper access to the state highway system.
2-3; 2-4; 2-6	**Induced Development, Transportation Improvements:** An analysis of induced development should estimate the development that would be induced by transportation improvements and would likely not occur 'but for' the transportation improvement, at least through the design year and include an assessment of environmental impacts.	Comment Noted. Induced development would occur for commercial and residential uses and were included in the analysis in the FEIS.
2-2	**Induced Development, Study Area Size:** In development of the FEIS, FHWA and MaineDOT should reconsider what size study area makes sense given local development patterns, commuting patterns, transportation demand, and other factors, and if needed, redo the analysis.	No substantive comment requiring a change in the study or additional analysis. MaineDOT and FHWA have considered the study area used for the assessment of induced development in light of local access factors and geographic or other barriers and believe the area used was appropriate. MaineDOT and FHWA would add to the discussion supporting the study area used for the analysis of induced growth in the FEIS. Because the build alternatives are intended to serve long-distance through- and regional-traffic, development induced by them likely would be traveler-oriented businesses (e.g., commercial uses such as gasoline stations, motels, restaurants, and convenience stores) within approximately a half-mile of the interchanges and intersections. The farther removed in distance and time from the interchange and intersection, the less induced growth effects can be expected. Oregon DOT's Guidebook for Evaluating the Indirect Land Use and Growth Impacts of Highway Improvements suggests studying a half-mile radius surrounding a highway improvement as the primary area of induced growth (Oregon DOT, 2001). The affected area of induced growth is limited because the build alternatives would have controlled access, the population growth rate in the study area is low, and local zoning precludes intensive development. The projected population for 2020 is expected to experience minor changes from existing levels: Brewer is projected to experience a decrease in population of about 0.8 percent; Holden is projected to experience an increase in population of about 8 percent; and Eddington is projected to experience an increase in population of about 5.7 percent by 2020. Most of the land in the study area is zoned agricultural and rural residential limiting development. Development will occur in the study area, whether or not the build alternatives are constructed.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
2-5	**Induced Development, Town of Eddington:** MaineDOT should work with the Town of Eddington to develop a strategy to preserve rights along this portion of the road (and possibly control the number of future driveway cuts) until funding becomes available for the project.	Comment Noted. The MaineDOT would work with the town of Eddington to maintain safety and preserve the capacity of Route 9 in the study area. Activities that could be considered to maintain safety and preserve the capacity of Route 9, in accordance with Maine's rules governing access management (driveway and entrance siting) can go no further than working with the town of Eddington to change zoning, eliminating existing and future curb cuts, and working with individual landowners to acquire property or development rights. That authority already exists to help both MaineDOT and the community ensure that safety is maintained in the corridor. MaineDOT has no authority beyond the existing rules to force Eddington to do anything to help reduce traffic conflicts, but MaineDOT is directed by statute to work with Eddington to ensure safety and proper access to the state highway system.
1-17	**Induced Development, Interchange and Intersection:** The DEIS notes that development in the vicinity of interchanges or intersections could impact small areas of wetlands. The FEIS should indicate what this is based on (resource mapping?).	Comment Noted. Alternative 2B-2/the Preferred Alternative and Alternative 5B2B-2 could induce development that may impact wetlands; up to 2 acres of wetlands (1 acre at the interchange with I-395 and 1 acre at the intersection with Route 9) could be impacted. Alternative 5A2B-2 could induce development that may impact up to 1 acre of wetlands (at the intersection with Route 9).
29-6	**Land Use:** It is our understanding agreements were made between MaineDOT and the town of Brewer, when the I-395 ramps in Brewer were constructed, an agreement to protect the remaining area wetlands. This project violates that agreement.	No substantive comment requiring a change in the study or additional analysis. MaineDOT staff reviewed the acquisition documents for the 127 acre parcel that MaineDOT purchased at the easterly terminus of I-395 in Brewer in addition to a check of the Penobscot Registry Of Deeds records to determine if there are any deed restrictions on the parcel. There is no indication in either the deed from the former owners or in the condemnation documents that the property was acquired subject to any restrictive covenants. Additionally, MaineDOT has not self-imposed any restrictions on the property since acquisition. MaineDOT does not know how the parcel was identified as a "Conserved Lands" parcel. Since there are no legal restrictions associated with the parcel, MaineDOT has requested that the parcel be removed from the Conserved Lands dataset.
1-19; 7-1	**Land Use, Brewer Land Trust:** The Brewer Land Trust has been working with landowners and developers to obtain conservation easements or fee ownership along Felts Brook. The Lowe's store, located in this vicinity, also has a portion of their property along Felts Brook under deeded conservation as part of their mitigation plan.	Comment Noted. MaineDOT will contact The Brewer Land Trust during the development of the mitigation plan for the I-395/Route 9 connector. A commitment to contact The Brewer Land Trust during the development of the mitigation plan for the I-395/Route 9 connector will be added to the list of commitments in the FEIS.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
32-1	**Land Use, Satellite Images:** The satellite images used at the open houses did not show homes that have been recently built in what would be the right-of-way for 2B-2.	No substantive comment requiring a change in the study or additional analysis. MaineDOT analyzed more recent aerial images and no additional houses would be displaced by Alternative 2B-2/the Preferred Alternative.
3-11	**Maps:** A different color should be used in the FEIS (not red) to show the existing utility corridors, because it is hard to differentiate between the utility corridors and the study area boundary.	Comment Noted. A different color will be used in the FEIS (not red) to show the existing utility corridors.
3-7	**Maps:** All map exhibits in Chapter 3 should show the three build alternatives that are being evaluated in the DEIS.	Comment Noted. Exhibits in the FEIS will show the three build alternatives evaluated in the DEIS.
2-1; 3-2; 3-20; 3-21	**Mitigation:** The FHWA and MaineDOT need to develop a compensatory mitigation plan that suitably compensates for the unavoidable loss of the wetlands, streams, and other natural resources as appropriate.	Comment Noted. MaineDOT and the FHWA will develop a compensatory mitigation plan that suitably compensates for the unavoidable loss of the wetlands, streams, and other natural resources during preparation of the FEIS and final design. MaineDOT and the FHWA will continue to coordinate with the federal and state regulatory and resource agencies throughout the development of the compensatory mitigation plan.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
26-1	**NEPA:** How is the directive of the NEPA successfully met?	No substantive comment requiring a change in the study or additional analysis. MaineDOT and the FHWA have followed and complied with NEPA and the regulations for implementing the procedures of NEPA at 40 CFR Part 1500. The NEPA process is intended to help public officials make decisions based on an understanding of the environmental consequences and to take actions that protect, restore, and enhance the environment (40 CFR Part 1500.1). This document identifies reasonable alternatives and assesses their potential transportation, social, economic, and environmental impacts. NEPA requires federal agencies to consider the impacts of their actions on the natural, social, economic, and cultural environment and to disclose those considerations in a public decision-making document referred to as an Environmental Impact Statement (EIS). The EIS was first circulated publicly as a Draft EIS (DEIS). Following publication of the DEIS, a formal public hearing was held during the 60-day comment period, withthe DEIS being available for review approximately 40 days before the hearing. Public input was requested and accepted. Additional public input was accepted during an open public comment period following publication of the DEIS. The purpose of this EIS was to provide the FHWA, the MaineDOT, other federal and state agencies, and the public with a full accounting of the anticipated environmental impacts of the alternatives developed for meeting the study's purpose and needs. The EIS serves as the primary document to facilitate review of the proposed action by federal, state, and local agencies and the public. The EIS provides full discussion of potential environmental impacts and will inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment (40 CFR Part 1502.1). An EIS must briefly discuss the purpose and need for the proposed action, the range of alternatives considered, the resultant environmental impacts from the proposed action, and the agencies and people consulted during the planning of the proposed action. Publication of the Final EIS (FEIS) would be followed by the FHWA issuing a Record of Decision (ROD) that selects and explains the rationale for selecting the preferred alternative and the funding, construction, operation, and monitoring of the preferred alternative.
30-3; 43-3	**Noise:** Neighborhoods are not being integrated if noise is not being mitigated. Please reconsider your priorities and the need for noise mitigation.	No substantive comment requiring a change in the study or additional analysis. Noise abatement was considered for the impacted receptors. In evaluating potential abatement measures, noise walls were modeled using the FHWA The Noise Model (TNM) and results compared to MaineDOT criteria for feasibility and reasonableness. For a barrier to be feasible under the MaineDOT noise policy, it must provide at least 7 dBA of reduction (i.e., insertion loss). If a barrier is determined to be feasible, it is evaluated for reasonableness. To be reasonable, the MaineDOT requires that the barrier cost not exceed $31,000 per benefited residence, based on a barrier cost of $31 per square foot. A benefited residence is one that receives an insertion loss of 7 dBA or greater. No barrier evaluated was determined to be reasonable because all options considered exceeded the $31,000 per benefited residence criteria. Sixteen barrier analysis sites were identified along the three build alternatives. Five of these analysis sites included only one impacted receptor. Mitigation is most effective when receptors are in proximity to each other in small communities or in residential subdivisions. Receptors along the build alternatives are not clustered but rather are isolated, making abatement inefficient. Mitigation results indicate that mitigation in the vicinity of the three build alternatives would not be reasonable due to high cost/benefited receptors. Barrier costs ranged from $194,968 to $1,043,724 per benefited receptor. Although no reasonable barriers appear likely, certain techniques can sometimes be used as part of the highway's design that has the potential for somewhat reducing noise levels. Such techniques have variable effectiveness based on the relationship of the receptor to the roadway.
30-2; 43-2	**Noise:** What is the total actual cost to mitigate noise for each route?	No substantive comment requiring a change in the study or additional analysis. The total cost to mitigate noise for each build alternative is: Alternative 2B-2 - $8,712,528; Alternative 5A2B-2 - $9,297,432; Alternative 5B2B-2 - $9,023,181.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-9; 1-14	**Permits:** Issues to be resolved should probably include receiving DEP permit and water quality certification (in addition to receiving Corps permit).	Comment Noted. Natural Resources Protection Act Permit (NRPA) — A NRPA Permit is required from the Maine Department of Environmental Protection (MDEP) for projects in, on, over, or adjacent to protected natural resources; protected resources are coastal wetlands, great ponds, rivers, streams, significant wildlife habitat, and freshwater wetlands. Section 401 Water Quality Certification — Section 401 of the CWA regulates the discharge of dredged or fill materials into waters. A Section 401 Water Quality Certification is required from the MDEP to ensure that the project would comply with state water quality standards. Typically, the 401 Water Quality Certification would be issued by the MDEP concurrently with the NRPA Permit.
3-3; 3-4; 3-6	**Project Construction:** It would be helpful if the FEIS could offer some timeframe within which corridor preservation and ultimately construction are likely to occur and if project construction is likely to be more than a few years from now, it would also be helpful if the FEIS could provide some context for how the FHWA and MaineDOT will consider new or changed information since the Record of Decision (ROD).	Comment Noted. If a 'build' alternative is selected, and subject to available resources, MaineDOT would include funding in the department's next Work Plan for design and also for right-of-way acquisition, (which would be dedicated to protect the selected alternative from further development.) Construction funding would be identified subsequent to the development of design plans for the project, which plans will refine the cost estimate for construction. Given that design and right-of-way acquisition will not occur until the next (2013) Work Plan cycle, we would not expect to be able to fund construction until the following Work Plan cycle, at the earliest. The MaineDOT must also comply with FHWA Fiscal Restraints Policy regarding project programming. 23 CFR § 771.129 provides guidance to Federal Highway Administration on re-evaluation of the FEIS subsequent to a Record of Decision. ...(b) A written evaluation of the final EIS will be required before further approvals may be granted if major steps to advance the action (e.g., authority to undertake final design, authority to acquire a significant portion of the right-of-way, or approval of the plans, specifications and estimates) have not occurred within three years after the approval of the final EIS, final EIS supplement, or the last major Administration approval or grant. ...(c) After approval of the EIS, FONSI, or CE designation, the applicant shall consult with the Administration prior to requesting any major approvals or grants to establish whether or not the approved environmental document or CE designation remains valid for the requested Administration action. These consultations will be documented when determined necessary by the Administration.
24-1	**Public Coordination:** All decisions, since April 15, 2009 were made without scrutiny of the public and their elected officials—without knowledge and concurrence of any of the real stakeholders.	Comment Noted. From 2009 to 2011, meetings took place with federal and state regulatory and resource agencies that have jurisdiction by law or special expertise to review decisions being made by MaineDOT and FHWA. The purpose of this EIS is to provide the FHWA, the MaineDOT, other federal and state agencies, and the public with a full accounting of the anticipated environmental impacts of those decisions and the alternatives developed for meeting the study's purpose and needs. The EIS serves as the primary document to facilitate review of the proposed action by federal, state, and local agencies and the public. No final decision has been made. As part of the review of the EIS, MaineDOT and the FHWA invite comments on their decision identifying Alternative 2B-2 as its preferred alternative. Final decisions will appear in the Record of Decision (ROD).

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
3-8; 3-22; 3-23	**Road-Stream Crossings:** In designing new road-stream crossings, MaineDOT and FHWA should utilize the adoption of stream simulation design techniques that broadly consider aquatic organism passage and maintenance of natural stream functions and include the broader topic of maintaining natural stream habitat and achieving aquatic organism passage in association with the construction of new road-stream crossings.	Comment Noted. MaineDOT designs new stream crossings in accordance with applicable state and federal regulatory standards relating to aquatic organism passage and our own Waterway and Wildlife Crossing Policy and Design Guide. Whenever practicable, new stream crossings are designed to retain natural stream beds and associated banks to preserve natural stream characteristics and negate the need for stream simulation or engineered passage. Specifications for the crossings will be part of the final design phase and consider existing conditions, and avoid and minimize impacts to stream habitats.
3-18	**Road-Stream Crossings:** Increasing the size of new road-stream crossings (compared to the typical MaineDOT hydraulic design standard) would be an effective means to provide resilience to ecosystems in the face of the increasing numbers and severity of storms and floods as a result of climate change.	Comment noted. The proposed crossings would span the streams at a width that is 1.2 times the bankfull width and use either a bottomless structure or a four-sided structure with stream simulation design and natural substrate installed. The substrate inside of the structure will emulate the preexisting substrate of the surrounding stream and banks will mimic terrestrial passage characteristics.
9-1; 6-1; 36-1; 44-1	**Safety:** Is the only way Alternative 2B-2 works is to remove safety on Route 9 as a purpose? 2B-2 should also compare very well in terms of relative safety benefits for the region and the state.	No substantive comment requiring a change in the study or additional analysis. Safety is a primary concern at all times for MaineDOT. Safety along Route 9 was not removed from the study purpose. Safety concerns go beyond consideration of simply the section of Route 9 in Eddington and extend to the highway system surrounding the communities in the study area. Safety remains a priority concern of MaineDOT, as is preservation of the capacity of the existing highway system. Activities that could be considered to maintain safety and preserve the capacity of Route 9, in accordance with Maine's rules governing access management (driveway and entrance siting) can go no further than working with the town of Eddington to change zoning, eliminating existing and future curb cuts, and working with individual landowners to acquire property or development rights. That authority already exists to help both MaineDOT and the community ensure that safety is maintained in the corridor. MaineDOT has no authority beyond the existing Rules to force Eddington to do anything to help reduce traffic conflicts, but MaineDOT is directed by statute to work with Eddington to ensure safety and proper access to the state highway system.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
34-1; 35-1; 38-1; 42-2; 42-3	**Safety:** Coming off a high speed road to a stop sign on a very, very busy Route 9 is an accident waiting to happen. There are accidents on the hill close to Route 1A during most snowstorms, blocking the road. How can you demonstrate this additional traffic increase will be safer for our residents?	No substantive comment requiring a change in the study or additional analysis. Traffic on Route 9 approaching the stop sign would be provided advance notice of the sign to avoid accidents. Traffic on Route 1A would decrease with a build alternative. Alternative 2B-2/the Preferred Alternative would have the lowest number of potential crashes. The major factor providing an advantage to the build alternatives concerning potential crash events is the controlled-access design. By reducing the number of crossroads and driveway-access points, fewer vehicle conflict points exist with the build alternatives in comparison to the No-Build Alternative. The improved horizontal and vertical grades (i.e. fewer sharp turns and hills than the No-Build Alternative) of the build alternatives contribute to reduced crash potential. **For more information see Safety, pg 38.**
29-2; 31-1	**Safety:** How will the truck traffic be able to merge east or west on Route 9 without endangering the safety of those traveling that stretch of the road, and disrupting the lives of those living nearby, particularly children, at the side of the road. ?	No substantive comment requiring a change in the study or additional analysis. Truck traffic will be able to merge onto Route 9 from the east or west without difficulty and endangering others. Traffic heading west on Route 9 would connect at a T intersection with the I-395/Route 9 connector and be controlled by a stop sign.
3-14	**Significant Habitat, Breeding:** If the FHWA and MaineDOT have information to show that waterfowl breeding does not occur in the study area, then the FEIS should reflect this information.	Comment Noted. Breeding will be added to the list of functions provided by waterfowl habitat in the study area in the FEIS.
3-13	**Significant Habitat, Context:** Chapter 3, Exhibit 3.22 – It would be helpful for the reader if the title for this figure gives the context for the term Significant Habitat. In this case, the term refers to those habitats regulated as significant under Maine's Natural Resources Protection Act.	Comment Noted. The context for the term Significant Habitat will be added to this exhibit in the FEIS.
3-17	**Significant Habitat, Eagle Nests:** Exhibit 3.22 does not appear to show the location of two bald eagles nests that are located near the Penobscot River and Eaton Brook. Please add these nest locations to the Exhibit.	Comment Noted. The location of the two bald eagle nests near the Penobscot River and Eaton Brook will be added to Exhibit 3.22 in the FEIS.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
7-2	**Significant Habitat:** There is an Inland Waterfowl/Wading Bird Habitat located at the at the existing I-395 interchange.	Comment Noted. The location of Inland waterfowl/wading bird habitat located at the existing I-395 interchange will be added in the FEIS.
2-10	**Storm Water:** Effective BMPs should be implemented during and after highway construction to reduce the water-quality impacts of stormwater discharges to surface water resources.	Comment Noted. BMPs will be implemented during and after highway construction to reduce the water quality impacts of stormwater discharges to surface water resources. Erosion and sedimentation control measures would be incorporated into the design and implemented during construction in accordance with Section II of the MaineDOT's Best Management Practices Manual for Erosion and Sedimentation Control and designed in accordance with the MDEP/ MaineDOT/Maine Turnpike Authority Memorandum of Agreement, Stormwater Management, November 14, 2007 and Chapter 500 Rules. MaineDOT understands the potential detrimental effects that winter maintenance initiatives may have on the environment. MaineDOT has worked diligently to ensure cost-efficient efforts are undertaken in a manner that maintains a high level of safety for the traveling public while minimizing impacts to the environment. This is especially true relative to MaineDOT's actions associated with the protection of groundwater. Maine State Law requires that MaineDOT remedy adverse impacts to residential or commercial potable-water supplies caused by winter maintenance activities; however, it has long been MaineDOT's approach to proactively prevent adverse impacts to water quality in lieu of remediation. Conservatively, MaineDOT uses the secondary drinking water standard established for chloride as the primary indicator of adverse impact. MaineDOT has a wide array of techniques in its "toolbox" to assist in minimizing impacts to the groundwater regime. Many of the techniques used are detailed in the U.S. Environmental Protection Agency's Source Water Protection Bulletin – Managing Highway Deicing to Prevent Contamination of Drinking Water and include the use of alternative anti-icing chemicals, strategically positioned road weather information systems, properly designed and calibrated application equipment, effective pre-treatment tactics and an aggressive employee training, outreach and education program. Integrated with its pragmatic use of anti-icing chemicals (data consistently shows MaineDOT uses much less anti-icing chemicals per lane mile than other northeastern states), a thoroughly-considered approach to maintaining safe passage for emergency responders, commercial goods and the traveling public in a fiscally prudent and environmentally-sound manner is achieved. For the I-395/Route 9 connector, these tactics will greatly assist in minimizing impacts to groundwater. Additionally, as discussed in the DEIS, MaineDOT will be conducting a Pre-Construction Potable Water Supply Characterization Assessment prior to construction. This assessment is undertaken to establish a baseline relative to the quality of water extracted from residential and commercial potable water supplies located along the project corridor. Samples are typically collected from water supplies positioned adjacent to the proposed construction and are analyzed for coliform bacteria, nitrate, nitrite nitrogen, fluoride, chloride, hardness, copper, iron, arsenic, manganese, sodium, lead, uranium, pH, color, turbidity and odor. The analytical data is maintained in a state-wide database and is used for comparison purposes should any potential claims arise relative to water supply impacts associated with MaineDOT's construction or long term winter maintenance initiatives.
2-8	**Storm Water:** Storm water outfalls should be located as distant as possible from public and private supply wells.	Comment Noted. The highway drainage and stormwater management system would be designed in accordance with the MDEP/MaineDOT/Maine Turnpike Authority Memorandum of Agreement (MOA), Stormwater Management,November 14,2007.Under the MOA, the MaineDOT would be required to meet the General Standards under Chapter 500 to the extent practicable as determined through consultation with and agreement by MDEP. Storm water outfalls should be located as distant as possible from public and private supply wells.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
15-1	**System Linkage:** How can it be considered safe and efficient traffic control to navigate 100,000# vehicles at 50 mph from the Clifton/ Eddington town line, through the village of East Eddington at 35 mph and then traveling at speeds varying from 45 to 40 to 45 and back to 40 mph at the proposed 2B-2 connection point through all those 190 unrestricted access points? The multiple and varied speed limits alone, on this 4.5 mile segment of route 9, appears to go against the definition of an appropriate system linkage for this project.	No substantive comment requiring a change in the study or additional analysis. The need for system linkage discusses how the proposed project fits into the existing and future transportation system (network).Continuity in the transportation system is essential for efficient vehicle movements and travel patterns and safety. System continuity can be defined and measured by how often an existing highway transitions between wider, higher-speed segments to narrower, lower-speed segments. System linkage and continuity is linking two or more existing transportation facilities. System linkage and improved mobility results from smooth interconnections and transitions between regional, high-speed, high-capacity highways. In connecting these types of highways, highway-design principles attempt to provide for gradual and consistent transitions in travel speed, roadway geometry, and capacity. MaineDOT determined that Route 9, with the exception of the sections approaching the intersection of Routes 9 and 46 where the posted speed limit is lower than other portions of Route 9, could reasonably accommodate future traffic volumes for the next 20 years without additional improvements beyond the existing right-of-way and accomodate the system-linkage need. The changes in traveling speeds are gradual and consistent transitions. MaineDOT conducted a review of 2012 vehicle classification data to determine what, if any, impact the recent change in Maine Interstate highway weight limits has had on traffic volumes on Route 9, Route 46, and other selected highways. In November of 2011, the allowable gross vehicle weight of Class 10 vehicles (tractor- trailers with six axles) increased from 80,000 pounds to 100,000 pounds. This change is likely to increase the amount Class 10 traffic on Interstate highways, increase Class 10 traffic on highways that connect to the Interstate, and reduce Class 10 traffic on highways that parallel the Interstate. In 2012, MaineDOT conducted an extensive short-term vehicle classification counting program in central, eastern, and northern Maine to provide new information on Class 10 travel patterns. These class counts, along with data from permanent classification sites, were compared to 2011 class data to identify corridors where changes in Class 10 volumes and travel patterns have appeared. To address the question of the law's impact on the study area, 2012 data from selected vehicle class sites was reviewed and compared to class data collected at those same sites in 2011 and 2009. The principal finding of the data review is that there does not appear to be a substantial shift in long distance Class 10 truck traffic from Route 9 in eastern Maine to I-95 in northern Maine. The best sources of Class 10 volume data come from the permanent long-term classification sites, where vehicular traffic is counted and classified year-round. The permanent vehicle classification station on Route 9 in T22MD has shown slightly fewer daily Class 10 trucks in 2012 than in 2011. Meanwhile, the permanent vehicle classification station on I-95 in Medway has shown an increase in the daily Class 10 volume of more than 100 in the southbound (loaded) direction. Further review of short-term classification data in Lincoln and Mattawamkeag shows that the change on I-95 can be attributed almost entirely to Class 10 traffic diverted from parallel U.S. Route 2, where 100,000 pound Class 10 vehicles have been allowed for many years. Other short-term classification counts on Route 9 and Route 46 show mixed results, indicating a small shift, if any. The conclusion is that the Interstate gross vehicle weight increase to 100,000 pounds has resulted in a shift in shorter-length Class 10 trips on parallel routes such as U.S. Route 2, but has not resulted in significant shift in the longer-length Class 10 trips on Route 9. **For more information see Future Development, Route 9, pg 32.**

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
16-3; 22-1	**Traffic, Economy:** At some point the economy will rebound, along with an increase in traffic numbers, and it will surely be before the year 2035 that you estimate for Route 9 traffic capacity—have you factored that into your future numbers?	No substantive comment requiring a change in the study or additional analysis. Future traffic volumes for were forecasted to 2035 using MaineDOT's statewide travel-demand model and historical traffic-volume increases. The build alternatives were planned and conceptually designed to accommodate 2035 traffic-volumes. In early 2012, MaineDOT reviewed the historic traffic growth on Route 9 east of Route 46 and determined that the volumes currently projected for 2030 would more accurately represent conditions in 2035. **For more information see Future Development, Route 9, pg 32.**
10-1	**Traffic, Route 46:** During the spring months when Route 46 is posted with weight limits, our trucks are forced to use alternate routes.	Comment Noted. The statement that commercial traffic is forced to use alternate routes during the spring months when Route 46 is posted with weight limits will be added to the FEIS.
16-4	**Traffic, Congestion:** If traffic congestion was such an important need from the start of the study, why has the Study Group chosen to not bypass the whole section of Route 9 by bypassing the village of East Eddington as the Study clearly stated from the start?	No substantive comment requiring a change in the study or additional analysis. Traffic congestion is one of three equal needs for this study. After careful consideration of those factors, the MaineDOT determined that Route 9, with the exception of the sections approaching the intersection of Routes 9 and 46 where the posted speed limit is lower than other portions of Route 9, could reasonably accommodate future traffic volumes for the next 25 years without additional improvements beyond the existing right-of-way. Exhibit 1.8 in the DEIS shows that Route 9 east of Route 178 only has a 0.10 difference in the volume to capacity ratio and a 1.8 mph travel speed difference from 2006 to 2035. **For more information see Future Development, Route 9, pg 32.**
41-1	**Traffic, Survey:** In an informal survey of 3-4 axle trucks using Route 46, we found there were 1,457 per week (+/-) or an average of 208 tractor-trailers a week, based on 7 days average.	No substantive comment requiring a change in the study or additional analysis. MaineDOT's Traffic Monitoring Sections collects all types of traffic data including traffic volumes, vehicle classification, turning movements and special studies as requested by MaineDOT. This includes commercial traffic volumes.

Location	2010 Truck AADT	2035 Truck AADT
Route 1A east of I-395	1,569	2,449
Route 1A west of Route 46	1,569	2,449
Route 1A east of Route 46	1,569	2,449
Route 46 south of Route 1A	265	281
Route 46 north of Route 1A	604	1,167
Route 9 east of Route 178	569	662
Route 9 west of Route 46	604	1,167
Route 9 east of Route 46	879	1,535

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
15-3; 16-5; 45-2	**Traffic, Truck Numbers:** In the study the truck numbers are from 1998 and as I mentioned in conversation this afternoon at the open house I believe that for people to have an accurate understanding there should be more recent data. Before you spend $90+ million dollars, don't you think it may be prudent to verify the current traffic count and reassess your projected traffic counts?	No substantive comment requiring a change in the study or additional analysis. MaineDOT has collected truck traffic volume data on Route 9 in years since 1998, but the 1998 origin-destination survey data collected for this study remains the most recent available. Origin-destination data is very costly to collect, but it retains its value for decades, especially in areas where traffic growth has been relatively flat since the year that the survey was taken. Growth in truck volume data has also been flat since 1998. On Route 9 near the Eddington-Clifton line, the recorded daily heavy truck volume was 880 vehicles in 1998. At the same location in 2009, the heavy truck volume was 910 vehicles, a 3% increase over 11 years. Truck classification data was collected in the study area to determine changes in truck movements will the 100,000-pound weight restriction law change for the interstate system and this data will be included in the FEIS. Trucks are permitted to use state roads in the study area. In 2011 and 2012, truck classification data was collected in and around the study area to determine changes in truck movements with the 100,000-pound weight restriction law change allowing the use of the vehicles on the Interstate system. The results of the comparison of 2011 and 2012 traffic data did not show a significant change in 100,000-pound truck use on Route 9 east of the study area, but the data did show a decrease in the volume of these vehicles on Route 9 west of Route 46 in Eddington and an increase in the volume of these vehicles on Route 1A in Brewer, east of where Route 1A connects to I-395. These changes indicate a shift toward increased use of I-395 by these vehicles.
16-1	**Traffic, Canadian Truckers:** Is there really a traffic issue with Canadian truckers coming and going to Brewer? Is ME Route 9 the only route they can use?	No substantive comment requiring a change in the study or additional analysis. Truck traffic in the study area is a problem. Trucks are permitted to use all state roads in the study area, including Routes 1A and 46. **For more information see East-West Highway, pg 28.**
14-1; 16-2; 31-2	**Traffic, Weight Restrictions:** Since the change of weight restrictions on I-95, there have been no studies done to validate how traffic patterns have changed, and what the impact of the privately funded east-west highway will be on future traffic patterns.	Comment Noted. The change in weight restrictions on I-95 is expected to have a substantial impact on truck traffic patterns in Maine, particularly on highways north and east of Portland. Limited vehicle classification data collected during the 2010 pilot study of the lifting of the 80,000-lb. weight restrictions on the toll-free portions of the Interstate showed definite shifts of 6-axle truck traffic toward toll-free Interstate highways and away from parallel state highways and the Maine Turnpike, where the restriction has long been 100,000 lbs. However, 2010 pilot study data was not available for the I-395 / Route 9 area. Truck classification data was collected in the study area to determine changes in truck movements will the 100,000-pound weight restriction law change for the interstate system and this data will be included in the FEIS. Trucks are permitted to use state roads in the study area. The impact of the proposed privately funded East-West highway on truck traffic patterns is yet to be determined. The impact will depend on several factors: travel time, toll rates, other user costs, all relative to competing routes such as the Trans-Canada Highway, the Interstate System, and other components of the National Highway System (US Route 2 and Route 9, for example). The upcoming East-West Highway Study should provide some answers to the question. Available origin-destination data collected in 1998 suggests that perhaps 1% of the traffic on Route 9 is Canada-to-Canada traffic. **For more information see System Linkage, pg 41.**
46-1	**Traffic, Drawings:** The final study must include actual drawings and plans as to how the Route 46/9 intersection would be handled for the traffic flow and integration of Route 46.	No substantive comment requiring a change in the study or additional analysis. The improvements to this intersection could be accomplished within the existing rights-of-way of Routes 9 and 46 with no impact to the natural and social features adjacent to the intersection. The MaineDOT is committed to improving the intersection of Route 9 and Route 46; given the future need and the limited scope of the improvements to the intersection, the improvements will be added to future work plans for MaineDOT and plans will not be produced as part of this study.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-5	**Traffic, Traffic Data on Route 9:** The public seems mystified as to why traffic data at one time indicated that the section of Route 9 west of 46 could not be used and now it can. The final document should clarify this evolution.	Comment Noted. With the 2008 economic downturn and increase in the price of gas, traffic in the study area has not grown as fast as previously forecast. In December 2009, the MaineDOT reexamined the system-linkage need and Route 9 in greater detail to determine whether it could reasonably accommodate the future traffic volumes foreseeable within the next 20 years. MaineDOT believes the growth in traffic and traffic volumes originally forecast for Route 9 and rest of the study area for the year 2030 won't materialize until the year 2035 and Route 9 has adequate capacity and would continue to operate at an acceptable level of service and operating speed up to and beyond the year 2035 (the time period that has been determined to be reasonably foreseeable). Please see Section 3.3.2 System Continuity and Mobility in the DEIS. The build alternatives, including those that use portions of Route 9, would improve the quality of traffic flow at the intersection of Route 9/46 and other physically less intrusive improvements (e.g., adding turn lanes) could be made to the intersection that would further improve the quality of traffic flow at the intersection.
30-4; 42-6; 43-4	**Traffic, Study Year:** The study year was changed to reflect the downturn moving it out five years to 2035 from 2030. Where did that five year change come from? What data support a five year change?	No substantive comment requiring a change in the study or additional analysis. In early 2012, MaineDOT reviewed the historic traffic growth on Route 9 east of Route 46 and determined that the volumes currently projected for 2030 would more accurately represent conditions in 2035. **For more information see Future Development, Route 9, pg 32 and System Linkage, pg 41.**
1-3	**Traffic:** What is the scope of actions that might be required in this section should level of service reach an unacceptable level in the future?	No substantive comment requiring a change in the study or additional analysis. This section of Route 9 has adequate capacity and would continue to operate at an acceptable level of service and operating speed up to and beyond the year 2035 (the time period that has been determined to be reasonably foreseeable). Beyond the year 2035, should this section of Route 9 begin to operate at an unacceptable level of service, operating speed or safety, MaineDOT and FHWA would consider the need for additional improvements. The scope of the additional improvements could range from limited improvements within the existing right-of-way (e.g., small improvements at a specific location, additional turn lanes at intersections, addition of a center turn lane) to widening or a bypass of portions of Route 9.
12-2	**Trail Access:** The right to build, maintain and/or travel over my property was granted to Eastern Maine Snowmobile Club.	Comment Noted. During final design of the selected alternative, the MaineDOT would evaluate options for maintaining the integrity of the existing snowmobile trail system.
20-2	**Vernal Pools:** Could the 3EIK-2 route have been successfully moved around the vernal pools if it was only a 200' wide footprint? How about 5A2E3K?	No substantive comment requiring a change in the study or additional analysis. Alternative 3EIK-2 did not avoid vernal pools. The direct impacts from Alternative 3EIK-2 are based on the conceptual design of a two-lane highway. Alternative 3EIK-2 would directly impact three vernal pools and impact the habitat of an additional 110 vernal pools. The dispersal habitat potentially impacted by Alternative 3EIK-2 would be approximately 3,400 acres. Alternative 5A2E3K resulted in impacts to 2 non-significant vernal pools and 257 acres of indirect impacts to vernal pools.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
24-4; 25-1	**Vernal Pools, USACE Significance:** How can the ACOE treat all vernal pools as significant (containing the specific amount of frogs and salamanders) whether they are significant or non-significant? How can you buffer a nonsignificant vernal pool? If it is non-significant, it is just a puddle.	No substantive comment requiring a change in the study or additional analysis. The USACE does not rate or rank vernal pools similar to Maine's regulation of only significant vernal pools; the USACE considers information on all vernal pools, including those determined to be significant by the State of Maine. University of Maine. "Vernal Pool Regulation in Maine - Answers to Frequently Asked Questions." Online: http://www.umaine.edu/vernalpools/Regulations.htm.
1-7; 1-15; 3-15	**Vernal Pools, Dispersal Habitat:** In the discussion of vernal pools, the FEIS should be clear on whether or not the impacts to amphibian dispersal habitat from the build alternatives would be strictly limited to upland habitat (as stated in the DEIS) or whether these impacts would actually occur in both upland and wetland habitats (the later usually being the case in the general study area).	Comment Noted. Impacts to amphibian dispersal habitat from the build alternatives would occur in both upland and wetland habitats and will be noted in the FEIS.
3-19; 24-5	**Vernal Pools, Indirect Impacts:** The discussion related to indirect impacts to vernal pools from the loss of forested habitat around the pool should explain the origin of the 750 foot distance.	Comment noted. The 750-foot distance around vernal pools comes from Calhoun and Klemens (2002) "Best Development Practices Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States" and is mentioned in the USACE New England District's Compensatory Mitigation Guidance. The USACE and federal resource agencies typically use the concentric-circle model with recommended management zones (including the 750 feet of "critical terrestrial habitat"), that was first introduced in the Calhoun and Klemens (2002) document, to assess indirect impacts to the critical terrestrial habitat around a vernal pool.
30-1; 43-1	**Vernal Pools, Assessment Form:** The MaineDOT did not use the Maine State Vernal Pool Assessment Form nor did they use any sort of standard method to gather vernal pool data.	No substantive comment requiring a change in the study or additional analysis. It was not MaineDOT's intention to collect vernal pool data for this study using the Maine State Vernal Pool Assessment Form. MaineDOT gathered information to help identify natural resources that should be reviewed when alternative alignments are considered. MaineDOT personnel viewed the land to see if vernal pools were present or absent. They took note of egg masses and vernal pools were identified based upon the presence of indicator species.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
1-8; 1-16	**Vernal Pools, Table:** The table now accurately reflects habitat characteristics within a 750' radius of the pools in addition to the DEP's 250'. How much of the forested cover surrounding the pools is wetland v. upland?	Comment Noted. MaineDOT and FHWA will add the amount of forest of wetlands and uplands in the forest cover surrounding vernal pools to the FEIS.

Resources		Distances (feet)		Alternative Indirect Impacts (acres)					
		Upslope/ Upwind	Downslope/ Downwind	No-Build Alternative' Upslope	No-Build Alternative' Downslope	2B-2/the Preferred Alternative Upslope	2B-2/the Preferred Alternative Downslope	5A2B-2 Upslope	5A2B-2 Downslope	5B2B-2 Upslope	5B2B-2 Downslope
Vernal Pools	Area	250²		54		17		25		8	
	Percent Forested			25 (46%)		10 (60%)		20 (78%)		7 (83%)	
	Percent Wetland			17 (31%)		8 (47%)		20 (80%)		4 (50%)	
	Percent Upland			37 (69%)		9 (53%)		5 (20%)		4 (50%)	
	Area	750²		480		278		395		146	
	Percent Forested			254 (53%)		175 (63%)		233 (59%)		101 (69%)	
	Percent Wetland			101 (21%)		109 (39%)		177 (45%)		49 (34%)	
	Percent Upland			379 (79%)		169 (61%)		218 (55%)		97 (66%)	

4-1; 4-2	**Water Resources:** Both Felts Brook and Eaton Brook have high value eastern brook trout. Eddington and Holbrook Ponds have now been confirmed to have non-native invasive black crappie populations.	Comment Noted. The descriptions of Felts Brook and Eaton Brook will be updated in the FEIS to note high value eastern brook trout. The descriptions of Eddington and Holbrook Ponds will be updated in the FEIS to note the presence of non-native invasive black crappie populations.
3-10	**Wildlife:** Include the core maps from Maine's Beginning Habitat program instead of just including the map showing the undeveloped habitat blocks.	No substantive comment requiring a change in the study or additional analysis. The core Beginning with Habitat maps were consulted prior to preparation of the DEIS and can be included in the FEIS.
3-12	**Wildlife:** The DEIS notes that two large wildlife passage structures will be located on both sides of Eaton Brook. We recommend that the FEIS explain why these particular locations were chosen, including the wildlife species that are targeted to use the structures. Were any particular wildlife movement corridors identified during field studies?	Comment Noted. The location of the two wildlife passage structures were chosen because it is in a remote area with abundant wildlife. The FEIS will explain the rational for selecting these locations, including the wildlife species that are targeted to use the structures.

Exhibit 2 - *Continued*

Comment #	Summary of Substantive Comment	Response to Substantive Comment
3-9	**Wildlife:** The seventh paragraph on page 89 gives a list of mammal species that have a very strong association with wetlands. Is this a generic list or are these mammal species that have been seen or would be expected to occur in wetlands in the study area?	No substantive comment requiring a change in the study or additional analysis. The list of species associated with wetlands is a generic list from the Maine Audubon Society's Conserving Wildlife in Maine's Developing Landscape article.
29-4; 29-5; 45-1	**Zoning:** The connector ignores the the Master Zoning Ordinance and destroys the business development plan.	Comment Noted. In March 2012, an updated Zoning Ordinance for the Town of Eddington was approved. The zoning changes have been updated in the FEIS and references. The Preferred Alternative would connect with Route 9 within the Town of Eddington's commercial zone. Traveler- and traffic oriented businesses along Routes 1A and 9 in Eddington would experience few adverse impacts from the Preferred Alternative (see section 3.4.5.4 Retail Business)

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Index

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Attachment

Comments and Public Meeting Transcripts

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

Regulatory Division
CENAE-R-51
Corps File No. NAE-2001-02253

July 16, 2012

Russell D. Charette, PE
Director, Mobility Management Division
Bureau of Transportation Systems Planning
16 State House Station
Augusta, Maine 04333

RE: Draft Environmental Impact Statement ("DEIS") & Section 404 Permit Application, I-395/Route 9 Transportation Study

Dear Mr. Charette:

This is in response to your request for comment on the draft Environmental Impact Statement ("DEIS") for the proposed project, the construction of a connector road between I-395 at Brewer, Maine and Route 9 at Eddington, Maine.

On December 30, 2012 the Corps provided comments on the administrative draft of this document. We appreciate the willingness of Maine DOT and FHWA to incorporate those comments into the present draft. We have completed our review of the DEIS and have prepared additional comments (attached). Applicable section and/or page numbers are included for your reference. Our comments are based on a review of the DEIS as well as responses to our April 17, 2012 public notice and testimony provided at FHWA's May 2, 2012 public hearing.

In general the DEIS continues to provide an excellent overview of the project and the affected environment. We look forward to continuing our coordination with your agency as well as with the interdisciplinary review team as project planning continues.

If you have any questions concerning this matter, please contact jay Clement of my staff at 207-623-8367 at our Manchester, Maine Project Office. Thank you for the opportunity to comment.

Sincerely,

Jay L. Clement

FOR Frank J. Del Giudice
Chief, Permits & Enforcement Section
Regulatory Division

Attachments
Copies Furnished:
Mark Hasselmann – FHWA
Mark Kern – USEPA (w/o attachments)
Wende Mahaney – USFWS (w/o attachments)
Dan Tierney – NMFS (w/o attachments)
James Beyer – Maine DEP (w/o attachments)

CORPS OF ENGINEERS COMMENTS ON
DRAFT ENVIRONMENTAL IMPACT STATEMENT ("DEIS")
FOR THE I-395/ROUTE 9 TRANSPORTATION STUDY
CORPS FILE NO. NAE-2001-02253

General Comments.

1. In previous email comments to the DEIS, EPA correctly noted that the document is first and foremost, a NEPA document. While the Corps is a cooperating agency in the development of the EIS and we hope it will assist in the review of your future permit application, the document shouldn't be labeled a Section 404 Permit application. It needs to be a stand-alone NEPA document. Any references to supporting a Corps 404 permit application that are contained in the document, e.g. Section 1.8, Page 23, should probably be stricken or re-written. 1-1

2. As you are aware, the Corps issued a public notice on April 17, 2012. In addition to the multi-part comments provided by Mr. Larry Adams, copies of which were provided to Maine DOT and FHWA, the Corps received several comments. Copies are attached for your consideration. If DOT did not receive the same comments, we ask that they be included and fully addressed in the FEIS.

3. Public comment letters.

a. Mr. Larry Adams provided extensive and detailed comments on the DEIS. Many are reflected in our comments. Presumably others like property displacements, system linkage, economics, traffic data, PAC procedures, public safety, future growth, project re-design, project need, secondary neighborhood impacts (lighting, noise, property de-valuation, etc), apparent public and community/municipal support for the no-build alternative, and Atlantic salmon impacts will be fully addressed through revisions to associated sections of the EIS.

b. The DEIS needs to address future growth along Route 9 in the link west of Route 46 and how it will affect level of service. What is the scope of actions that might be required in this section should level of service reach an unacceptable level in the future? 1-2 1-3

c. Apparently the final document must provide greater clarification as to why alternative 2B-2 was not preferred at one time and now is. Perhaps the background section or Appendix C needs to be expanded. Similarly, the public seems mystified as to why traffic data at one time indicated that the section of Route 9 west of 46 could not be used and now it can. The final document should clarify this evolution. 1-4 1-5

d. As noted in the Specific Comment section below, the relationship of the new East-West Highway initiative to this project's purpose and need needs to be better addressed in this document. A great deal of public testimony focused on this issue. 1-6

4. It is the Corps preliminary determination that of the build alternatives, alternative 2B-2, the preferred alternative of Maine DOT and FHWA, appears to be the least environmentally

damaging practicable alternative ("LEDPA"). Our LEDPA determination is based on the preliminary applications submitted to date by Maine DOT, information contained in the DEIS and previous planning documents provided by DOT and its consultants, concurring comments from the U.S. Environmental Protection Agency and U.S. Fish & Wildlife Service, extensive interagency coordination, and a review of public comment. A final LEDPA determination will be made after we review updated findings from Maine DOT and FHWA relative to public comments expressed in response to the DEIS and at the open houses and public hearing.

Please remember that our LEDPA determination is not a permit decision. The final LEDPA determination will assist Maine DOT as they continue project planning and pursue future funding. Any future Corps permit decision will require the submission of a final complete permit application, evaluation of additional measures to further avoid and minimize impacts to aquatic resources, and the development of a detailed mitigation plan intended to compensate for any unavoidable impacts to wetlands and other aquatic resources. Maine DOT will also be required to obtain a permit and water quality certification from the Maine Dept. of Environmental Protection ("Maine DEP").

The selection of the LEDPA does not preclude additional minor reroutes or other minor changes in project design that may arise. Similarly, the Corps retains the discretion to revisit the LEDPA determination should substantial new information on impacts to the environment or affected public interest factors arise. I wish to encourage you and your consultants to continue working with state and federal regulatory/resource agencies as well as the general public to avoid and minimize impacts to waterways and wetlands and other important public resources.

As with any highway project that involves unavoidable direct *and* indirect impacts to aquatic resources, adequate compensatory mitigation will be a major factor in any future permit decision. We encourage Maine DOT to continue early planning and coordination in this area. A mitigation plan must be included in the final permit application. Although you and your consultants are aware of it, let me remind you that mitigation must be planned in accordance with the most current mitigation guidance from the Corps. This is available at our New England District web site at www.nae.usace.army.mil/regulatory. Identifying potential mitigation sites and assembling site analysis data, such as monitoring hydrology levels, should continue to be closely coordinated with the Corps, our federal resource agency partners, and the Maine DEP.

Specific Comments

1. Page s10. The document clarifies that 37 out of an initial 45 alternatives were dismissed because they were more environmentally damaging, did not meet the project purpose, or did not meet all of the needs of the study. Based on the comments at the public hearing and open houses, DOT and FHWA may wish to elaborate on why specifically these alternatives were dismissed. Perhaps in Appendix C?

2. Page s16, Exhibit S.7. This table or footnotes to this table should clarify what the loss of vernal pool dispersal habitat is. Is it upland; is it wetland; or is it both?

1-7

3. Page s17, Exhibit S.8. Similar question. The table now accurately reflects habitat characteristics within a 750' radius of the pools in addition to the DEP's 250'. How much of the forested cover surrounding the pools is wetland v. upland? 1-8

4. Page s18. Issues to be resolved should probably include receiving DEP permit and water quality certification (in addition to receiving Corps permit). 1-9

5. Section 1.1, Page 3. The document contains a brief summary of the past East-West Highway initiative but falls short in concluding that this particular project and other improvements along Route 9 and Route 2 became the state's response to that initiative. DOT and private parties are now involved in a related initiative. As evidenced in public hearing testimony, some believe this initiative may obviate the need for what they perceive as an unnecessary and unwanted connection to I-395. The Corps suggests that the most recent initiative and its relationship, if any, to the project purpose be fully discussed in the FEIS. 1-10

6. Page 42, Section 2.3.1. The DEIS notes that the no build alternative anticipates regular maintenance to I-395 and Routes 1A, 46, and 9, and improvements to the Route 9/46 intersection. In light of testimony at the public hearing, it is important that the discussion of the no build alternative and its depiction on the comparative matrices reflect the environmental and socio-economic effect of the anticipated maintenance and improvements and continued use of Route 46 (compared to the build alternatives). 1-11 The phrase "using the same filter" was used in public testimony. In addition to environmental and socio-economic impacts/benefits, the discussion of the no build should fully address transportation, public safety, residential/business property, and community impacts/benefits. 1-12 How do Maine DOT and FHWA intend to address the argument that the no build alternative might save state and federal transportation funding that might be better served on other unmet needs in the state? How does Maine DOT intend to address the apparent multi-community support for the no-build alternative as evidenced in testimony at the public hearing?

7. Page 45, Sections 2.3.2 – 2.3.4. In the discussion of the build alternatives, the DEIS notes that Route 9 would not be improved (from connection point to the intersection with Route 46). Has DOT identified any actions that could be taken to address public concerns in this link? Would normal maintenance occur? Are there improvements that could be made to insure public safety concerns for walking, jogging, and biking along Route 9? The DEIS should fully explore these potential actions. 1-13

8. Page 56, Section 2.5. One notable next step that is not mentioned in the DEIS is application to the Maine DEP for a permit and water quality certification. This is just as important as a Corps permit application. 1-14

9. Page 58, Exhibit 2.17. See specific comment 2. 1-15

10. Page 82, Exhibit 3.9. The DEIS now identifies the extent of dispersal habitat within 750' of vernal pools. The document should clarify the relative percent of upland and wetland within this area. 1-16

11. Page 173, Section 3.7.1.1. The discussion of induced growth and its potential impact on various cover types has now been broadened to project potential impact to wetland cover types. The DEIS notes that development in the vicinity of interchanges or intersections could impact small areas of wetlands. The document should indicate what this is based on (resource mapping?). 1-17

12. Page 173, Section 3.7.2. The Corps previously noted that if any of the former Route 9 improvement projects are now due for maintenance and are proximate to the connector road, they should probably be noted in the cumulative impact section of the EIS and their impacts projected accordingly. 1-18

13. Page 180, Section 3.8. It is unclear whether the Brewer Land Trust was contacted in the mitigation site search. Following one of the Open Houses, the land trust wrote a letter to the Corps and DOT expressing general concerns and noting that they own or have easements on several parcels in the project area. The land trust should be contacted to determine how future mitigation needs might mesh with their long-term planning and the EIS updated accordingly. 1-19

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

OFFICE OF THE
REGIONAL ADMINISTRATOR

May 15, 2012

Mark Hasselmann
Federal Highway Administration
Edmund S. Muskie Federal Building
40 Western Avenue, Room 614
Augusta, Maine 04332

RE: I-395/Route 9 Transportation Study Draft Environmental Impact Statement, Brewer, Holden, Eddington, and Clifton, Maine (CEQ# 20120070) and U.S. Army Corps of Engineers Public Notice NAE 2001-02253.

Dear Mr. Hasselmann:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), Section 404 of the Clean Water Act, and Section 309 of the Clean Air Act (CAA), we have reviewed the Federal Highway Administration and Maine Department of Transportation (MaineDOT) Draft Environmental Impact Statement (DEIS) for the I-395/Route 9 Transportation Study Draft Environmental Impact Statement.[1]
The DEIS details plans by MaineDOT to evaluate transportation alternatives to "improve regional system linkage, relieve traffic congestion, and improve safety along Routes 1A and 46, and to improve the current and future flow of traffic and the shipment of goods to the Interstate system." The project is proposed in the towns of Brewer, Holden, Eddington, and Clifton, Maine.

The DEIS considers the No Build alternative, and three build alternatives. The build alternatives (Alternative 2B-2, Alternative 5A2B-2, and Alternative 5B2B-2) were selected for study following an extensive interagency coordination process led by MaineDOT that began in 2001. EPA was an active participant in that process as a cooperating agency. During that time EPA offered recommendations to help reduce impacts of the project. Our work included review of pre-publication draft sections of the DEIS. The DEIS incorporates many changes made in response to our input. Although the DEIS preferred alternative is not without impacts to wetlands and other aquatic resources, MaineDOT is to be complimented for their efforts to modify the project to avoid direct and secondary impacts to aquatic resources.

[1] We note that the DEIS has also been prepared to serve as a preliminary Section 404 Permit Application to the U.S. Army Corps of Engineers (Corps). The Corps Public Notice requests input regarding the determination of which alternatives should be carried forward to a "future final permit application" for a Section 404 permit. This letter offers general comments in response to that request. EPA will also comment on any future applications filed with the Corps for the project.

The three build alternatives were selected as they generally meet the project purpose and need and provide reasonable opportunities to reduce overall impacts, especially those to the aquatic environment. The three build alternatives were also advanced by the interagency group as they would result in far less impact than other alignments that were screened (especially the so-called Family 3 Alternatives through the center of the study area). More specifically, MaineDOT's serious consideration of EPA's comments (and those of other involved federal agencies) led to the transformation of the project from a 10-mile 4-lane bypass highway with 50 acres of wetland fill and significant secondary impacts (to over 100 vernal pools and large undeveloped forest blocks) to a 10-mile 2-lane bypass that would fill 26 acres of wetland and result in more reduced secondary impacts to vernal pools and unfragmented habitat. As a result of the project changes, it appears that one of the three build alternatives analyzed in the DEIS would likely be the Least Environmentally Damaging Practicable Alternative (LEDPA). MaineDOT and FHWA have identified Alternative 2B-2 as the preferred alternative in the DEIS due to its ability to satisfy the project purpose and because they believe it has the least adverse environmental impact. EPA supports the evaluation of these three build alternatives through the NEPA process and by the Corps as they work to determine which is the LEDPA.

Our attached comments highlight several areas of the DEIS where additional information or clarification is necessary to more fully describe impacts of the proposed alternatives. Specific issues described in the attachment focus on the development of a more comprehensive wetland mitigation plan, refinement of the induced growth analysis, a request for air quality mitigation measures during construction and suggestions to help improve the protection of water supplies in the project area. Based on our review of the DEIS and the need for additional information, and in accordance with EPA's national rating system (a description of which is attached to this letter) we have rated the DEIS EC-2-"Environmental Concerns-Insufficient Information."

We appreciate the opportunity to participate in interagency workgroup meetings to discuss the project to date and to provide our comments on the DEIS and Corps Public Notice. We encourage MaineDOT and FHWA to continue to seek input from local, state and federal agencies and the public as the NEPA/404 process advances. We will continue to participate in the process as a cooperating agency and will review new information as it is developed and will continue to help MaineDOT address outstanding issues as the NEPA/404 processes advance for the project.

Please feel free to contact me or Timothy Timmermann of EPA's Office of Environmental Review at 617-918-1025 if you wish to discuss these comments further.

Sincerely,

H. Curtis Spalding
Regional Administrator

2

Enclosures

cc:

Jay L. Clement, Senior Project Manager
U.S. Army Corps of Engineers New England District
Main Project Office
675 Western Avenue #3
Manchester, Maine 04351

Russell D. Charette, P.E.
Maine Department of Transportation
Director, Mobility Management Division
Bureau of Transportation Systems Planning
16 State House Station
Augusta, Maine 04333

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

Additional Detailed Comments
Interstate 395 / Route 9 Transportation Study
Draft Environmental Impact Statement
Brewer, Holden, and Eddington, Maine

Wetland Issues

Setting
The transportation study area is located in the lower Penobscot River watershed. Numerous project area streams and freshwater wetlands drain to tributaries and ponds that flow into the Penobscot River. The fisheries in the lower Penobscot River include valuable species such as Atlantic salmon, alewife, striped bass and brook trout. These streams and the associated riparian zones serve as wildlife corridors between the streams and nearby undeveloped land. Wetlands within the study area cover approximately 30 percent of the landscape, provide valuable wildlife habitat and help maintain regional water quality. The interior of the study area includes large undeveloped areas that contain large wildlife habitat blocks, high value wetlands, and vernal pools.

Alternatives
MaineDOT worked with EPA, the Corps of Engineers, the United States Fish and Wildlife Service and others to screen more than 70 build alternatives that could possibly meet the project purpose and need. At the conclusion of the interagency screening effort, four alternatives, including the no build alternative, were selected for evaluation in the DEIS. The build alternatives (Alternative 2B-2, Alternative 5A2B-2, and Alternative 5B2B-2) were selected for further study as they generally met the project purpose and need and provided reasonable opportunities to reduce overall impacts, especially those to the aquatic environment. EPA concurred with the selection of these three alternatives for analysis in the DEIS (and eventually by the Corps of Engineers in their permitting review) as they would result in far less impact than other alignments (especially the so-called Family 3 Alternatives routed through the center of the study area) that were evaluated and then dropped from further consideration.

Impacts
All three of the build alternatives evaluated in the DEIS would result in similar adverse impacts to the aquatic environment. The preferred alternative would fill 26 acres of wetland over ten miles of roadway and impact 10 acres of floodplain and 554 linear feet of stream for roadway crossings. All three build alternatives would either fragment or eliminate habitat blocks in the study area. The potential for indirect impacts to aquatic resources from the three build alternatives are somewhat minimized due to their general proximity adjacent to areas already impacted by past land use/development and away from large undeveloped habitat blocks to the interior of the study area.

Mitigation
Finally, we note that no specific mitigation proposals to address impacts to the aquatic environment are provided in the DEIS. Instead, the DEIS briefly discusses general compensatory mitigation opportunities for the project. While EPA generally agrees with

the basic mitigation concepts outlined in the DEIS, we believe more detail should be provided in the FEIS regarding wetland mitigation. Moreover, a detailed mitigation plan will also need to be developed to support any future permitting effort by the Corps under the Clean Water Act. We request the opportunity to participate in the development of the wetland mitigation plan (with the interagency workgroup) as the project continues to advance through the NEPA and Section 404 review. 2-1

Induced Development or Growth

The analysis of induced growth in the DEIS is based on an assumption that since the roadway is intended to serve long-distance, through- and regional-traffic, the development induced by the alternatives is likely to be traveler-oriented businesses such as gas stations and convenience stores within approximately a half mile of the interchanges. Although the new roadway may be intended to serve this kind of traffic, it is unlikely that that is the only traffic that will use the road, and therefore the assumption on which the analysis is based may be flawed. Further, there is no information presented to justify the projection that induced development will be restricted to a half-mile radius around the interchanges. The Oregon DOT methodology cited does not prescribe a half-mile radius, but instead indicates that the size of the study area should depend on the results of the preliminary traffic analysis. Larger travel time savings, new transportation corridors, and significant amounts of vacant land within ½ to 1-mile of the project suggest a larger study area for indirect impacts. In development of the FEIS, FHWA and Maine DOT should reconsider what size study area makes sense given local development patterns, commuting patterns, transportation demand, and other factors, and if needed, re-do the analysis. 2-2

We also disagree with the statement that "[b]ecause commercial and residential development would occur without implementation of a build alternative, it would not be considered a secondary impact solely related to the build alternatives." Simply because land is zoned for a particular purpose does not mean that it will be developed, at least in the foreseeable future. An analysis of induced development should estimate the development that would be induced by the transportation improvements and would likely not occur 'but for' the transportation improvement, at least through the design year. 2-3

Further, we believe the FEIS should include an assessment of the environmental impacts of induced development. These impacts are only addressed in a very general manner in the Cumulative Impacts section, and should be quantified to the extent possible in the FEIS. For example, the increased runoff and contaminant loading caused by the increase in impervious surfaces could be estimated. 2-4

Finally, we note that part of the preferred alternative uses a portion of an existing roadway (Route 9). Future development along this road (while the project awaits funding) could undermine system linkage and improved overall traffic flow and safety goals for the project. We encourage Maine DOT to work creatively with the town of Eddington to develop a strategy to preserve rights along this portion of the road (and 2-5

possibly control the number of future driveway cuts) until funding becomes available for the project. 2-5

Cumulative Impacts

We find no information in the DEIS to support the statement that residential and commercial development likely would continue to occur at the same rate and with the same characteristics with either the No-Build Alternative or one of the build alternatives. We recognize that growth rates in this study area are slower than in other parts of the state and region, but transportation projects have a long and well-known history of affecting development patterns, which is why we recommend refinement of the induced growth analysis to address this issue in the FEIS. 2-6

Air Quality

The I-395/Route 9 Transportation Project will be located in a portion of Penobscot County, Maine which is in attainment for all National Ambient Air Quality Standards (NAAQSs). Therefore transportation and general conformity requirements are not applicable. The air quality issue of concern associated with the construction and implementation of the proposed highway project is emissions from construction equipment (trucks and other nonroad equipment).

Reducing emissions from diesel engines is one of the most important public health challenges facing the country. EPA has finalized a number of clean fuel and vehicle emissions standards that will lead to dramatic emission reductions in new diesel-powered engines. Included within these rulemakings are cleaner fuel requirements, such as the use of ultra-low sulfur diesel, which will provide immediate emissions reductions in both new and older diesel engines. However, even with more stringent heavy-duty highway and nonroad engine standards set to take effect over the next decade; millions of diesel engines already in use will continue to emit excessive amounts of diesel exhaust which contribute to serious public health problems.

Emissions from older diesel engines can be controlled through: 1) strategies and technologies that reduce unnecessary idling, including auxiliary power units and the use of electric equipment; and 2) the use of advanced pollution control technology such as diesel oxidation catalysts or particulate filters that can be installed on the exhaust of the diesel engine. Retrofits have been successfully applied to many diesel engines across the country.

Given the public health concerns about diesel exhaust from heavy duty diesel trucks and other heavy duty construction equipment, EPA encourages FHWA and Maine DOT to commit to the use of diesel retrofits, cleaner fuels, and idle reduction measures to minimize emissions from diesel construction equipment. Retrofit technologies may include EPA verified emission control technologies and fuels and CARB-verified emission control technologies. A list of these diesel exhaust control technologies can be accessed at http://epa.gov/cleandiesel/verification/verif-list.htm. In addition, the 2-7

Northeast Diesel Collaborative has prepared model construction specifications to assist in developing contract specifications that would require construction equipment to be retrofitted with control devices and use clean fuels in order to reduce diesel emissions. The model construction specifications can be found on the Northeast Diesel Collaborative web site at URL address http://northeastdiesel.org/pdf/NEDC-Construction-Contract-Spec.pdf. We recommend that the project construction specifications be developed to incorporate these measures.

Drinking water supplies

The Preferred Alternative 2B-2 does not fall within any existing source water protection areas (SWPAs) in the study area. However, Alternative 5A2B-2 does fall within the 300-foot radius SWPAs for the Town & Country Motel (ME0007374) and the Traditional Golf Club (ME0094662). Therefore, effective BMPs to reduce the impacts from storm-water discharges and accidental spills of hazardous materials should be designed and implemented before, during and after highway construction along this route. For example, subsurface gravel wetlands have been found to be highly effective in mitigating metal and nutrient contaminants in storm water. We recommend that you refer to the University of New Hampshire Stormwater Center (link below) for more details about construction and performance of this BMP:

http://www.unh.edu/unhsc/sites/unh.edu.unhsc/files/pubs_specs_info/unhsc_gravel_wetland_specs_6_09.pdf

In addition, storm water outfalls should be located as distant as possible from public and private supply wells. MaineDOT is responsible for private well road salt contamination, and well proximity to road surfaces is a key factor for potential road salt contamination. We also recommend that low-salt deicing practices be strictly observed by MaineDOT along the entire corridor to minimize impacts to aquatic life and in particular in SWPAs that fall within the road alignments. We also recommend that MaineDOT work to monitor current chloride concentrations in receiving waters in the project corridor to establish a baseline against which project impacts can be tracked and evaluated. EPA has experience working with other New England DOTs to establish monitoring protocols and encourages MaineDOT to coordinate further with us on this issue. Please contact Doug Heath, a hydrogeologist with EPA New England (617-918-1585), for assistance with the development of an acceptable baseline monitoring plan for the project.

2-8

2-9

MaineDOT and the FHWA should contact the Maine CDC - Drinking Water Program and the Maine Geological Survey for additional information to help design a project that avoids and minimizes the potential for impacts to drinking water sources. Their contact information:

For Public Drinking Water Supply Locations and Source Water Protection Restrictions

Andrews Tolman
Maine Source Water Coordinator
Maine CDC - Drinking Water Program
11 State House Station
Augusta, ME
(207) 287-6196
Andrews.L.Tolman@maine.gov

For Private Well Location Data

Maine Geological Survey
22 State House Station
Augusta, Maine 04333
Phone: (207) 287-2801
Fax: (207) 287-2353
E-mail: mgs@maine.gov

Surface Water

The Preferred Alternative 2B-2 and Alternatives 5A2B-2 and 5B2B-2 will impact the Penobscot tributaries (from south to north) Felts Brook, Eaton Brook, a pond west of Day Road, an unnamed stream and associated wetlands in Eddington north of the NW corner of Holden Township, and Meadow Brook. We recommend that effective BMPs be implemented during and after highway construction to reduce the water-quality impacts of storm-water discharges to surface water resources. Please contact Doug Heath, a hydrogeologist with EPA New England (617-918-1585), for assistance with the development of effective BMPs for the project.

2-10

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
408 Atlantic Avenue – Room 142
Boston, Massachusetts 02110-3334

May 14, 2012

9043.1
ER 12/176

Mark Hasselmann
Right of Way and Environmental Programs Manager
Federal Highway Administration, Maine Division
Edmund S. Muskie Federal Building
40 Western Avenue, Room 614
Augusta, Maine 04330-6325

RE: Draft Environmental Impact Statement
I-395/Route 9 Transportation Study
Section 404 Permit Application and Supporting Information
Penobscot County, Maine
53411-2007-FA-459

Dear Mr. Hasselmann:

This is the U.S. Department of Interior's (Department) response to the Federal Highway Administration (Administration) and Maine Department of Transportation's (MEDOT) Draft Environmental Impact Statement/Section 404 Permit Application and Supporting Information (DEIS), dated March 23, 2012, for the I-395/Route 9 Transportation Study located in Penobscot County, Maine.

The Department's U.S. Fish and Wildlife Service (Service) has participated as a cooperating agency in the preparation of this DEIS since 2007. As such, the Service has been actively involved with the review of draft EIS chapters and has provided extensive comments during the development of the DEIS, focusing on their expertise related to fish and wildlife and their habitats, wetlands, and federally-listed species. Most recently (December 22, 2011), the Service provided comments on the complete Administrative DEIS. We note that many of the Service's December 2011 comments have been addressed in this DEIS.

GENERAL COMMENTS

The Department has no objection to the proposed selection of Alternative 2B-2 as the preferred alternative for this regional transportation study. We note, however, that this alternative would

result in considerable impacts to the natural environment, including freshwater wetlands, streams, and upland wildlife habitat. It will be important for the Administration and the MEDOT to continue to work with the Service and other state and federal agencies to ensure that environmental impacts are avoided and minimized as much as practicable, should 2B-2 (or any other alternative) proceed to design and construction in the future. Furthermore, it will be critical for the Administration and MEDOT to develop a compensatory mitigation plan that suitably compensates for the unavoidable loss of the wetlands, streams, and other natural resources as appropriate.

3-1

3-2

The DEIS Summary (**page s19)** identifies that one of the issues to be resolved in the future is working with the local communities to develop a corridor-preservation plan if a build alternative is ultimately selected as the preferred alternative for this study. We understand that the Administration and MEDOT do not currently have funding to move forward with construction of a build alternative following issuance of a Final EIS. It would be helpful, however, if the Final EIS could offer some timeframe within which corridor preservation and ultimately construction are likely to occur. If project construction is likely to be more than a few years from now, it would also be helpful if the Final EIS could provide some context for how the Administration and MEDOT will consider new or changed information since the Record of Decision (ROD). Along these lines, the DEIS notes that "future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project". The DEIS, however, does not indicate how such future development would be evaluated, if at all, at some time in the future when there is sufficient funding to proceed with construction of a preferred build alternative.

3-3

3-4

3-5

SPECIFIC COMMENTS

Chapter 2, Section 2.5 page 57 – The seventh paragraph notes that it will take "several years to finalize the engineering design before construction can begin." Yet the next sentence says that construction could begin in 2014, which is certainly less than "several years" from now or the likely issuance of a ROD and Final EIS in the near future. Please clarify this timing issue.

3-6

Chapter 3, general comment about map exhibits – This chapter provides many useful maps that show a wide variety of resources in the study area from undeveloped habitat blocks to surface waters and wetlands. However, it is difficult to visually "connect the dots" between the information presented about the affected environment and the environmental consequences of the three build alternatives. We recommend that all map exhibits in Chapter 3 show the three build alternatives that are being evaluated in the DEIS. This will greatly assist the reader in evaluating how each of the three alternatives will affect various resources and also in comparing the consequences of the three build alternatives.

3-7

Chapter 3, Section 3.1.2.2 page 78 (also page 183) – In designing new road-stream crossings, we encourage the adoption of "stream simulation"[1] design techniques that broadly consider aquatic organism passage and maintenance of natural stream functions rather than hydraulic

3-8

[1] U.S. Department of Agriculture, Forest Service (USDA-FS). 2008. Stream simulation: an ecological approach to providing passage for aquatic organisms at road-stream crossings. National Technology and Development Program. http://www.fs.fed.us/eng/pubs/pdf/StreamSimulation/index.shtml

design techniques that tend to focus on one target fish species for passage considerations, sometimes at the expense of other fish species and aquatic organisms. **3-8**

Chapter 3, Section 3.1.2.4 page 89 – The seventh paragraph gives a list of mammal species that have a "very strong" association with wetlands. Is this a generic list or are these mammal species that have been seen or would be expected to occur in wetlands in the study area? Information specific to wetlands in the study area would be of most value to the reader. **3-9**

Chapter 3, Section 3.1.4.1 Wildlife Habitat – As recommended previously, we still suggest that this section include the "core maps" from Maine's Beginning Habitat program instead of just including the map showing the undeveloped habitat blocks. **3-10**

Chapter 3, Exhibit 3.16 – We recommend that a different color is used in the Final EIS (not red) to show the existing utility corridors, because it is hard to differentiate between the utility corridors and the study area boundary. **3-11**

Chapter 3, Section 3.1.4.1 Wildlife Habitat page 102 – The DEIS notes that two large wildlife passage structures will be located on "both sides of Eaton Brook." We recommend that the Final EIS explain why these particular locations were chosen, including the wildlife species that are targeted to use the structures. Were any particular wildlife movement corridors identified during field studies? **3-12**

Chapter 3, Exhibit 3.22 – It would be helpful for the reader if the title for this figure gives the context for the term "Significant Habitat". In this case, the term refers to those habitats regulated as "significant" under Maine's Natural Resources Protection Act. **3-13**

Chapter 3, page 105 – The DEIS only notes waterfowl use of the study area for "feeding and staging". Given the wetland types present and the fact that the Maine Department of Inland Fisheries and Wildlife has mapped 2,877 acres of "Inland Waterfowl and Wading Bird Habitat" in the study area, we would expect some use by breeding waterfowl in the study area. If the Administration and MEDOT have information to show that waterfowl breeding does not occur in the study area, then we recommend that the Final EIS reflect this information. **3-14**

Chapter 3, page 106 – In the discussion of vernal pools, the Final EIS should be clear on whether or not the impacts to amphibian dispersal habitat from the build alternatives would be strictly limited to **upland** habitat (as stated in the DEIS) or whether these impacts would actually occur in both **upland** and **wetland** habitats (the later usually being the case in the general study area). **3-15**

Chapter 3, 3.1.5.1 Federal Endangered and Threatened Species – This section should note that if a build alternative is selected as the preferred alternative, then consultation under section 7 of the Endangered Species Act will be required to address effects to Atlantic salmon and its designated critical habitat. Furthermore, the Service will have the lead for this consultation (as opposed to the National Marine Fisheries Service, which shares joint jurisdiction with the Service for listed Atlantic salmon) because the project is located within the freshwater range of the salmon. **3-16**

Chapter 3, Exhibit 3.22 and page 108 – As mentioned in the text on page 108, Exhibit 3.22 does **not** appear to show the location of two bald eagles nests that are located near the Penobscot River and Eaton Brook. Please add these nest locations to the Exhibit.

3-17

Chapter 3, 3.2.1 Climate Change, page 109 – As the Service has commented during past reviews of this chapter, increasing the size of new road-stream crossings (compared to the typical MEDOT hydraulic design standard) would be an effective means to provide "resilience" to ecosystems in the face of the increasing numbers and severity of storms and floods as a result of climate change.

3-17

Chapter 3, page 169 – The discussion related to indirect impacts to vernal pools from the loss of forested habitat around the pool should explain the origin of the 750 foot distance.

3-19

Chapter 3, 3.8.1 Mitigation – The discussion of compensatory mitigation should be broader than just impacts to wetlands. We appreciate, for example, the efforts to date of the Administration and MEDOT to address the issue of wildlife habitat fragmentation during the alternatives analysis phase of this project. While the remaining build alternatives do reflect those efforts to minimize the effects of habitat fragmentation from the construction of a new highway, the preferred alternative, 2B2, would still result in some fragmentation of large blocks of wildlife habitat and the associated impacts to wildlife using these areas. As such, development of a compensatory mitigation plan for this project should consider this issue. It may be possible to address both wetland and habitat fragmentation impacts with the same compensation project(s). Given the likely scope of impacts to wetlands and other natural resources from any of the build alternatives, it will be very important for the Administration and MEDOT to continue to coordinate closely with state and federal agencies in the development of a robust compensatory mitigation plan.

3-20

3-21

Chapter 3, Fish Passage, page 183 – We suggest that this section be re-worked to include the broader topic of maintaining natural stream habitat and achieving aquatic organism passage in association with the construction of new road-stream crossings, rather than just addressing the narrow topic of fish passage. If a build alternative is ultimately selected, the Administration and MEDOT have an opportunity to install new crossings that follow "stream simulation" principles and have minimal impact on stream function, habitat, and aquatic organism passage. Properly designed road-stream crossings would certainly minimize the need for compensatory mitigation related to stream impacts.

3-22

3-23

The Department's U.S. Fish and Wildlife Service, Maine Field Office will continue to participate as a cooperating agency in this NEPA process, as well as other federal processes related to the I-395/Route 9 Transportation Study. Please contact Wende Mahaney of the Maine Field Office at (207) 866-3344, Ext. 118 if you have any questions regarding these comments.

Thank you for the opportunity to review and comment on this DEIS. Please contact me at (617) 223-8565 if I can be of assistance.

Sincerely,

Andrew L. Raddant
Regional Environmental Officer

MH
MD

U.S. Department of Homeland Security
United States Coast Guard

Commander
First Coast Guard District

Battery Park Bldg.
1 South Street
New York, NY 10004-1466
Staff Symbol: (dpb)
Phone: (212) 668-6380
Fax: (212) 668-7967
Email: Anthony.J.Lepre@uscg.mil

16596
March 29, 2012

CERTIFIED MAIL RETURN RECEIPT REQUEST

Mr. Mark Hasselmann
Maine Division, FHWA
40 Western Ave, Room 614
Augusta, ME 04330-6325

Dear Mr. Hasselmann,

Re: I-395/Route 9 Transportation Study

This office has reviewed the referenced transportation study. We offer comments regarding potential jurisdiction by the U.S. Coast Guard.

Our review identified some non-specific waterway crossings. In so far as structures crossing navigable waters of the United States may be subject to various Coast Guard authorities it is requested that as the project planning develops you provide this office with information regarding specific waterway crossings and navigational uses across waterways involved. At that time we will be better able to determine the full extent of our jurisdiction.

The following website: http://www.uscg.mil/d1/prevention/Bridges.asp is the Coast Guard Bridge Permit Application Guide that can assist you as the project planning continues to develop.

Thank you for the opportunity to provide input. If you have any questions do not hesitate to contact me at gary.kassof@uscg.mil.

Sincerely,

Gary Kassof
Bridge Program Manager
First Coast Guard District
By direction of the District Commander

RECEIVED
APR 6 2012
FHWA
Maine Division

Russ,

I have reviewed the I-395/Route 9 Transportation study draft environmental impact 404 permit application. I have just a few comments. The application 2B2 395 extension proposes to cross both Felts and Easton Brooks. Both have high value wild eastern brook trout populations and because of this we recommend crossing structures that our open bottom spans of 1.2 times the bankfull widths. **4-1**

One other item of note: Eddington and Holbrook Ponds have now been confirmed to have non-native invasive black crappie populations. **4-2**

Please let me know if you have any questions and I apologize for the tardiness of this review.

Best,

Greg

Gregory Burr
Regional Fisheries Biologist
Grand Lakes Region
Maine Dept. of Inland Fisheries & Wildlife
317 Whitneyville Road
Jonesboro, Maine 04648
(207) 434-5925

From: Reed, Robin K [mailto:robin.k.reed@maine.gov]
Sent: Thursday, April 19, 2012 10:40 AM
To: Clement, Jay L NAE
Subject: NAE-2001-02253 Connector Road between I-395 and Route 9; Brewer to Eddington, ME

NAE-2001-02253 Connector Road between I-395 and Route 9; Brewer to Eddington, ME

MHPC# 1847-02

Jay:

Regarding your public notice, we issued a no historic properties affected finding for this project in Nov. 2011. See attached.

Let me know if you need anything further for this project.

Robin K. Reed

Maine Historic Preservation Commission

55 Capitol Street
65 State House Station
Augusta, ME 04333
phone: 207-287-2132 ext. 1
fax: 207-287-2335

robin.k.reed@maine.gov

http://www.maine.gov/mhpc

STATE OF MAINE
Memorandum

Date: November 8, 2011

To: Earle G. Shettleworth, Jr., MHPC
From: David Gardner, Maine DOT/ENV
Subject: Section 106 request for concurrence
Project: Brewer-Eddington, I-395 Study, PIN 8483.20

The Maine DOT has reviewed this project pursuant to the Maine Programmatic Agreement (PA) and Section 106 of the National Historic Preservation Act of 1966, as amended.

The study consists of a new connector Road between I-395 and Route 9 in the Brewer, Holden, and Eddington area. The Federal action for this project is Federal funding and permits. The project is scheduled to have a Draft EIS on November 18, 2011.

The MaineDOT has 3 remaining build alternatives (2B2, 5A2B-2, and 5B2B-2). These remaining alignments are depicted on the attached map.

In accordance with 36 CFR Part 800.4, the following identification efforts of historic properties were made:

800.4(a) (1) - The Area of Potential Effect (APE) includes properties/structures within the project study area. The APE is shown as the study area on the attached map. The APE is the same as the study area.
800.4(a) (2) – Review of existing information consisted of researching the National Register and MHPC survey databases. The Maine Historic Preservation Commission Archaeological staff has also reviewed the undertaking.
800.4(a) (3) – The towns of Eddington, Brewer, Holden, Dedham and Clifton were contacted via letter and asked to comment on knowledge of, or concerns with, historic properties in the area, and any issues with the undertaking's effect on historic properties. The town was also requested to provide information regarding local historic societies or groups.
800.4(a) (4) – Letters outlining project location and scope were sent to the 4 federally recognized Tribes in Maine. The Tribes have been consulted with and no traditional cultural properties will be impacted.
800.4(c) – This study area has already been determined to have no National Register eligible or listed architectural resources in the APE (August 15, 2008). A Phase I/II archaeology survey has been completed as well. There are two archaeological sites on the remaining alignments that have been determined not to be eligible for the National Register. MHPC archaeological staff has determined that "there will be no archaeological properties affected by the proposed undertaking."

In accordance with 36 CFR Part 800.4(d), ***the MaineDOT has determined that no historic or prehistoric archaeological properties or historic architectural properties will be affected by Alternatives 2B2, 5A2B-2, 5B2B-2.***

In accordance with the PA and 36 CFR Part 800, please reply with your concurrence or objection to this determination of effect within 30 days.

Please contact me at David.Gardner@maine.gov or 592-2471 if you have any questions. Thank you.

cc: CPD e-file
enc: Study Area Map
Archaeology Memo (11.4.11)
SHPO concurrence memo (8.15.08)

CONCUR

Kirk F. Mohney
Kirk F. Mohney,
Deputy State Historic Preservation Officer

11/22/11
Date

Maine Natural Areas Program

17 Elkins Lane

State House Station #93

Augusta, Maine 04333

Date: March 16, 2012

To: Russ Charette, MDOT

CC: Mark Hasselmann, FHWA

From: Don Cameron, Ecologist

Re: Rare and exemplary botanical features, Route 395, Alternative 2B-2, Holden, Maine.

I have searched the Natural Areas Program's Biological and Conservation Data System files for rare or unique botanical features in the vicinity of the proposed site in response to your request received by our office March 15, 2012 for our agency's comments on the project.

According to our current information, there are no rare botanical features that will be disturbed within the project site. This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

5-1

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We welcome the contribution of any information collected if a site survey is performed.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact our office if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

CITY OF BREWER, MAINE
IN CITY COUNCIL ASSEMBLED

2012-B008 March 13, 2012

TITLE: RESOLVE, TO WITHDRAW SUPPORT FROM THE I-395 AND ROUTE 9 CONNECTOR PROJECT AND TO SUPPORT THE NO BUILD OPTION.

filed March 7, 2012
by Jerry Goss, Joseph Ferris,
Larry T. Doughty,
Arthur Verow and
Kevin O'Connell

WHEREAS, the Maine Department of Transportation (MDOT) is currently reviewing possible routes for a transportation connection between the current end of I-395 in Brewer to Route 9 in either Eddington or Clifton; and

WHEREAS, the City of Brewer has been a major supporter of efforts to improve east-west transportation connections in Maine, including the need to extend I-395 in Brewer to meet Route 9 in Eddington/Clifton; and

WHEREAS, the City has gone on record on numerous occasions about the need to take into account local, regional, and statewide transportation considerations in selecting a final route for this important transportation connector; and

WHEREAS, the proposed 2B route will have a significantly negative impact on many residential properties; and

WHEREAS, the proposed 2B route impacts a significant amount of wetlands; and

WHEREAS, the City of Brewer and other stakeholders have been excluded from the public process as well as the decision-making process used by MDOT;

NOW, THEREFORE, BE IT RESOLVED, that the City Council does hereby withdraw its support for the proposed construction of the I-395 extension to Route 9; and

BE IT FURTHER RESOLVED, that the City of Brewer now supports the "no build" option for this project; and

BE IT FURTHER RESOLVED, that City of Brewer requests and urges MDOT to use a more open and transparent process when making decisions that impact multiple municipalities, their governing bodies, and their citizens.

Date: MAR 15 2012

This is a true and attested copy of a resolve adopted by unanimous vote of the City Council of Brewer at a regular meeting held on Tuesday, March 13, 2012 at 6:00 p.m. at which time all members of the council were present and voting.

a true copy, attest Howard F. Kroll, City Clerk
Brewer, Maine

Town of Eddington
906 Main Road • Eddington, Maine 04428

RESOLVE

TO WITHDRAW SUPPORT FROM THE I-395 AND ROUTE 9 CONNECTOR PROJECT AND TO SUPPORT THE NO BUILD OPTION.

WHEREAS, the Maine Department of Transportation (MDOT) is currently reviewing possible routes for a transportation connection between the current end of I-395 in Brewer to Route 9 in either Eddington or Clifton; and

WHEREAS, the Town of Eddington has been a major supporter of efforts to improve east-west transportation connections in Maine, including the need to extend I-395 in Brewer to meet Route 9 in Eddington/Clifton; and

WHEREAS, the Town of Eddington has gone on record on numerous occasions about the need to take into account local, regional, and statewide transportation considerations in selecting a final route for this important transportation connector; and

WHEREAS, the proposed 2B-2 route will have a significantly negative impact on many residential properties; and

WHEREAS, the proposed 2B-2 route impacts a significant amount of wetlands; and

WHEREAS, the Town of Eddington and other stakeholders have been excluded from the public process as well as the decision-making process used by MDOT;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Selectmen does hereby withdraw its support for the proposed construction of the I-395 extension to Route 9; and

BE IT FURTHER RESOLVED, that the Town of Eddington now supports the "no build" option for this project; and

BE IT FURTHER RESOLVED, that Town of Eddington requests and urges MDOT to use a more open and transparent process when making decisions that impact multiple municipalities, their governing bodies, and their citizens.

Joan A Brooks, Chairman

Charles Grover, Jr., Vice Chair

Donn Goodwin

Charles Baker, Jr.

Peter Lyford

Dated: April 24, 2012

ATTEST: A TRUE COPY
Russell J. Smith
4/24/2012

Phone: (207) 843-5233 • Fax: (207) 843-7758

From: gpilot@maineline.net [mailto:gpilot@maineline.net]
Sent: Monday, May 14, 2012 1:11 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I am a ship pilot in Eastport and have run for many years fish processing operations in Washinton County which typically sent one to two trucks per weekday to Portland and Boston with Aquacultured Salmon and sea urchins and scallops.

It is clear that route 46 is very overworked with truck traffic from and to the Maritime Povinces and Washington County in order to keep the trucks out of the urban Bangor and Brewer dowtowns to get to I-395. The State (and Feds) have spent more than $60,000,000 upgrading the Airline (Route 9) into a very decent roadway. The last connection to I-395 is critical to Eastern Maine's economy and future.

The Port and City of Eastport depend on the I-95/I-395/Route 46/Route 9 corrider for increased business and economic health. Route 46 is a real bottleneck that needs to be bypassed to give the heavy trucks an alternative to Route 46. The intersections at each end, the housing, the school, and the Route one traffic are all reasons to make the new connector from Route 9 to I-395 a reality as soon as possible.

Most Respectfully,
Bob Peacock.
Quoddy Pilots USA
Member of Eastport City Council
Member of Eastport Port Authority
President, Nordic Delights Foods, Inc.
Box A: #!&576
E-Mail: gpilot@maineline.net
Name: Captain Robert J. Peacock
Address: 99 Toll Bridge Road, Eastport, ME 04631 Telephone Number:

Date: 05/14/2012

From: davemilan@bucksport.biz [mailto:davemilan@bucksport.biz]
Sent: Monday, May 14, 2012 3:59 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: Bucksport is the destination/origination for many of the truck traffic utilizing Rte 9. Presently these trucks are forced to use Rte 46 from Rte 9 to Rte 1. This road was NOT built for this type, or high number, of truck traffic. I am in favor of option 2B-2 as this will enable the truck traffic to use Rte 15 from Brewer to Bucksport which IS built for the type/number of truck traffic traveling to/from Verso Paper Company, Webber Tanks, Dead River,etc. In addition, those trucks traveling to and from Searsport (Mack Point) that travel through Bucksport, would benefit from 2B-2 as well.
Box A: #!&576
E-Mail: davemilan@bucksport.biz
Name: David Milan, Economic Development Director
Address: Town of Bucksport, PO Drawer X, Bucksport, ME 04416 Telephone
Number:
Date: 05/14/2012

From: jmelrose@eatonpeabody.com [mailto:jmelrose@eatonpeabody.com]
Sent: Monday, May 14, 2012 11:10 AM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: The American Council of Engineering Companies of Maine supports MaineDOT's preferred alternative of 2B-2.
1. As a two lane controlled access extension of Route 9, local impacts can be minimized compared to a four lane extension of existing I-395 or as compared to a no build option. This alternative appears to strike the best balance in minimizing environmental impacts and holds the added benefit of being a least cost approach.
2. The connection of Route 9 to I-395 is the last major piece to complete in an over two decade effort to safely, efficiently and reliably connect Downeast Maine and the Canadian Maritimes to Maine's interstate system. Tens of millions in investment has gone into rebuilding Route 9 Downeast including the addition of over two dozen miles of passing lanes. A new border crossing in Calais is now in place as well. The full potential of all of these investments will not be realized if 2B-2 is not constructed.
3. We would urge the Department to consider and compare the quality of life impacts for residents under the no-build scenario and the 2B-2 option. 2B-2 should also compare very well in terms of relative safety and economic benefits for the region and the state. **6-1**
4. It should be apparent that the construction of 2B-2 will also improve the viability of public and private investments in the Ports of Eastport, Searsport and Bucksport. **6-2**
5. We are aware that there are local concerns with this project. We would urge the Department to persevere and work toward open communication with the communities located in the path of 2B-2 to remove all misunderstandings and to reach all accommodations practical to minimize impacts to surrounding properties and lower costs.
Thank you for considering these comments. We urge the completion of 2B-2 to create economic opportunity for Maine by enhancing our competitive position.
Box A: #!&576
E-Mail: jmelrose@eatonpeabody.com
Name: John Melrose, Executive Director
Address: ACEC of Maine, P.O. Box 5191, Augusta, Me. 04332 Telephone Number:
Date: 05/14/2012

From: jodea@agcmaine.org [mailto:jodea@agcmaine.org]
Sent: Monday, May 14, 2012 5:17 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: To Whom it May Concern;
The members of Associated General Contractors of Maine have been ardent supporters of 2B-2 for some time. Our member companies are in the business of building civil infrastructure and know the difference between a properly sited project and one that is not properly sited.

Of all the possible routes, 2B-2 is the one that has the most potential for improving safety and improving the flow of goods between I-95 / I-395 and Route 9. We believe there is great value in keeping truck traffic out of downtown areas and neighborhoods. Many of those trucks belong to our member companies and are used to haul aggregate, building materials and equipment to and from construction sites arounf the state.

We urge you to accept 2B-2 and help expedite this important project.

John O'Dea
CEO, AGC Maine
Box A: #!&576
E-Mail: jodea@agcmaine.org
Name: John O'Dea
Address: 188 Whitten Road Augusta, Maine 04330 Telephone Number:

Date: 05/11/2012

April 12, 2012

Mr. Jay Clement, ACOE
Mr. Shawn Mahaney, ACOE
Mr. Russ Charette, MDOT

BREWER
LAND TRUST

Gentlemen,

On behalf of the Brewer Land Trust, I am asking that the BLT be considered a resource during the planning and design of the proposed I-395/Route 9 Connector Road.

The Brewer Land Trust currently holds several conservation easements as part of wetland mitigation plans as well as fee-ownership of a parcel at the convergence of Felts Brook and the Penobscot River which was a result of the Lowe's mitigation plan. The BLT thanks the agencies involved for their roles in these events.

The mission of the Brewer Land Trust is:

> "To cooperatively protect and preserve the natural and scenic resources of the City of Brewer and State of Maine, to encourage open space and green areas, to increase public awareness and understanding of the importance in conservation of natural resources and the interrelationships that exist among them, and to foster a trail system connecting to public areas and regional trails with all of the above for the enjoyment and benefit of present and future generations."

The main goal of the BLT is to protect and enhance Felts Brook, which is also the designated priority watershed for the City of Brewer. Felts Brook is documented for Atlantic Salmon spawning and rearing according to the Beginning With Habitat maps and have also been seen by local residents.

The Brewer Land Trust is concerned with any new development along or road crossing Felts Brook, as is the current preferred route of the proposed I-395/Route 9 Connector Road. There is a large NWI wetlands, along with its riparian habitat, located at the end of I-395 which would be effected by this proposed road. As shown on the Beginning of Habitat maps, there is a large amount of High Value Habitat for Priority Trust Species located not only in and around this NWI wetland, but also along the entire length of Felts Brook all the way to the Penobscot River. The BLT has been working with landowners and developers to obtain conservation easements or fee ownership along Felts Brook. The Lowe's store, located in this vicinity, also has a portion of their property along Felts Brook under deeded conservation as part of their mitigation plan.

7-1

There is also an Inland Waterfowl/Wading Bird Habitat located at the at the existing I-395 interchange. Much of this land is currently protected by an 81-acre deed-restricted parcel as part of the Maritimes and Northeast Pipeline mitigation plan. Any major new development nearby is a concern, as well as concerns with jeopardizing the protection measures currently in place.

7-2

The Brewer Land Trust urges all agencies to closely review the environmental impacts the proposed I-395/Route 9 Connector Road will have on Felts Brook and adjoining habitats.

Thank you for your time and if the BLT can be of any assistance, please let us know.

Sincerely,

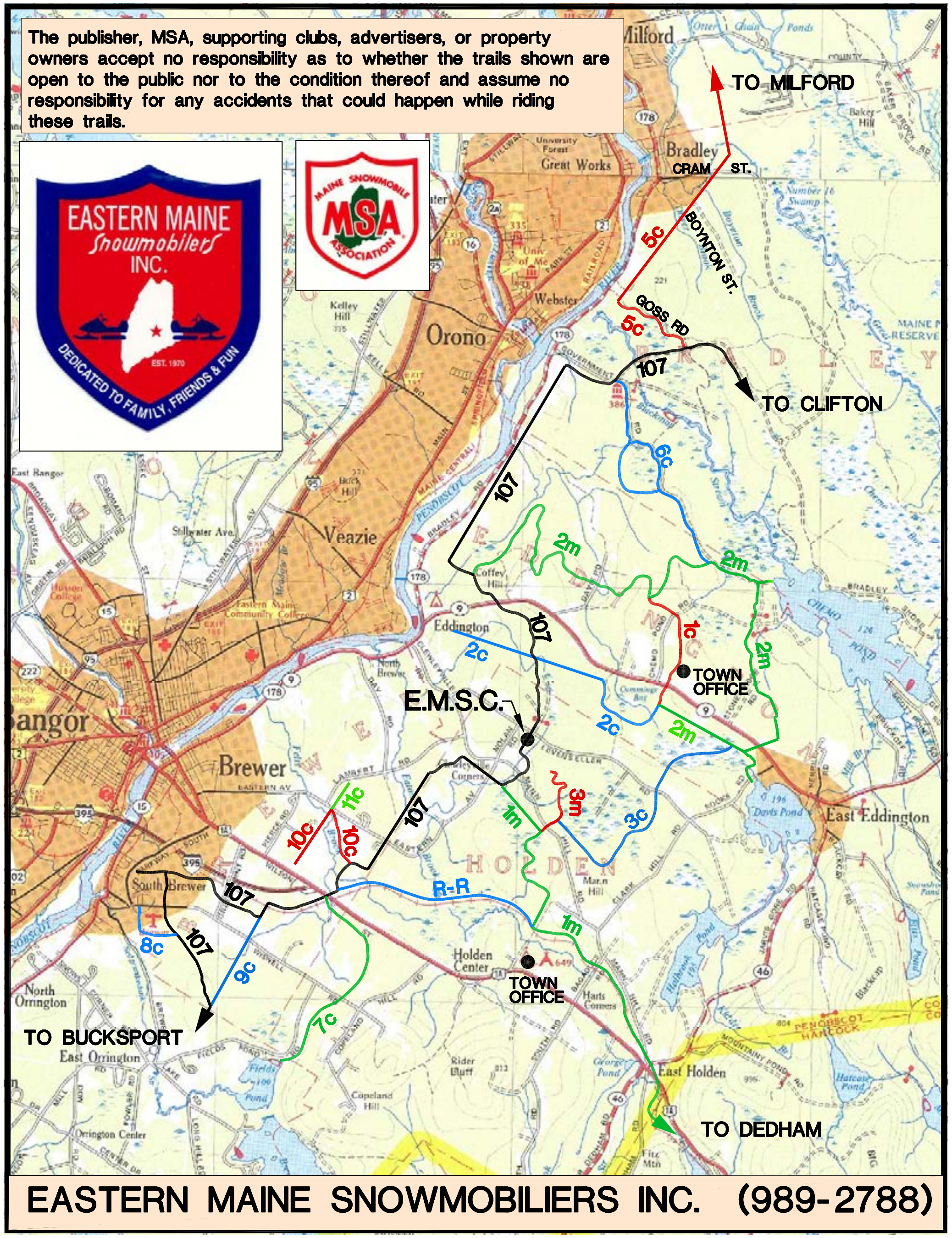
Brewer Land Trust
c/o Linda Johns
Brewer City Planner
221 Green Point Road
Brewer, Maine 04412
ljohns@brewerme.org

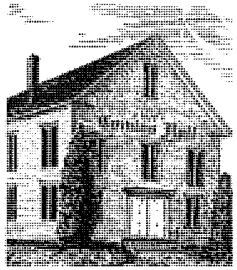
From: llafland@midmaine.com [mailto:llafland@midmaine.com]
Sent: Wednesday, May 02, 2012 8:36 AM
To: Charette, Russ
Cc: llafland@midmiane.com
Subject: EASTERN MAINE SNOEMOBILERS MAP

Russ,
As per our conversation at the Brewer meeting, I am sending you a new map of the trail system for the EASTERN MAINE SNOWMOBIERS in Brewer, Holden, Eddington ect.

8-1

Thanks Larry Lafland
Trail Master and Project Director for grants


The publisher, MSA, supporting clubs, advertisers, or property owners accept no responsibility as to whether the trails shown are open to the public nor to the condition thereof and assume no responsibility for any accidents that could happen while riding these trails.
EASTERN MAINE Snowmobilers INC.
DEDICATED TO FAMILY, FRIENDS & FUN
EST. 1970
MAINE SNOWMOBILE ASSOCIATION
MSA
TO MILFORD
CRAM ST.
BOYNTON ST.
GOSS RD
TO CLIFTON
TOWN OFFICE
E.M.S.C.
TO BUCKSPORT
TO DEDHAM
107
5c
6c
2m
1c
2c
3c
3m
1m
R-R
7c
8c
9c
10c
11c
Milford
Bradley
Orono
Veazie
Eddington
Bangor
Brewer
South Brewer
Holden
Holden Center
East Holden
East Eddington
North Orrington
East Orrington
EASTERN MAINE SNOWMOBILIERS INC. (989-2788)



Eddington – Clifton Civic Center

The chain to denote strength from unity — the darkened portions of the chain spell out ECCC

ECCC
PO Box 306
Eddington, ME 04428-0306

5/10/2012

Russell Charette
Maine Dept. of Transportation
16 State House Station
Augusta, ME 04333-0016

Re: I-395/Rt. 9 Connector Project – Draft Environmental Impact Statement Public Comments

Mr. Charette:

I am writing to you on behalf of the Board of Directors of the Eddington-Clifton Civic Center, also known as Comins Hall ("the Hall"), regarding the Draft Environmental Impact Statement for the I-395/Rt. 9 Transportation Study. The Hall, located near the intersection of routes 46 and 9 at 1387 Main Road in Eddington, is a registered 501-c(3) not-for-profit organization run by volunteers and is listed on the National Register of Historic Places. The Hall serves as the regular meeting place for several local organizations, including the Grange, the Boy Scouts, and the Airline ATV Riders; hosts private and public events for community members; serves as the "home stage" for a local theater company; and holds fund-raising events for the Hall several times each year – public suppers, a "Haunted Hall" at Halloween, a variety show, and more. Most of these events and meetings bring large numbers of people to Hall, totaling as many as 4000 per year. As Route 9 currently stands, certain challenges exist that make entering and exiting the Hall parking area difficult:

- The Hall sits on a relatively small lot in an otherwise residential area; therefore our space for access to the parking lot is limited.
- Entering the parking lot from the west presents a hazard as vehicles are approaching downhill and usually exceeding the 35 mile-per-hour speed limit. (This also presents a hazard for exiting the Hall.)
- This is already a high-volume traffic area, hence the need for this study.

It is for these reasons – the safety of community members visiting the Hall and other travelers on Route 9 – that we ask for clarifications in the final revision of the Environmental Impact Statement. First, we have questions concerning terms used in the Draft Environmental Impact

Statement. The first term is "safety," as we noted that the study purpose (described in several places, including pages s3 in the "Summary" and 5 through 7 in Chapter 1, section 1.2) includes, as its third point, the admirable goal to "improve safety on Routes 1A and 46." Why is safety on Route 9 not a concern? What good does it do to make routes 46 and 1A safer if Route 9 becomes less safe? Also, section 1.2, on pages 6-7 lists several goals adopted by the Public Advisory Committee (PAC) that includes "neighborhood protection" and "historical/archaeological preservation." We support these goals of the PAC, but request clarification of how potentially widening Route 9 to four lanes (per section 2.2.2.2 and elsewhere) protects the neighborhood to the west of the intersection of routes 46 and 9 where the Hall is located. Moreover, please clarify how widening Route 9 almost to the doorstep of a historic building such as Comins Hall, which again is listed on the National Register of Historic Places, preserves the historical nature of our small towns.

9-1

Next we want to point to exhibit 1.6 on page 11. This table shows that at current traffic volume – actually a projection of 2010 traffic volumes – the proposed connector route could shift up to 600 more trucks per day onto Route 9 and up to 3000 more total automobiles, which would travel past the Hall. These data lead to a series of questions crucial to the safety of visitors of the Hall and other travelers driving past the Hall. Section 2.2.2.2, on page 40, states that, "After careful consideration of those factors, the MaineDOT determined that Route 9, with the exception of the sections approaching the intersection of Routes 9 and 46 where the posted speed limit is lower than other segments of Route 9, could reasonably accommodate future traffic volumes for the next 20 years without additional improvements beyond the existing right-of-way." How exactly did MaineDOT reach this conclusion? The list of criteria provided does not explain this process. This leads to our main concern: Is MaineDOT planning to widen Route 9 near the intersection of 9 and 46? If so, please provide a map showing exactly how far back from the intersection this would stretch. Adding two more lanes of traffic in front of the Hall would have three significant effects on the Hall and nearby residences:

- This would provide a beneficial turning lane for east-bound traffic, thereby making turning into our parking area safer.
- This would, however, increase the difficulty of west-bound traffic turning across two lanes of traffic into our parking area, increase the length of time cars would have to wait to turn thereby creating traffic delays, and generally make driving through this stretch of road more dangerous.
- This change could further limit the size of the entrances and exits to the Hall parking area, thus adding to the problems listed above.

Moreover, these factors could be even further complicated and made more dangerous with the increase in traffic flow going past the Hall to both the east and west. Is MaineDOT certain that widening Route 9 at this point would truly be sufficient to handle the increase in traffic flow? Our final concern on this issue is the practicality of completing the project aims within the existing right-of-way.

The Board of Directors is not taking a position for or against the proposed I-395/Route 9 connector at this time, but we think these questions and concerns need to be addressed before

a decision is made. The Hall serves as a critical part of the social life and community atmosphere for Eddington and Clifton, and our neighboring towns as well. Comins Hall has stood straight and square for more than one hundred and thirty years, and is now truly a historic landmark and symbol of community spirit. Community members – all volunteers – have worked very hard to get the Hall to where it is today – a vibrant community center for our small towns. We, the Board of Directors, could not support any project that threatened the safety and well-being of the Hall or its patrons, or the close-knit sense of community in Eddington and Clifton.

We appreciate your time and attention on this very important matter.

Sincerely,

Joshua Parda
Director, Eddington-Clifton Civic Center

Eddington-Clifton Civic Center Board of Directors:
President: Carrie Johnson
Vice President: Louie Dougherty
Secretary: Vernon Shaw
Treasurer: David Peppard

Directors:
Irelann Kerry Anderson
Gabor Degre
Louie Dougherty
Margaret McKinney
Peggy Merritt
Josh Parda
Sara Yasner

From: maria@mbtaonline.org [mailto:maria@mbtaonline.org]
Sent: Tuesday, May 15, 2012 2:49 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: To whom it may concern:,

On behalf of the Maine Better Transportation Association, I wanted to express our strong support for the Alternative 2B-2 as identified by MaineDOT and FHWA. The I-395 connector is a lifeline to Route 9, which is the artery to Washington County, one of the areas of Maine which most struggles economically, and one which most needs the economic shot in the arm which this project could provide. The state spent over two decades rebuilding Route 9, and the I-395 connector is an essential component to completing that lifeline. We are also concerned about safety, and after supporting the 100,000 pound weight limits on the interstate, the connector would take many trucks off the roads that cannot support them as well as an interstate-level road would. This will improve safety, and improve community living as well. Thank you.
Box A: #!&576
E-Mail: maria@mbtaonline.org
Name: Maria Fuentes
Address: 146 State Street, Augusta, ME 04330 Telephone Number:

Date: 05/15/2012

From: Dubois, Addy [mailto:adubois@emh.org]
Sent: Monday, April 30, 2012 4:28 PM
To: Charette, Russ
Cc: ahamilton@eatonpeabody.com; Martin, Glenn (VP & General Counsel)
Subject: FW: BPC Site Plan

Russ, attached is the autocad site plan for the EMHS Whiting Hill site. I assume you already have the PDF version.

Addy Dubois
Director Property Management & Environmental Safety
EMHS
43 Whiting Hill Road
Brewer, ME 04412

From: Rayshelly Lizotte [mailto:slizotte@amesmaine.com]
Sent: Monday, April 30, 2012 3:24 PM
To: Dubois, Addy; MacDougall, Patty
Subject: BPC Site Plan

Here's the autocad drawing for the whole BPC site.
The view showing our title block is just a portion of it. If you need help with finding the rest of the drawing info, please let me know.

Rayshelly Lizotte, P.E
Principal, Civil Engineer

AMES ASSOCIATES LLC
ARCHITECTS ENGINEERS

E: slizotte@amesmaine.com

115 Main Street
Bangor, ME, 04401

From: dcolter@gacchemical.com [mailto:dcolter@gacchemical.com]
Sent: Tuesday, May 15, 2012 9:55 AM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: On behalf of GAC Chemical in Searsport, we support Alternative 2B-2 for the I-395 / Route 9 transportation study. GAC currently travels Route 46 to Route 9 for product deliveries to the mill in Woodland on average 3-4 times per week. Route 46 is not a good road for a chemical tank truck. During the spring months when Route 46 is posted with weight limits, our trucks are forced to use alternate routes. As such, we are anxious to see this transportation study move forward. 10-1

Sincerely,
David Colter
President
GAC Chemical Corporation
Box A: #!&576
E-Mail: dcolter@gacchemical.com
Name: David Colter
Address: 34 Kidder Point Road; P.O. Box 436 Searsport, ME Telephone Number:
Date: 05/15/2012

From: pilots@penbaypilots.com [mailto:pilots@penbaypilots.com]
Sent: Tuesday, May 15, 2012 4:28 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: Dear Sir or Madam,

I am writing in support of alternative 2B-2 for the I-395/Route 9 connector. This alternative is necessary for the safe, reliable, and efficient transportation of goods and materiels in this region. Much of the truck traffic that is bound to or from the ports of Searsport and Bucksport would utilize this proposed route, thereby avoiding the need to use route 46 or route 9 through Brewer center. As a business owner who relies on cost-effective transportaton in and out of Maine's mid-coast ports, I support the enhanced safety and efficiency that alternative 2B-2 would provide.
Respectfully,
Captain David T. Gelinas
Penobscot Bay & River Pilots Association Box A: #!&576
E-Mail: pilots@penbaypilots.com
Name: David T. Gelinas
Address: 18 Mortland Rd, Searsport, ME 04974 Telephone Number:
Date: 05/15/2012

From: jhanley@pikeindustries.com [mailto:jhanley@pikeindustries.com]
Sent: Monday, May 14, 2012 7:05 AM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I support the Department's choice of route 2B-2 to connect
I-395 to Rte 9. Our company trucks construction materials out of locations in
Hermon and Prospect and we recognize the critical need for this connector.
2B-2 is the most logical and least impactful route to accomplish a connection
that will improve the economic potential of the greater Bangor-Brewer area.
We urge the Department to move forward and secure funding for this alternative.
The sooner this is built, the better for transportation providers and the general
economy of the area.
Thank you for the opportunity to provide comment.
Box A: #!&576
E-Mail: jhanley@pikeindustries.com
Name: James Hanley
Address: 58 Main St, Westbrook, Me 04092 Telephone Number:
Date: 05/14/2012

From: jtherriault@spragueenergy.com
[mailto:jtherriault@spragueenergy.com]
Sent: Friday, May 11, 2012 2:39 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: It is of interest to Sprague Energy that MaineDOT's proposed connection of Route 9 directly to I-395 proceed to construction. For cargoes we and others handle coming into the Port of Searsport that are then transported east on Route 9 our current route options are less than ideal from a transportation efficiency perspective, a safety perspective and a quality of life perspective. More specifically a windmill project arriving at the terminal for delivery this summer will require many oversize trucks to take a more indirect route which passes through most of Brewer. A link between the current terminus of I-395 to Route 9 on a controlled access highway will be much less intrusive to the residents of the communities we travel through. It should be clear that the Interstate and roads like Route 9 east of Eddington offer much better safety for everyone as compared to using current Route 46 from Route 9 to Bucksport or Route 9 west of Eddington and through the most dens!
ely settled portions of Brewer. Finally, in the business we are in, transport times can make the difference between securing a job or not.
This project will save us and many other businesses time and that will make us all more competitive and the economy of our region stronger. We urge the Department to minimize impacts and proceed to construction. 11-1
Box A: #!&576
E-Mail: jtherriault@spragueenergy.com
Name: James Therriault
Address: Sprague Energy, Trundy Road, Searsport Maine Telephone Number:

Date: 05/11/2012

From: dhermann@wymanandsimpson.com [mailto:dhermann@wymanandsimpson.com]

Sent: Thursday, May 17, 2012 11:04 AM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: Alternate 2B-2 is the alternate of least impact on a project vital to the economy of downeast Maine. This project has been in the works for years and needs to be constructed.
Box A: #!&576
E-Mail: dhermann@wymanandsimpson.com
Name: Doug Hermann
Address: #18 Clipper Cir Yarmouth, ME 04096 Telephone Number:

Date: 05/17/2012

I-395/Route 9 Transportation Study

Comment Form

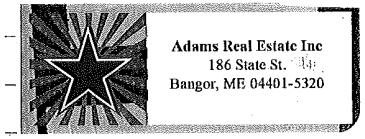
(comment form continued overleaf)

Name: Hilma H Adams

Address: 263 Main Road
Eddington, Me 04428

Phone No. (in case we need to ask for clarification):

Email address (if you would like to receive an occasional newsletter on the study):
HILMA.ADAMS@MADRUNNER.COM



Mail your comments to:

Russell Charette	Mark Hassellmann
MaineDOT	FHWA Maine Division
16 State House Station	Edmund S. Muskie Federal Building
Augusta, ME 04333-001640	Western Avenue, Room 614
	Augusta, Maine 04330

www.i395-rt9-study.com

5/3/12

I-395/Route 9 Transportation Study - Comment form

The routes that would go over my property (Map 5 – Lot 20) would interfere with my waterways and all aquatic life, all animals from mice to moose. And we have a honey bee line on our property which either highway would impact. My property is shown on your map as PHILMA INC.

There is an old Indian Encampment at the easterly end of my property and encompasses several other lots abutting mine. My husband's grandfather used to trade horses and other items with the Indians. He often told of the Indians'ability to select the best horses. The encampment is there, regardless of what you have been told or have not been told, and very easy to locate. If you need help, I can lead you there on a map or on foot. 12-1

The proposed routes would cut off the snow mobile trail. The right to build, maintain and/or travel over my property was granted to Eastern Maine Snowmobile Club. It was the first written legal agreement in the state of Maine of this nature. My husband and I were honored by Governor King several years ago for this. We would want to continue with this agreement in the future. We definitely would have to talk should one of these routes be selected. 12-2

Either route would land lock our duck hunting pond. We need to talk about this as I have hunters that come yearly to duck hunt in what we call "Lil Dunkin Pond". I was told at the Open House in Eddington yesterday that I would be paid for this if.....? Or there is a 75 foot bridge over the pond and we could canoe under it. I don't think so. We need to talk about this. 12-3

If one of them is chosen and you go through my back hay fields, which we hay every year, you would be taking my farm land and you would be crossing my brook either three or four time.

My husband's ashes are at the Waterfalls (it looks like one of the routes would take in that area). It is sacred land. And we cannot allow a highway beside it or over it. We need to discuss. 12-4

I came away from the meeting with this thought in mind. Not one of the proposed highways enter in to Route 9 East of Route 46 (Beyond the TradeWinds Store). Therefore, you must start over and come up with a better plan or it will never be accepted by the public.

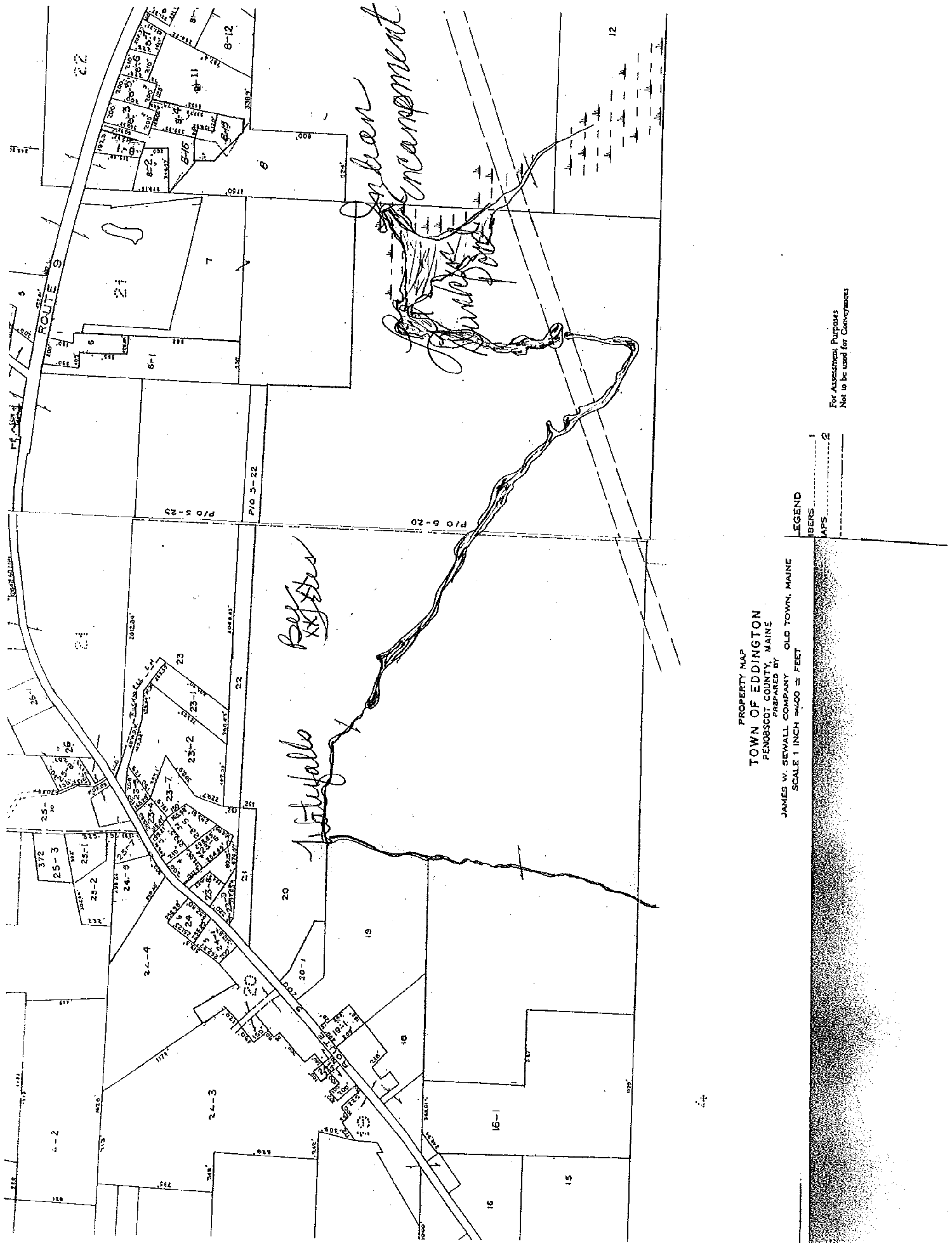
If for any reason, you do not start over, and you continue in the same way you have been doing, then I recommend that you make an appointment with me to discuss the above situations.

Sincerely,

Hilma H Adams

Hilma H Adams

Hilma.Adams@roadrunner.com


PROPERTY MAP
TOWN OF EDDINGTON
PENOBSCOT COUNTY, MAINE
PREPARED BY
JAMES W. SEWALL COMPANY OLD TOWN, MAINE
SCALE 1 INCH = 400 FEET
For Assessment Purposes
Not to be used for Conveyances
ROUTE 9

DEIS Comment/Question # 1.

Submitted by: Larry Adams, a Brewer resident, on April 13, 2012

Why is the MaineDOT/FHWA/USACOE changing history? - Why the difference now in the DEIS? - See below:

How/Why/When did alternative 2B become Practicable and meet all the Purposes and Needs of the Study?

Family 2 – Northern Alternatives

Alternatives	Description	Meets Purpose		Meets Needs			Practicable	Results
		Study Purpose	USACE Purpose	System Linkage	Safety Concerns	Traffic Congestion		
Alternative 2A	• Satisfies design criteria • Length: 4.6 mi. of new alignment, 4.5 mi. of Route 9 without additional improvement • Bridge length: 5,200 ft. • Earthwork: 1.0 mcy (0.2 mcy cut, 0.8 mcy fill)	Yes	Yes	In the near-term (Year 2035)	Yes	Yes	Yes	• **Dismissed - other alternatives less environmentally damaging** • Wetlands impacts: 26 ac. • Stream crossings: 3 (2 with anadromous fish) • Floodplain impacts: 11 ac. • Notable wildlife habitat: 4.4 ac. • Undeveloped habitat: 248 ac. • Prime farmland: 30.0 ac. • Residential displacements: 8
Alternative 2B	• Satisfies design criteria • Length: 5.8 mi. of new alignment, 4.2 mi. of Route 9 without additional improvement • Bridge length: 4,354 ft. • Earthwork: 1.8 mcy (0.9 mcy cut, 0.9 mcy fill)	Yes	Yes	In the near-term (Year 2035)	Yes	Yes	Yes	• **Dismissed - other alternatives less environmentally damaging** • Wetlands impacts: 28 ac. • Stream crossings: 6 (2 with anadromous fish) • Floodplain impacts: 11 ac. • Notable wildlife habitat: 4.4 ac. • Undeveloped habitat: 647 ac. • Prime farmland: 23.3 ac. • Residential displacements: 2
Alternative 2B-1	• Satisfies design criteria • Length: 10.2 mi. of new alignment • Bridge length: 2,232 ft. • Earthwork: 3.5 mcy (1.7 mcy cut, 1.8 mcy fill)	Yes	Yes	Yes	Yes	Yes	Yes	• **Dismissed - other alternatives less environmentally damaging** • Wetlands impacts: 35 ac. • Stream crossings: 5 (2 with anadromous fish) • Floodplain impacts: 11 ac. • Notable wildlife habitat: 0 • Undeveloped habitat: 1,362 ac. • Prime farmland: 37.0 ac. • Residential displacements: 9
Alternative 2B-2	• Satisfies design criteria • Length: 6.1 mi. of new alignment, 4.2 mi. of Route 9 without additional improvements • Bridge length: 2,232 ft. • Earthwork: 2.2 mcy (1.2 mcy cut, 1.0 mcy fill)	Yes	Yes	In the near-term (Year 2035)	Yes	Yes	Yes	• **Retained for detailed study** • Wetlands impacts: 34 ac. • Stream crossings: 3 (2 with anadromous fish) • Floodplain impacts: 15 ac. • Notable wildlife habitat: 11.0 • Undeveloped habitat: 784 ac. • Prime farmland: 20.0 ac. • Residential displacements: 8

Notes: Direct impacts are based on the conceptual design of a two-lane highway prior to identification of alternatives retained for detailed study and further avoidance and minimization of impacts.
Undeveloped habitat impacts estimated using habitat blocks with utilities as fragmenting features.

The real history of why 2B was removed (twice in 2002) from further consideration – should be 5 red NOs:

Alternative 2B: "This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Alternative 2B would use approximately 5 miles of Route 9. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards. Additionally, this alternative would result in: • substantially greater proximity impacts (residences within 500 feet of the proposed roadway) in comparison to Alternative 3EIK-2 (200 residences v. 12 residences)".

(I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 Page ii and iii):

DEIS Comment/Question # 2.

Submitted by: Larry Adams, a Brewer resident, on April 13, 2012

Conditions of Maine Infrastructure:

"Twenty-seven percent of Maine's major roads are in poor or mediocre condition. Driving on roads in need of repair costs Maine motorists $246 million a year in extra vehicle repairs and operating costs – $245 per motorist. Thirty-two percent of Maine's bridges are structurally deficient or functionally obsolete. Roadway conditions are a significant factor in approximately one-third of traffic fatalities. There were 159 traffic fatalities in 2009 in Maine. A total of 854 people died on Maine's highways from 2005 through 2009." (KEY FACTS ABOUT MAINE'S SURFACE TRANSPORTATION SYSTEM AND FEDERAL FUNDING, September 2011, TRIP a national transportation research group)

- **With the current poor condition of the State of Maine infrastructure, as stated above, why would the MaineDOT/FHWA/USACOE spend up to $2.5 million dollars into the twelve year of this route 9 connector study to propose a $90+ million dollar alternative that only meets 20% of the original Purposes and Needs that the Study group was tasked to deliver as far back as the year 2000?**

- **Couldn't that or better yet shouldn't that money have been better spent repairing existing roads and bridges instead of proposing five more new bridges and an additional 6.1 miles of new roadway?**

DEIS Comment/Question # 3.

Submitted by: Larry Adams, a Brewer resident, on April 13, 2012

Property Devaluation and loss in Tax Revenues in Brewer:

- **There is an approximate $2.3 million dollars in appraised value of properties in Brewer alone that will be directly impacted by the right-of-way or by the roadway of alternative 2B-2.**

- **Annual tax revenue would decrease by approximately $37,000 in Brewer.**

"The build alternatives would result in a reduction in tax revenue in Brewer, Holden, and Eddington because the land converted to transportation use would no longer be tax-eligible. Annual tax revenue would decrease by approximately $37,000 in Brewer. The No-Build Alternative would not impact local tax revenues." (DEIS page 140)

- **That $37,000 loss in revenue does not include the homes and properties the MDOT does not see as direct or indirectly impacted but remain in close proximity to the proposed roadway.**

The MaineDOT intends to only purchase the minimum amount of land to establish the right-of-way footprint of the proposed 2B-2 alternative. This will leave several larger properties directly impacted with greatly diminished property values. Not included in any data or any chart (remember proximity displacements do not really exist) are those unlucky residences or property owners along Eastern Avenue and Woodridge Road that are as close as 50' to 100' of the right-of-way of alternative 2B-2 that will see their property values plummet and only when the property is reassessed by the City of Brewer Tax Office will the true loss in real estate values be known. A high percentage of homeowners in the Woodridge Road and Eastern Avenue area are either already retired or at retirement age and their homes and properties are an integral part of their retirement portfolio. These older homeowners will forever suffer a loss in real estate values with no instrument to recoup their losses and this comes at a time when real estate values are already suppressed. These homeowners are not considered directly or even indirectly impacted by this connector; a frog or a salamander is a direct impact and many find that fact outrageous.

This question relates to the revenue losses in the City of Brewer; The Towns of Eddington and Holden are similarly impacted with an annual loss in tax revenues of $17,800 and $7,200 respectively with the 2B-2 alternative. The neighborhoods of Woodridge Rd/Eastern Avenue are specifically mentioned, but this same taxpayer issue is true for the complete length of the 2B-2 route including the 4.5 mile section of route 9 that was needed to make 2B-2 appear viable.

- **How does the MaineDOT intend to make up for the loss in tax revenues for the City of Brewer in the properties impacted by any of the three remaining alternatives or the loss in real estate value to the owners of the larger parcels of land directly impacted by this connector?**

- **What does the MaineDOT intend to tell these retired citizens that are not considered directly or indirectly impacted when their property values go down by tens of thousands of dollars instantly upon the selection of the connector?**

- **These same senior citizens will fund the connector with their state and federal tax dollars, get no benefit at all from the connector and suffer a direct loss in their pocketbook with a diminished quality of life due to the connector.**

DEIS Comment/Question # 4.

Submitted by: Larry Adams, a Brewer resident, on April 13, 2012

Cost of alternatives in this Study:

"The estimated cost of 2B-2 construction is $90 million dollars."(October 2011 Interagency Meeting Minutes) "MDOT estimates the project will cost $70 million to $101 million."(BDN 1/10/2012) At $90 million dollars, alternative 2B-2 at 6.1 miles in length will cost $14.75 million dollars per mile. "Ray responded that the DOT has seen recent average construction costs of $7-8 million per mile." "For a 10 to 11-mile connector as studied here, construction would likely cost $70 to $80 million." (PAC Meeting 11/19/2008) "Route 3EIK-2… Developed over the past few weeks, the new route features 10.6 miles of new roadway at an estimated construction cost of $40 million." (BDN article 5/01/2003) "At the national level, we saw a major spike in the price of asphalt as a result of the 2005 hurricane season and its impacts on the petroleum industry, which certainly revealed our national vulnerabilities related to energy supplies. Consequently, MaineDOT reported in 2010 that its construction costs had increased by a troubling 60 percent over the previous five years, further contributing to the challenge of maintaining an aging system." (Connecting the D.O.T.S September 2011) The 3EIK-2 alternative would have cost $40 million dollars in 2003, a ten to eleven mile connector would have cost $70 to $80 million dollars in 2008 and now in 2012 the 2B-2 alternative, which is 4.5 miles less in overall length than the 3EIK-2 route will cost an estimated $70 to $101 million or is it $90 million dollars? The cost of asphalt is directly tied to the price of crude oil and current events, it will only go up in the future and even now the price of gas is $4.00+/gallon.

"The estimated construction costs of alternatives include the costs of preliminary engineering, construction engineering, utility relocation, acquisition of property for right-of-way, and mitigating environmental impacts. The costs of the build alternatives would range between approximately $61 million and $81 million (in 2011 dollars)". (DEIS pages s15/s18) Since 2B-2 has the lowest construction costs of the three remaining alternatives, the cost estimate to construct 2B-2, per the DEIS, is $61 million dollars.

- **Why the large disparity from $61 million dollars in March of 2012 from $90 million dollars in October of 2011 or more as reported in the BDN in January 2012?**
- **What will be the cost in real 2014 dollars when this 2B-2 alternative is slated to go to construction if selected?**
- **Is this $90 million dollar estimate from October of 2011 even realistic or will this end up costing more like $120 million dollars or more if 2B-2 goes to construction two or three years from now?**
- **At what point will the MaineDOT/FHWA realize that this project will be too costly for the limited benefits that it delivers?**

DEIS Comment/Question # 5. Submitted by: Larry Adams, a Brewer resident, on April 13, 2012

Where's the Funding?

The Federal government and the State of Maine are broke – there is no magic funding source or money currently set aside to fund the construction of this connector or at least that is what we are led to believe. There will never be stimulus funds or pork-barrel-funded projects ever again, they are now considered politically toxic. No matter how this connector gets funded, the private tax paying citizens of Maine, and their families, will bear the cost of that funding through their state and federal tax burden. Not a day goes by when there isn't a news story about the shape of our budget in the state. We can't pay our current bills, we can't pay the pensions of our teachers and state workers, and we can't afford MaineCare or the DHHS.

- **"Twenty-seven percent of Maine's major roads are in poor or mediocre condition and thirty-two percent of Maine's bridges are structurally deficient or functionally obsolete.(TRIP Research Group)" We can't afford to maintain the bridges and roadways we have, why add another $90 million dollars of 5 new bridges and 6.1 miles of roadway to the equation?**

Even if this estimate of $90 million dollars is correct, and that seems doubtful with a construction date in 2014 and the rising cost of crude oil directly affecting asphalt costs, the State of Maine will have to "front" $18 million dollars. "Kat Fuller, Chief of Planning for MaineDOT, commented on the state of this study and the state of funding at the DOT in general. Kat began by saying that, as a result of limited funding, the DOT needs to determine the next best step. This next step will be decided in the coming months. The legislature has asked the DOT for a prioritized list and status report of all studies. Kat stated that the DOT has insufficient funding to maintain its current highway system and therefore insufficient funding to expand (or add to) the current highway system. The DOT was asked to cut $39 million from its 2010-2011 budget with specific direction not to cut certain areas (e.g., urban/rural programs, and debt service)." "Dave Link of Holden and Eddington asked about the cost of construction in relation to the DOT's budget. Ray responded that the DOT has seen recent average construction costs of $7-8 million per mile. For a 10 to 11-mile connector as studied here, construction would likely cost $70 to $80 million. This amount is one-half of DOT's budget for one year. Kat added that the DOT is one-half billion short on funds needed to meet its current needs." (PAC Meeting November 19, 2008)

The Federal government will have to fund $72 million dollars, again this could easily be a lot more, but this connector will be placed alongside all other projects from the fifty states and prioritized for funding against each other – again no magic pot of money and no chance of guaranteed funding.

- **Why would the MaineDOT, the FHWA and the USACOE trudge ahead with this connector expending more of our limited tax dollars over the past three years that could have been used to fix the roads and bridges we apparently cannot afford to fix and to propose construction of a connector that doesn't meet the criteria that the MaineDOT set back in 2000 at the start of this study?**

- **Why didn't the MaineDOT, the FHWA and the USACOE move for a No-Build as the "preferred" route back in September of 2010 when the criteria was so drastically altered? Explain why alternative 2B-2 will cost $14.75 million per mile. When will it become apparent to the MaineDOT, the FHWA and the USACOE that they have far exceeded the cost versus benefits from this proposed connector?**

DEIS Comment/Question #6. Submitted by: Larry Adams, a Brewer resident, on April 13, 2012. Was it appropriate for the MaineDOT Project Manager to withhold information from an impacted private citizen when news from September and December 2010 already had changed the study outcome? Where is the honesty and transparency? Can you gentleman not grasp why I have exhibited no trust in the Study Group?

Larry Adams

From: "Lindsey, Judy" <Judy.Lindsey@maine.gov>
To: "Larry Adams" <bgradams@roadrunner.com>
Sent: Wednesday, March 02, 2011 3:54 PM
Subject: RE: Study Update - I-395/Route 9

Larry,

I know it has been a long year. During this time MaineDOT has been meeting with the Corps of Engineers (Corps), Environmental Protection Agency (EPA), and U.S. Fish and Wildlife Service (FWS) to identify the range of alternatives that will be fully analyzed in the Draft Environmental Impact Statement (DEIS). The intent is, if possible, reduce the number of alternatives to be analyzed in the DEIS by dismissing those that would not be permitable or other alternatives have fewer impacts but achieve similar results. This coordination will be completed by this Spring so we can prepare the DEIS for distribution for public comment.

My expectation is late Spring or Summer we will hold an Advisory Committee meeting to discuss everything that has occurred since our last meeting. Please contact me if you have any other questions on the study.

Judy Lindsey
Project Manager

Judy Lindsey

Maine Departmentof Transportation

Bureau of Transportation Systems Planning

16 State House Station

Augusta, Maine 04333-0016

(207) 624-3291

judy.lindsey@maine.gov

From: Larry Adams [mailto:bgradams@roadrunner.com]
Sent: Wednesday, March 02, 2011 12:06 PM
To: Lindsey, Judy
Subject: Study Update

Two of the proposals are in my backyard. We have not had an update in this matter in well over a year. What is the current status of this study?

Thanks, Larry Adams
17 Woodridge Rd. Brewer

3/16/2012

DEIS Comment/Question # 7.

Submitted by: Larry Adams, a Brewer resident, on April 16, 2012

MaineDOT change in philosophy?

"Mike Davies pointed out that there are 3 hurdles to completing an EA: Community support, Agency support and Coming up with a realistic alternative." (PAC Meeting #1 on 9/11/2000)

"During an informational meeting in June, DOT project manager Michael Davies said that a 1998 traffic study indicated that heavy truck traffic on Route 46 doubled between 1990 and 1998, and that overall traffic was up 60 percent. During Wednesday's meeting, Davis observed that reaching accord on the project would be critical to its viability. He pointed out that the route wouldn't be built unless it has the support of affected communities and area transportation agencies. "I am not here to force this down anyone's throat," he said." (BDN 11/16/2000)

"John Bryant asked what "advisory" means. Ray replied that local communities have a lot of influence in the selection of a preferred alternative. The community's support or opposition for a given alternative is given substantial weight in the decision-making process." (PAC Meeting minutes 8/20/2008)

- **What has changed in MaineDOT philosophy since the year 2000 to take this Study underground for the three years since 2009, without any private citizen or civic scrutiny, to reach a conclusion of selecting an alternative that is neither realistic or has community support from the City of Brewer?**

- **Is there any doubt as to the lack of community support from Brewer? The City of Brewer enacted a resolve on March 13, 2012 titled: "TO WITHDRAW SUPPORT FROM THE I-395 AND ROUTE 9 CONNECTOR PROJECT AND TO SUPPORT THE NO BUILD OPTION". This opposition is nothing new, there has always been objection from the City of Brewer on 2B-(X) throughout the history of this study. City of Brewer elected officials and residents have been denied any opportunity to "influence in the selection of a preferred alternative".**

- **Is there any doubt that there is significant public opposition since the open house on April 4th at the Brewer Auditorium? This opposition is not new either, there has always objection from the Brewer residents on 2B-(X) throughout the history of this study. Check your files and you will see many emails from my neighborhood.**

- **Is 2B-2 even a realistic alternative? 2B-2 did not meet four out of five of the Purposes and Needs of the Study in April of 2009 and now it does? Really?? "Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46." Per the words of the MDOT/FHWA/ACOE, alternative 2B-2 will negatively and severely impact the Town of Eddington. Really?? (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission dated October 2003 (Page 5 of Summary)**

- **Will this connector go to final selection knowing that the Community of Brewer does not support it? How does that compare to the statements of prior project managers in November of 2000 and August of 2008?**

- **The lack of transparency for the last three years has only magnified the problem; apologizing again and again for not keeping us informed doesn't address the real issue—your preferred alternative does not meet the original study purposes and needs—you all know that is true. Will the legacy of your Study Group be forever labeled with these words: "would negatively affect people" and "would severely impact local communities"?**

DEIS Comment/Question # 8.

Submitted by: Larry Adams, a Brewer resident, on April 16, 2012

Has the MaineDOT/FHWA process been fair:

- **There were many times within the long decade+ of this study where the management of this study, with the MaineDOT and the FHWA as co-leads, has been, in my opinion, very poor or lacking at best.**
- **The study was often allowed to be hijacked and stalled by some within the study area to try to keep alternatives out of their town. The public meetings, hearings and PAC meetings were often confrontational, and that was as much in the audience as it was to the Study Group. It was intimidating to sit in the audience within a process that was obviously not controllable. The rules of the PAC meetings were no-public interaction until the public comment section at the end, an example of this was at an earlier meeting where constant interruptions of comments and questions actually shut down the PAC and the moderator allowed it.**
- **MaineDOT/FHWA allowed private meetings to occur and even allowed direct contact with other agencies and one of the communities involved in the study when the MaineDOT/FHWA continually said that they wouldn't.**
- **The MaineDOT project manager intentionally kept information from a Brewer citizen in March of 2011. That email was provided with question #6. Why is that important? I would have rather had this conversation a year ago, not a year later after all the work has been done leading to the publication of the DEIS.**
- **The MaineDOT/FHWA appeared to have allowed the study to be steered in the direction of alternative 2B-2 by the ACOE, not a lead agency in this study. The MDOT/FHWA was not interested in alternative 2B-2 at all as is quoted in several BDN articles from 2004. Why was the ACOE still promoting alternative 2B-2?**
- **This study was taken underground from 2003 to 2008 and again in April 2009 to the present time.**
- **Who could have predicted that the preferred route of some seven years, alternative 3EIK-2, would be removed from further consideration and replaced with the 2B-2 alternative that previously did not meet four of the five purpose and needs of the study? If it wasn't for a pure accident, the citizens of Brewer and Eddington would have only found out when the DEIS was completed and sent out for comments.**
- **The MaineDOT intended to do a "media blitz" to promote the selection of 2B-2 and reactivate the PAC to help them in their cause. (12/2011 Interagency Meeting Minutes) That did not happened and in fact the MaineDOT, because of their their lack of transparency since April of 2009, submitted a written apology and this statement: "In the coming weeks, MaineDOT officials will refocus on the public process in which residents will have ongoing opportunities to provide feedback including review of the draft environmental impact statement and public hearing(s) as needed. We look forward to hearing from all interested parties," the statement concluded. (BDN 1/06/2012)**
- **Because several property owners and local government officials started vigorously complaining to local, state and federal government officials, the MaineDOT decided first to not provide separate meetings with our elected officials as promised and they never did activate the PAC.**
- **The MaineDOT only started providing new information, much needed to figure out how badly we were to be damaged, because of our work directly with our legislative delegation. The website was finally updated around February 17th to reflect some of the new engineering changes. The only update to that date was the change in the name of the project manager and the addition of the current map – no new engineering data was added from April 2009 until February 2012.**
- **The MaineDOT/FHWA/USACOE did provide a much needed open house forum at Brewer on April 4th but even then none of the state and federal government officials appeared to show any flexibility to their selection other than pushing ahead for 2B-2. No-build was always supposed to be a valid alternative and no one seems to talk about that anymore. In April of 2009, 2B-2 was only 20% better than the no-build alternative as can be seen on the Purpose and Needs Matrix.**

DEIS Comment/Question # 9.

Submitted by: Larry Adams, a Brewer resident, on April 16, 2012

ORIGINAL SYSTEM LINKAGE NEED of this STUDY:

- **What happened in this study, after almost a decade of work, to decide that you no longer needed to comply with the original System Linkage Need as identified in the attached February 2002 MDOT document and the attached summary page 5 of a MaineDOT/FHWA/ACOE October 2003 document? A decrease in traffic numbers alone, as we are now being told, doesn't seem to be a logically reason to remove the bypass around the village of East Eddington and do away with the original System Linkage Need. If that is really the case, couldn't that same decision have been made ten years ago? Was it really necessary to run this study out now 12 years and to expend $1.7 to $2.5 million dollars in doing so? Are you now saying that the Study Group used flawed data at the start of the study when they projected traffic numbers and set up the original parameter for System Linkage?**

- **System Linkage appears to be directly linked to the traffic capacity of route 9. How can route 9 now have your blessings out to 2035 when that was not the case in earlier traffic studies?**

- **The System Linkage Need parameter was deemed necessary to bypass the village of East Eddington and the intersection of route 9/route 46 thus effectively bypassing all transitional traffic on route 9 in Eddington from the Eddington/Clifton town border directly to I-395.**

- **"The speed of traffic through the east Eddington village has always been a concern. As a built up area, it poses a challenge to making connections to Route 9 west of the east Eddington Village." (PAC Meeting Minutes 4/15/2009)**

- **These two attached System Linkage Need statements also provide a glimpse of the negative aspects to people and their communities of not meeting that specific need.**

- **Why are there are no alternatives remaining in consideration that meet the original system linkage need? None of the three remaining alternatives meet more than 20% of the original Purposes and Needs. Am I the only one that finds that fact odd?**

I-395/Route 9 Transportation Study

Rationale for Alternatives Retained for Further Consideration

February 2002

"The purpose of this project is to 1) construct a section of Maine's National Highway System from I-395 in Brewer to Route 9, consistent with current AASHTO policy on design; 2) improve regional system linkage; 3) improve safety on Route 46 and Route 1A; and 4) improve the current and future flow of traffic and shipment of goods to the interstate system.

The needs considered in this study are based upon the roadway geometry in the area, combined with an increase in commercial, local, and regional traffic, that has resulted in:

- **Poor System Linkage**
- **Safety Hazards**
- **Traffic Congestion**

"Key consideration to address system linkage need:

- **To improve regional system linkage, an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46. Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not provide a substantial improvement in regional mobility and connectivity and would negatively affect local access. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46. Alternatives providing a direct connection between I-395 and Route 9 east of Route 46 will provide improved regional connections between the Canadian Maritime Provinces and the Bangor region and reduce traffic on other roadways. Such alternatives meet the intent of the Governor's East-West Highway Initiative."**

AND

"Prior to the eleventh PAC meeting on February 20, 2002, the system linkage need was examined in greater detail to further aid in reducing the number of preliminary alternatives. To meet the need of improved regional system linkage while minimizing impacts to people, it was determined that an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46. Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46. Alternatives providing a direct connection between I-395 and Route 9 east of Route 46 will provide improved regional connections between the Canadian Maritime Provinces and the Bangor region and reduce traffic on other roadways. Such alternatives meet the intent of the East-West Highway Initiative." (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission dated October 2003 (Page 5 of Summary)

DEIS Comment/Question # 10.

Submitted by: Larry Adams, a Brewer resident, on April 16, 2012

ACOE involvement throughout the study:

"The corps announced in April that it was reviewing two alternatives - 2B-2 and 3EIK-2 - and is currently accepting public comments. The corps is considering 2B-2 because Bryant and resident Jacqueline Smallwood presented it to them last fall, said Jay Clement, the Maine representative for the corps. He said it was the public's interest in 2B-2 that prompted the corps to consider it." (BDN article dated August 23, 2004)

"Maine Department of Transportation officials have made it clear that their top choice is the 10.6-mile 3EIK-2 and are considering only it and a no-build option. The Federal Highway Administration also endorsed 3EIK-2. DOT compared the two routes in October 2003 and chose to stick with 3EIK-2, which affects the least amount of wetlands and residents, according to the study". (BDN article July 29, 2004)

The ACOE was not a lead agency but the MaineDOT, tasked as a co-lead with the FHWA to manage this study, appeared to have allowed the ACOE to drive this study in the direction of 2B-2 from the inception of alternative 2B-2 (the ACOE appears to have accepted this proposal directly from the Town of Holden circumventing the process). The ACOE played an active role in the removal of the only four routes that had previously met all the Purpose and Needs of the Study, including the 3EIK-2 preferred route for some six to seven years, keeping three routes in consideration two of which previously only met 20% of the Purposes and Needs of the Study leading to the selection of 2B-2 as the preferred route (5B2B-2 didn't exist until the end of 2010 and 5A2E3K-1 was renamed 5A2B-2).

- **"Ray (Faucher) added that the Corps specifically requested that at least one alternative that connects to Route 9 west of Route 46 be retained in the DEIS." (PAC Meeting Minutes 4/15/2009) That route was alternative 2B-2. Explain why the ACOE requested a western connection point that did not meet the original system linkage need of the study and why that request was never questioned by anyone else in the Study Group?**

- **Why did the MaineDOT allow the ACOE to apparently accept another alternative (2B-2) in September of 2003, the second time that this Corporate Boundary Route alternative had been proposed, even before the MDOT/FHWA/ACOE document titled "Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003" was sent to print? The outcome of that 2003 document sent no-build and alternative 3EIK-2 to detailed studies following an Interagency Meeting#7 of May 13, 2003. Didn't the ACOE concur with decisions at that meeting? Why did the ACOE feel it necessary to accept another route after those decisions were made and why did the MaineDOT and the FHWA, who both did not support the inclusion of 2B-2 at that time, allow it?**

- **The Purpose and Needs Matrix chart dated 4/15/2009 clearly indicates that alternative 2B-2 did not meet the Study Purpose, it did not meet the ACOE Purpose, it did not meet the System Linkage need and it did not meet the Traffic Congestion need, yet it was carried forward for further consideration. If it didn't meet the ACOE Purpose in April of 2009, what has changed with the 2B-2 alternative that the ACOE now finds that it meets ACOE purpose?**

- **As Project Managers of the Study, why did the MaineDOT/FHWA allow the ACOE to keep the 2B-2 alternative in consideration when 2B-2 only met 20% of the Purposes and Needs of the Study? I asked Bill Plumpton years ago why 2B was always kept in consideration, when it never did meet the original purpose and needs, and was told it was necessary to make the process look fair – where's the fairness now?**

DEIS Comment/Question # 11. Submitted by: Larry Adams, a Brewer resident, on April 16, 2012

Is the MaineDOT/FHWA/USACOE attempting to change history? Did 2B-2 and the future 5A2B-2 meet the Purpose and Needs in April of 2009?

How/Why/When did alternative 2B-2 and the future 5A2B-2 become Practicable and meet the Purposes and Needs of the Study?

Family 2 – Northern Alternatives

Alternatives	Description	Meets Purpose: Study Purpose	Meets Purpose: USACE Purpose	Meets Needs: System Linkage	Meets Needs: Safety Concerns	Meets Needs: Traffic Congestion	Practicable	Results
Alternative 2A	• Satisfies design criteria • Length: 4.6 mi. of new alignment, 4.5 mi. of Route 9 without additional improvement • Bridge length: 5,200 ft. • Earthwork: 1.0 mcy (0.2 mcy cut, 0.8 mcy fill)	Yes	Yes	In the near-term (Year 2035)	Yes	Yes	Yes	• **Dismissed - other alternatives less environmentally damaging** • Wetlands impacts: 26 ac. • Stream crossings: 3 (2 with anadromous fish) • Floodplain impacts: 11 ac. • Notable wildlife habitat: 4.4 ac. • Undeveloped habitat: 248 ac. • Prime farmland: 30.0 ac. • Residential displacements: 8
Alternative 2B	• Satisfies design criteria • Length: 5.8 mi. of new alignment, 4.2 mi. of Route 9 without additional improvement • Bridge length: 4,354 ft. • Earthwork: 1.8 mcy (0.9 mcy cut, 0.9 mcy fill)	Yes	Yes	In the near-term (Year 2035)	Yes	Yes	Yes	• **Dismissed - other alternatives less environmentally damaging** • Wetlands impacts: 28 ac. • Stream crossings: 6 (2 with anadromous fish) • Floodplain impacts: 11 ac. • Notable wildlife habitat: 4.4 ac. • Undeveloped habitat: 647 ac. • Prime farmland: 23.3 ac. • Residential displacements: 2
Alternative 2B-1	• Satisfies design criteria • Length: 10.2 mi. of new alignment • Bridge length: 2,232 ft. • Earthwork: 3.5 mcy (1.7 mcy cut, 1.8 mcy fill)	Yes	Yes	Yes	Yes	Yes	Yes	• **Dismissed - other alternatives less environmentally damaging** • Wetlands impacts: 35 ac. • Stream crossings: 5 (2 with anadromous fish) • Floodplain impacts: 11 ac. • Notable wildlife habitat: 0 • Undeveloped habitat: 1,362 ac. • Prime farmland: 37.0 ac. • Residential displacements: 9
Alternative 2B-2	• Satisfies design criteria • Length: 6.1 mi. of new alignment, 4.2 mi. of Route 9 without additional improvements • Bridge length: 2,232 ft. • Earthwork: 2.2 mcy (1.2 mcy cut, 1.0 mcy fill)	Yes	Yes	In the near-term (Year 2035)	Yes	Yes	Yes	• **Retained for detailed study** • Wetlands impacts: 34 ac. • Stream crossings: 3 (2 with anadromous fish) • Floodplain impacts: 15 ac. • Notable wildlife habitat: 11.0 • Undeveloped habitat: 784 ac. • Prime farmland: 20.0 ac. • Residential displacements: 8

Notes: Direct impacts are based on the conceptual design of a two-lane highway prior to identification of alternatives retained for detailed study and further avoidance and minimization of impacts.
Undeveloped habitat impacts estimated using habitat blocks with utilities as fragmenting features.

Purpose and Needs Matrix

Alternatives	Meets Purpose: Study Purpose	Meets Purpose: USACE Purpose	Meets Needs: System Linkage	Meets Needs: Safety Concerns	Meets Needs: Traffic Congestion
No-Build	No	No	No	No	No
Alternative 1-Upgrade	No	No	No	No	No
2B-2	No	No	No	Yes	No
3A-3EIK-1	Yes	Yes	Yes	Yes	Yes
3EIK-2	Yes	Yes	Yes	Yes	Yes
5A2E3K	Yes	Yes	Yes	Yes	Yes
5A2E3K-1	No	No	No	Yes	No
5A2E3K-2	Yes	Yes	Yes	Yes	Yes
5B2E3K-1	Yes	Yes	Yes	Yes	Yes

- **Isn't it more than a little <u>dishonest</u> not to mention in the DEIS that - yes in April of 2009 - alternatives 2B-2 and the future 5A2B-2 (not to mention 5B2B-2 that was not even in play at the time) only met 20% of the original Study Purpose and Needs and were not Practicable.**

"Alternatives that do not provide a limited access connection to Route 9 east of Route 46 <u>would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area.</u> Alternatives that would connect to Route 9 west of Route 46 <u>would severely impact local communities along Route 9 between proposed alternative connection points and Route 46</u>." (Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 - page 5 of Summary)

DEIS Comment/Question # 12.

Submitted by: Larry Adams, a Brewer resident, on April 16, 2012

Appendix "D" drawing #2:

Although this drawing is indexed for noise measurement locations, the superimposed property lines on my Woodridge Road neighborhood are shifted southerly by approximately 50 feet or so placing boundary lines within buildings – very sloppy engineering. The same sloppiness can be seen in some of the August 2011 Preliminary Engineering Plans. It is most apparent where the corporate boundaries exist. Not what one would expect at the end of a $2.5 million dollar study.

DEIS Comment/Question # 13.

Submitted by: Larry Adams, a Brewer resident, on April 17, 2012

Proximity displacements:

"In summarizing the overall difference between this matrix and the matrix used at the last PAC meeting, Bill said a new column has been added to the matrix – "Number of Buildings in Proximity"; in proximity was defined as within 500 feet of edge of the roadway (for a total width of approximately 1200 feet wide). The purpose of adding this column was to measure the impact of each alternative along the entire length of the alternative or affected area. This was done in response to the suggestions made at the last meeting that MDOT should not place an alternative too close to the majority of people. This also helps to illustrate the impact of Alternative 2B along the section of Route 9. The impact to neighbors in proximity are greater with Alternative 2B than the other alternatives." (PAC Meeting #13 on 7/24/2002)

"The total number of buildings within 500 feet of the planned roadway is another factor, with 2B-2 having 190 displacements and 3EIK-2 only having 24."(BDN article dated 7/29, 2004)

"Bill continued. Proximity was part of the value system defined at the outset of the study. We developed metrics of 500 and 1000-foot buffers to tabulate the number of homes affected by each alternative. These metrics were used for siting the alternatives but aren't used as a part of the impacts assessment, since there is no regulation to enforce it." (PAC Meeting 4/15/2009)

- **Even though there is no regulation to define proximity displacements – these displacements are real and should have been considered in the overall impacts from alternative 2B-2. There are now 8 residential displacements per the DEIS document for the 2B-2 alternative. How can the MaineDOT, the FHWA, the ACOE and the EPA completely disregard the severe impacts to the most real part of the environment—people?**

- **Why have these agencies put frogs and salamanders above the human component of the environment: real live people within 500' of this proposed connector or to the real live people that currently live in the 8 homes to be destroyed?**

- **Shame on these State and Federal Agencies for not having a regulation in place to save the human environment. Where is the balance between the environment and the human species?**

- **Why was proximity displacement even part of this study if in the end it was going to be disregarded? If you cannot see the lack of fairness in using a measuring device that in the end when it should be one of the most important aspects of the study—it is totally meaningless, then there's nothing I can say to sway your thinking.**

- **Proximity displacement was needed to make routes like 2B and now its twin 2B-2 appear to be as viable as the other routes by using route 9 as the overall length of the alternative—you cannot separate route 9 from 2B-2. Alternative 2B had 200 proximity displacements and 2B-2 has 190 proximity displacements; is that data included in the DEIS? Why not? Doesn't it, in fact, show the real impact to real live people and the fact that these three remaining routes impact real live people MORE THAT ANY OF THE OTHER 70+ROUTES?**

- **How can someone abutting a right-of-way not be considered as direct or even indirectly impacted?**

- **How can my neighbors and I recoup the devaluation in our properties that has already occurred since 2B-2 was named the "preferred alternative" and will plummet if 2B-2 goes to construction?**

DEIS Comment/Question # 14.

Submitted by: Larry Adams, a Brewer resident, on April 17, 2012

Incorrect answer from the MDOT on Proximity Displacements:

Question # 31 from the Legislative Delegation to the MDOT:

31. Have you taken into account the impact the alternatives would have on residences within 500 ft. of the proposed roadway for the alternative routes? Is there a set a criteria that are considered when the route would affect residences and, if so, what are those criteria and how are they applied?
Yes, indirect impacts are being evaluated up to 3,300 feet (according to values for determining indirect impacts by the USACE and the Maine Audubon Society) of the proposed alternatives.

Potential impacts – both beneficial and adverse – were identified and, where possible, quantified through studies of the natural, social, and economic environments. Potential impacts include the direct impacts, indirect or secondary impacts, and cumulative impacts of the No-Build Alternative and build

Page 8

1/17/2012

alternatives. Direct impacts are the immediate effects on the social, economic, and physical environment caused by the construction and operation of a highway. These impacts are usually experienced within the right-of-way or in the immediate vicinity of the highway or another element of the proposed action. Indirect (or Secondary) Impacts are the impacts that are caused by the project and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. Cumulative Impacts are the impacts on the environment that result from the incremental impact of a project when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

- **The correct answer can be found in the last PAC Meeting minutes: "Bill continued. Proximity was part of the value system defined at the outset of the study. We developed metrics of 500 and 1000-foot buffers to tabulate the number of homes affected by each alternative. These metrics were used for siting the alternatives but aren't used as a part of the impacts assessment, since there is no regulation to enforce it."**
  (PAC Meeting 4/15/2009)

- **Why would the MaineDOT provide this eco-speak diatribe as an answer to the office representative of a United States Senator? Nowhere in the MaineDOT answer is there a single mention of the impact to residences as the question was phrased.**

- **Is there any wonder why we are frustrated when we get these kinds of answers to our questions?**

- **If I could find the answer on the MaineDOT Study website, why couldn't the person answering this question either do the same if they didn't know the answer or answer the question honestly if they knew the answer was basically—NO?**

DEIS Comment/Question # 15.

Submitted by: Larry Adams, a Brewer resident, on April 17, 2012

EIS versus the human environment:

"The EIS shall provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment." (40 CFR Part 1502.1). (MaineDOT Study website)

- **There is absolutely no mention of direct or indirect impacts to the human environment, unless you consider the one column for residential displacements, in any of the current impact charts or text within the DEIS.**
- **How does this current Study relate to the above statement?**
- **How is the quality of the human environment being enhanced when 8 homes will be destroyed and hundreds of acres of private land, wetlands and wildlife habitat acreage will be lost or damaged forever?**

DEIS Comment/Question # 15a.

Submitted by: Larry Adams, a Brewer resident, on April 17, 2012

The DEIS document:

"Bill Plumpton explained that a reasonable range of alternatives is needed in the DEIS. The purpose of the DEIS is to have a thorough conversation about the range of alternatives and their potential impacts. With nine alternatives, a thorough conversation is really not feasible; we need to narrow the number of alternatives to have a good discussion of the alternatives and their impacts. Ray added that the Corps specifically requested that at least one alternative that connects to Route 9 west of Route 46 be retained in the DEIS." (PAC Meeting Minutes 4/15/2009)

- **No one questioned why the ACOE had made that request for an alternative that would not meet the system linkage need. Why did the ACOE require an alternative to be kept in consideration that did not meet four out of the five Purposes and Needs of the Study on 4/15/2009?**
- **If it was so important to have at least one alternative that connected on route 9 west of route 46, then why wasn't it just as important to have at least one alternative that had a route 9 connection point east of route 46 in the DEIS? There are no alternatives remaining in consideration that meet the original Purpose and Needs of this study.**
- **How can any of the three routes remaining in consideration fairly compare to each other when 5A2B-2 is mostly part of 2B-2 and alternative 5B2B-2 is a new route that was not even considered in 4/15/2009?**

13-1

DEIS Comment/Question # 16. Submitted by: Larry Adams, a Brewer resident, on April 17, 2012

Per the original 2/20/2002 System Linkage Need statement, alternatives 2B-2, 5A2B-2 and 5B2B-2:

1.) Do not meet the purposes and needs of this study as originally tasked.

2.) Do not provide a limited-access connection between I-395 and Route 9 EAST of Route 46 as tasked.

3.) Will not minimize impacts to people.

4.) Would not be practicable.

5.) Would not provide substantial improvement in regional mobility and connectivity.

6.) Would negatively affect people living on Route 9 in the study area.

7.) Would severely impact local communities along Route 9 between proposed alternative connection points and route 46.

8.) Will not provide improved regional connections between the Canadian Maritime Provinces and the Bangor region.

9.) Will not reduce traffic on other roadways.

10.) Will not meet the intent of the East-West Highway Initiative.

"Prior to the eleventh PAC meeting on February 20, 2002, the system linkage need was examined in greater detail to further aid in reducing the number of preliminary alternatives. To meet the need of improved regional system linkage while minimizing impacts to people, it was determined that an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46. Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46. Alternatives providing a direct connection between I-395 and Route 9 east of Route 46 will provide improved regional connections between the Canadian Maritime Provinces and the Bangor region and reduce traffic on other roadways. Such alternatives meet the intent of the East-West Highway Initiative." (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission dated October 2003)

DEIS Comment/Question # 17 Submitted by: Larry Adams, a Brewer resident, on April 18, 2012

Traffic Congestion on Route 46 an 1A:

Question from Legislative Delegation and Answer from MDOT on January 17, 2012:

32. Will a west of route 46 connection point do anything to relieve traffic concerns on route 46 and route 1A?

Yes, a connection west of Route 46 would relieve traffic by approximately 7,700 vehicles, including 1,100 trucks. The statutatory change to allow 100,000 pound trucks on the Interstate may change traffic patterns away from Route 46. Construction of any of the remaining alignments would remove truck traffic from Route 46.

"Alternative 2B: This alternative would not be practicable because it would fail to meet the system linkage need, and *would fail to adequately address the traffic congestion needs* in the study area. Alternative 2B would use approximately 5 miles of Route 9. *Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards.* I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 (Page ii and iii)

I believe that the question and the answer to question #32 relates directly to the traffic congestion need of the study. The answer to the above question seems to conflict with the reasons why 2B was removed from further consideration twice in 2002 as underlined above and conflicts with the 4/2009 Matrix of 2B-2 as can be seen with the red NO in the Traffic Congestion column.

You also say "may change traffic patterns away from route 46". Is there any data to back up that statement? **14-1**

Purpose and Needs Matrix

Alternatives	Meets Purpose		Meets Needs		
	Study Purpose	USACE Purpose	System Linkage	Safety Concerns	Traffic Congestion
No-Build	No	No	No	No	No
Alternative 1-Upgrade	No	No	No	No	No
2B-2	No	No	No	Yes	No
3A-3EIK-1	Yes	Yes	Yes	Yes	Yes
3EIK-2	Yes	Yes	Yes	Yes	Yes
5A2E3K	Yes	Yes	Yes	Yes	Yes
5A2E3K-1	No	No	No	Yes	No
5A2E3K-2	Yes	Yes	Yes	Yes	Yes
5B2E3K-1	Yes	Yes	Yes	Yes	Yes

DEIS Comment/Question # 18.

Submitted by: Larry Adams, a Brewer resident, on April 18, 2012

Limited-access on Route 9:

An informal survey was taken of access points on the 4.5 miles of route 9 that alternative 2B-2 uses on February 4, 2012. There are 124 total residential unrestricted access points (driveways) on the 4.5 miles of the existing route 9 from the proposed connection point of alternative 2B-2 to the Eddington/Clifton town line. (Included in these numbers are one daycare with dwelling and one dwelling with a Bait Shack.) There are 30 total business unrestricted access points (driveways) on the 4.5 miles of the existing route 9 from the proposed connection point of alternative 2B-2 to the Eddington/Clifton town line. (Included in these business numbers are commercial businesses, public/municipal/government structures, religious structures, one cemetery and one Hospice facility.) There are 36 total roadway unrestricted access points on the 4.5 miles of the existing route 9 from the proposed connection point of alternative 2B-2 to the Eddington/Clifton town line. (Included in the roadway numbers are city streets, private roads and access roads either public or private.) That is a total of 190 unrestricted access points to the existing 4.5 miles of route 9.

- **Has the Study Team actually driven this segment of route 9 to see how closely clustered homes and businesses are around that roadway within the community of Eddington and the village of East Eddington? How can it be considered safe and efficient traffic control to navigate 100,000# vehicles at 50 mph from the Clifton/Eddington town line, through the village of East Eddington at 35 mph and then traveling at speeds varying from 45 to 40 to 45 and back to 40 mph at the proposed 2B-2 connection point through all those 190 unrestricted access points? The multiple and varied speed limits alone, on this 4.5 mile segment of route 9, appears to go against the definition of an appropriate system linkage for this project.** **15-1**

- **How do these 190 unrestricted access points fit in with the MaineDOT/FHWA definitions of safety, traffic congestion, traffic capacity and system linkage? AND—Isn't it a fact, by utilizing this existing 4.5 mile section of route 9 to make alternative 2B-2 appear to be viable, hasn't the MaineDOT and the FHWA managed only to transfer any "truck traffic problem" from route 46 to that 4.5 mile section of route 9?** **15-2**

- **Is there really a truck traffic problem? Where is the current study? The last traffic studies were completed in 2006 and 2008. It is now 2012. Before you spend $90+ million dollars, don't you think it may be prudent to verify the current traffic count and reassess your projected traffic counts?** **15-3**

- **It doesn't pass the logic test that alternative 2B-2 will now pass the safety needs and the traffic congestion needs test of this study when prior documents say otherwise. What has changed since April of 2009 to make this western connection point and the 4.5 miles of route 9 suddenly both safe and the correct resolution to alleviate traffic congestion? "Alternative 2B: ….. would fail to adequately address the traffic congestion needs in the study area. Alternative 2B would use approximately 5 miles of Route 9. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards." (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 Page ii)**

- **Some of the residences on this 4.5 mile section of route 9 have two distinct driveways so they don't have to back out into route 9 to gain access. They know all too well the dangers of living on route 9 and redirecting traffic off route 46 with any of the three remaining alternatives will severely impact these people. "……would negatively affect people living along Route 9 in the study area. AND……would severely impact local communities along Route 9 between proposed alternative connection points and Route 46." (Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 - page 5 of Summary)**

DEIS Comment/Question # 19.

Submitted by Larry Adams, a Brewer resident, on April, 18, 2009

Where is the truck traffic data?

- **Isn't it fair to say that, especially with the recent truck weight allowance changes, Canadian truckers transitioning our state would be just as likely or even more than likely to decide to cross over at the Houlton Border Crossing and use I-95, a limited-access interstate highway with a speed limit of 75 mph for the 110 mile stretch south from Houlton to Old Town instead of crossing over at the Calais Border Crossing and using Maine Route 9, an undivided two lane State highway with an average speed limits from 35 to 55 mph?**

- **Has the MaineDOT/FHWA properly studied the Houlton entry point and how the recent weight allowance changes will affect truck traffic on I-95 from Canada to Houlton and Brewer, now that this is law and no longer a "pilot program"?**

What does the increased weight limit do for the trucking industry? It allows shippers to utilize extra cargo space in the trailer, effectively adding capacity without adding trucks.

- **Look at a map of Maine and Canada and you will see that the best route to Brewer from most of New Brunswick, all of Nova Scotia and all of Prince Edward Island is N.B. Route 2, the Trans-Canada Highway, to Houlton and then I-95 south to Brewer.**

I did a little experiment using AAA triptik directions and found my above statement to be true. Most New Brunswick, all Nova Scotia and all Prince Edward Island destinations cities from Brewer provided the same directions: north on I-95 to Houlton and east on N.B. Route 2 to Moncton, New Brunswick and then to the destination city. That is true except for the southern-most cities in New Brunswick, such as Saint John and Sussex. Those were the only major destination cities that provided directions using ME Route 9 east to N.B. Route 1.

- **Is there really a traffic issue with Canadian truckers coming and going to Brewer? Is ME Route 9 the only route they can use? That's simply not true anymore now that the weight restriction has been lifted. Canadian truckers now have a better northern alternative through Houlton to the interstate past the year 2030. Where is that traffic Study?**

16-1

Truck traffic to and from the seaport of Halifax, Nova Scotia will take the northern route through Houlton, Maine. That is the most expedient route from Canada to the USA

The changes to allow 100,000 pound vehicles on the Interstate may actually lessen the traffic on Route 9, without doing anything at all, by allowing direct access to the Interstate at Houlton.

- **Are the MaineDOT/FHWA's decisions based on fact or an assumption? Where is the traffic study to back up their statements? Since the weight restriction was lifted in November of 2011, wouldn't it be prudent to do a new complete study of truck traffic from Canada to Brewer, Maine at the Calais entry point versus the Houlton entry point? Show us real data.**

16-2

- **Since the design of the roadway for the route 9 connector was downgraded to remove the planned future upgrade to a four lane divided highway in December of 2010 because of a downturn in projected traffic numbers, isn't it fair to assume that the traffic numbers now in the DEIS may also be high? How can you base your decisions in the near-term on projected numbers?** **16-3**

- **I would ask who is best served by constructing the 2B-2 connector? It certainly won't be the 8 families that will lose their homes or the many of us now well within 100' of this alternative. It certainly isn't the City of Brewer or the Town of Eddington. It certainly won't be the wetlands and floodplains at Felts Brook, Eaton Brook, Meadow Brook and the Cummings Bog. It certainly won't be the deer herd that one of my neighbors actively feeds through the winter. It certainly won't be the lynx that we have been happy to see on occasion or the eagles that fly overhead.**

- **Wasn't it important that the MaineDOT/FHWA relieve the traffic congestion from these 100,000 pound vehicles on Route 9 and 46 in the study area? Traffic congestion was a key need to this study, one of the 5 columns on the Purposes and Needs Matrix from 4/15/2009 – that was one of the big red NOs that alternative 2B-2 had at that date. The moment that the Study Group removed the original system linkage need in September of 2010, they also negated the traffic congestion need, not turning it into an automatic YES as they now claim; <u>prior statements during the study say that using route 9 to make western connected alternatives appear viable will not satisfy the traffic congestion need</u>. If traffic congestion was such an important need from the start of the study, why has the Study Group chosen to not bypass the whole section of Route 9 by bypassing the village of East Eddington as the Study clearly stated from the start? That would have removed the truck traffic from route 46, route 1A and route 9.** **16-4**

- **I can only reach the conclusion that the logic behind some of these decisions seems flawed at best. Do we really even need a route 9 connector for these Canadian truckers transiting the state now that a northern alternative route through Houlton proves to be the better route? Where are the traffic numbers to back up these claims? If this isn't about Canadian truckers transitioning this area, then show us the numbers of local trucks causing this problem.**

- **Before you ruin this area forever, don't you think it may be appropriate to base your decisions on real up to date numbers and not projected numbers based upon 2006 and 2008 traffic data?** **16-4**

DEIS Comment/Question # 20.

Submitted by: Larry Adams, a Brewer resident, on April 18, 2012

Feasibility Study for private E/W Highway:

The privately funded and privately operated and maintained East-West toll Highway could be the state's ultimate opportunity to turn around the depressed economy of central and northern Maine. This proposal is a true regional solution to all truck traffic issues transitioning the state of Maine to and from the Canadian provinces. It will not use route 9, route 46, route 1A, I-395, I-95 or route 2. The private highway has the benefit of providing employment in the short and long term with the addition of Intermodal Facilities in Costigan and in Brownville Junction. The highway design will permit trucks to haul double and triple trailers minimizing both transportation costs and impacts to the environment. Private money will fund the construction and because the private highway will be built primarily on existing logging roads and private land owned by people supporting the new highway, it will avoid communities and will not displace private citizens from their homes and properties unlike the current I-395/Route 9 Connector Study.

- **"Construction of a new 4-lane limited access highway between Calais and Bangor would result in a substantial diversion of traffic off existing Routes 1 and 9. A new 4-lane alignment is projected to carry an AADT of 11,400 to 11,600 in 2030. Such a route would remove nearly all of the existing traffic off of Route 9, as well as cut projected future traffic on Route 1 by roughly 2,300 vehicles per day below current levels." (A SUMMARY OF THE FINDINGS OF STUDIES REGARDING A MAINE EAST-WEST HIGHWAY Prepared by Maine Department of Transportation and Maine State Planning Office September 1999 SUMMARY OF FINDINGS)**

- **"Recent discussions in the Brewer-Holden-Eddington area about the planned Interstate 395-Route 9 connector, which is designed to ease heavy traffic between the Canadian Maritimes and the federal highway system, has led to some confusion over the two east-west highway proposals, Talbot said. "One is the southerly east-west highway and one is the northerly east-west highway," the Maine DOT spokesman said. "They're not connected in studies right now and they're not connected in funding right now.""(BDN 4/10/2012)**

  - **Explain the differences in a northerly versus a southerly East West Highway. The existing E/W highway utilizing route 9 and the proposed E/W private highway both beginning in Calais and the existing route 9/46/1A/I395 segment goes to Bangor while the proposed E/W highway parallels route 9 by approximately 15 miles ending the local segment in Costigan, just north of Old Town—not hundreds of miles away as one might perceive reading the article. Only going west of the local area can the two highways be considered as northerly versus southerly. The private east west highway would do away with the need of the I395/route 9 connector due to lack of traffic on route 9 as stated in MDOT's own 1999 Study.**

  - **Explain why the feasibility study of the privately funded East-West Highway should not halt the I-395/Route 9 connector study until that feasibility study is reported out on by January 15th of 2013?**

  - **Explain how the I-395/Route 9 Connector Transportation Study can go forward without taking into account the projected loss of traffic in the route 9 corridor to and from the Canadian Provinces due to the proposed private East-West Highway.**

  - **Explain why the MaineDOT/FHWA sees no problem with spending $90+ million dollars on a connector that would have no traffic if the East/West private highway goes to construction based on this 1999 statement from a MaineDOT study: "would remove nearly all of the existing traffic off of Route 9"?**

17-1

DEIS Comment/Question # 21. Submitted by: Larry Adams, a Brewer resident, on April 19, 2012 "Following the decision to begin the preparation of the EIS, a new PAC was formed. This PAC consisted of many of the same individuals who had participated in the study to date and several others with knowledge of the area and potential issues and concerns (Appendix B). These PAC meetings were working sessions open to the public and included time for questions and answers (exhibit 4.6). Three PAC meetings were held during the preparation of the EIS (Page 194/195 of the DEIS)." The three PAC meetings that they are referring to were held on August 20, 2008, November 19, 2008 and April 15, 2009 (Page 198/exhibit 4.6 of the DEIS). According to Appendix "B", Brewer only had one PAC member for the last three PAC meetings and we know that's not true. Where are Manley DeBeck and Rick Bronson? And it turns out that Linda John was Clifton's PAC member and never Brewer's. What is Appendix "B"? It is the list of current PAC members only and nothing more. Does it really matter? Not really - but it shows a level of sloppiness that you would not expect to find in an official document near the end of a $2.5 million dollar study.

Appendix B

Public Advisory Committee Members

Name	Telephone Number	Email Address
Alan Bromley *Holden*	947-4511	*albromley@roadrunner.com*
Joan Brooks *Eddington*	843-6389	*NA*
John Bryant *Holden*	827-3700 ext. 113	*john.bryant@amforem.biz*
Rodney Buswell, Sr. *Eddington*	843-7861	*rodneysr_peaveymfg@ roadrunner.com*
John Butts *Holden*	843-5151	*john@holdenmaine.com*
Linda Johns, City Planner *Brewer*	989-7790	*ljohns@brewerme.org*
Rob Kenerson *BACTS*	942-6389	*rkenerson@emdc.org*
Rodney Lane, Lane Construction	945-0873	*RPLane@laneconstruct.com*
Charles Plummer *Eddington*	989-5258	*NA*
Roger Raymond, Bucksport Town Manager *Bucksport*	469-7368	*bucksport@acadia.net*

Page - 237

- **The PAC was advisory only – yet the MaineDOT/FHWA/USACOE place the names of these PAC members in the DEIS as if they had a vote in the final decision. All the decisions made after the last PAC meeting of 4/15/2009 were outside of public, civic and PAC scrutiny and the MaineDOT/FHWA/USACOE are doing the PAC members a great disservice to make it appear that they concur with the DEIS results—they may not.**

DEIS Comment/Question # 22.

Submitted by: Larry Adams, a Brewer resident, on April 19, 2012

PAC involvement in the Study:

"Public Advisory Committees (PACs) serve as a forum for public debate and discussion on transportation needs and solutions. The purpose of a PAC is to provide a comprehensive and orderly means of involving local interests in a transportation study. The role of the PAC is to advise the MaineDOT and the FHWA on community sentiment about a study. Preparation of the DEIS and 404 permit information: The PAC assists the study team by: Assist in the identification of issues and concerns; provide input by reviewing and supplementing the study team's inventory and impact assessment of sensitive resources, unique features, and local community and economic patterns and reviewing avoidance and minimization measures and suggesting others. The PAC input is used by the study team to: Identify and determine the extent of the most important issues to be analyzed; identify and eliminate from detailed study the issues which are not significant, narrowing the analysis and discussion of these issues; identify and fully develop the potential positive and negative impacts of the alternatives and further avoiding and minimizing impacts to the extent possible." (I-395/Route 9 Transportation Study Project Advisory Committee – a High-level Summary)

There were no PAC meetings from 4/30/2003 to 8/20/2008 and no PAC meetings have been held since 4/15/2009. The PAC has not been involved with this study since 4/15/2009 and some PAC members actually thought that the PAC was disbanded in April of 2009. The PAC should have been involved with the preparation of the DEIS.

- **Explain why the MaineDOT decided to not involve the PAC in all the major decisions made outside of public scrutiny for the five year period between April of 2003 and August of 2008 and again for close to three years from April of 2009 to the present and again in the submission of the DEIS.**

- **If <u>one of the roles of the PAC was to advise the MaineDOT and the FHWA on community sentiment</u>, wouldn't that have been helpful instead of leaving private citizens and local government officials in the dark for all those years, only to find out purely by accident that the study parameters were changed to remove all routes that previously met the purposes and needs of the study, including the preferred 3EIK-2 (RING) of some seven years, from further consideration and replace it with alternative 2B-2, a route that previously only met 20% of the purposes and needs of this study?**

- **The MaineDOT took away the voice of the private citizen and their elected local officials when the MaineDOT decided to take this study underground. Where was the <u>transparency</u> in this process?**

- **How were private citizens supposed to keep abreast of these changes when the MaineDOT didn't update their own website, with the exception of a change in Project Manager and the current map, or advise the City of Brewer of any of these important changes since April of 2009? The first update to the Study website, since April of 2009, with any real engineering data did not begin until mid-February of 2012. Refer to my question #6, submitted 4/13/2012, and you will see that I tried to get the latest news on March 2nd of 2011, via an email to the Project Manager, and was given none of the updates that she surely had, a lie of omission is nevertheless still a lie.**

DEIS Comment/Question # 23.

Submitted by Larry Adams, a Brewer resident, on April 19, 2012

Safety of proposed 2B-2/route 9 alternative:

Some are questioning the safety of this proposed roadway. Two lane undivided highways have the major fault that it lends itself to severe head-on crashes. This connector was originally designed to be first constructed as a two lane undivided highway until such time as traffic warranted the upgrade to a four lane divided highway. We have been told that the design has been downgraded, due to a decrease in projected traffic numbers, to a two lane undivided highway with no future four lane upgrade and thus no purchase of the extra right-of-way to accomplish an upgrade.

What this means is the best option to improve safety on a two lane undivided highway, other than median strips and an actual median, is the upgrade to a divided highway and that option is no longer available or is it?

My neighborhood will be impacted by living within 100' of the right-of-way if 2B-2 goes to construction and have to worry from then on that our safety concerns will come to fruition and the MDOT/FHWA will have no other option than to purchase additional right-of-way to upgrade the same highway that they both said, in 2012, was safe. So now my neighborhood could be decimated ten years from now because of decisions made today. How fair is that?

The selection of 2B-2 as your preferred alternative is exacerbated by the need of using 4.5 miles of the existing route 9 to make the alternative viable. Route 9 has its' own safety issues as you are surely aware. There are 190 separate and distinct access points and six speed limit changes over that 4.5 mile section of route 9.

- **"The speed of traffic through the east Eddington village has always been a concern. As a built up area, it poses a challenge to making connections to Route 9 west of the east Eddington Village." (PAC Meeting Minutes 4/15/2009)**
- **Alternative 2B: "…..would fail to adequately address the traffic congestion needs in the study area. Alternative 2B would use approximately 5 miles of Route 9. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards. (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 Page ii)**
- **"Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area." (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission dated October 2003 (Page 5 of Summary)**
- **"Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46." (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission dated October 2003 (Page 5 of Summary)**

"Mark Kern: Good job in general has been done. Put some energy – not sure what doing to keep the Route 9 corridor intact - so there are no traffic problems ten years down the road. Discuss and explain why something cannot be done on Route 9 to reduce the entrances. Buy right-of-way, land zoning – hoping you will be aggressive in that area and will not have the same problem show up in fifteen years. Judy Lindsey: As far as related land uses, there is not much MaineDOT can do – as zoning is a town by town issue. We cannot control land use impacts. The positive – access to US Route 1, Route 2A and Route 9 preserves any development. Zoning is up to the town - it is something we can talk

to the towns about but cannot influence it; other than require legislative action." (October 2011 Interagency Meeting Minutes)

- Seems like an EPA official, Mark Kern, had the insight to recognize that utilizing route 9 may not be the best decision and that it may lead your Study Group back to readdress traffic problems by 2021 to 2026, long before the year 2035 that route 9 has been blessed to for traffic capacity.

The same gentleman though, earlier in this same meeting, made this incredibly stupid statement: "Mark Kern: This has been a great process. When is Judy bringing the champagne?" (October 2011 Interagency Meeting Minutes)

- What an outrageous statement to make when 8 families will lose their homes, many people will partially lose their properties and 190 residential, business and civic buildings will be within 500' of the proposed connector.

- Some are also saying that this project doesn't end with the construction of 2B-2; the deficiencies of this selection will end up with more construction in the near future; it's not out of the question to end up with an extension of 2B-2 to the Eddington/Clifton town line or you can dust-off the plans for the "K" bypass around the Village of East Eddington. Where are the guarantees that you won't be back in ten years to fix what should have been appropriately engineered in 2012?

18-1

"However, future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project." (DEIS s19)

- Will safety of this connector be compromised by future development on the 4.5 mile segment of route 9 that supports the 2B-2 connector? "Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards." AND this statement doesn't address any future development issues—"would substantially increase" is an absolute—that is what a transportation expert stated will happen. How can you make believe that these statements no longer exist?

- Identify the overall benefits that are in peril by this DEIS statement.

- Isn't safety supposed to be the major concern of any roadway sponsored by the MaineDOT and the FHWA?

- There was a clear reason why the Study Group was tasked, as far back as the year 2000, to provide a connector with full system linkage and that was to bypass the village of East Eddington which has the added advantage of bypassing that same 4.5 mile section of route 9 through Eddington that 2B-2 now depends on. The study group has failed miserably by not delivering on this task while expending between $1.7 and $2.5 million dollars over now twelve years of this study and we should not have to suffer by their failure.

- This connector was also supposed to be an integral segment of the existing East West Highway; all that will be accomplished at the end of this project is a bypass of North Brewer without improving the traffic flow through the Village of East Eddington and that 4.5 mile section of route 9. Why are you balking at making significant improvements when now is the best time to accomplish that task? How can your decision be considered as improving the existing East West Highway when in fact you are not improving the traffic situation, especially through the village of East Eddington, and you may cause new additional issues. "Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."—how many times do I have to quote this? Your decision to select 2B-2 as the preferred alternative is extremely shortsighted and fails to address the real issues within the study area.

DEIS Comment/Question # 24.

Submitted by: Larry Adams, a Brewer resident, on April 19, 2012

Where's the Warranty?

"However, future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project." (DEIS page S19)

- **How can the success of this project hinge on the hope that the community of Eddington will be unable to develop its own resources?**
- **Do you really want to spend $90 to $120 million dollars (MaineDOT Interagency Meeting October 11, 2011) to construct any one of the three remaining alternatives when the overall benefits of the project cannot be guaranteed? What happened to the year 2035?**
- **How can the MaineDOT/FHWA continue to support any of the remaining three alternatives when the success of this project hangs so precipitously according to this one statement in the DEIS?**
- **Remember—the deficiencies of these three remaining alternatives are because the Study Group could not reach consensus on selecting an alternative that complied with the original System Linkage Need as tasked for most of the previous decade of the study.**
- **Alternative 2B-2 can stifle future business opportunities in Eddington, it will take away 130 parking spaces (20%) at the Eastern Maine Medical Center's CancerCare of Maine facility in Brewer and it squelches future development plans that the City of Brewer had for a hotel complex/conference center between CancerCare and I-395.**

19-1

I thought Maine was open for business?

DEIS Comment/Question # 25.

Submitted by: Larry Adams, a Brewer resident, on April 23, 2012

Downgraded Design:

"Four alternatives, including the No-Build Alternative, were retained for further consideration and analyzed in detail (exhibit 2.8). The build alternatives would be controlled-access highways and were conceptually designed using the MaineDOT design criteria for freeways (exhibit 2.9). Two lanes would be constructed and used for two-way travel within an appropriate 200-foot-wide right-of-way (exhibit 2.10)." (DEIS page 42)

- This downgraded connector design, occurring sometime in 2011 and first addressed at the October 2011 Interagency Meeting, does not include a future upgrade to a four lane divided highway as was the plan for the previous decade of the study. The original right-of-way was supposed to be wide enough for the future development. Now the right-of-way will be an average of 200'.

- ONLY three alternatives, 2B-2, 5A2B-2 and 5B2B-2, of the original 70+ alternatives studied over the last decade remain in consideration with this new "downgraded design". All other routes were dismissed in September of 2010.

- How would the 3EIK-2 route have fared if the "footprint" was only 200' in width and wouldn't the 4B alternative suddenly look a whole lot better? **20-1**

- Could the 3EIK-2 route have been successfully moved around the vernal pools if it was only a 200' wide footprint? How about 5A2E3K? **20-2**

- The biggest reason 4B was dismissed was because of "extensive earthwork". Wouldn't a 200' footprint have fared better with that route? How about any of the route 1 upgrades? **20-3**

- A redesign at such a late date in the study—eleven years—appears to be just another unfair comparison placed upon the three remaining alternatives in consideration, none of which meet the original Purposes and Needs of the Study while not placing the same criteria to any of the four alternatives, including the 3EIK-2/preferred alternative of six or seven years, that did meet the Purposes and Needs of the Study but were removed in September of 2010.

- Which agency ordered the downgrade redesign of this connector?

- The Study Group, at a February meeting, advised our Legislative Delegation that $1.0 million dollars would be saved by not purchasing additional right-of-way properties to support a future full four lane divided highway, as was originally the plan of this study for the past decade. Based on a $90 million dollar estimate for the construction of alternative 2B-2, from that same October meeting, $1.0 million dollars is only 1.1% of total $90 million dollar expenditure. Does the MaineDOT/FHWA find it appropriate for the Study Group to remove the possibility of a future upgrade that may be needed to insure the safety of this corridor based on an initial $1 million dollar expense? When you look at the overall cost of this project, especially now that some are raising safety concerns with limiting the design to a two lane undivided highway, $1.0 million dollars does not seem like a major expense.

20-4

- Was the redesign based solely on construction costs?

- What was the basis behind redesigning this connector?

- If the redesign was necessary because of a lack of projected traffic numbers, are these numbers accurate? Weren't the last real numbers taken back in 2006 and 2008? For a project of this magnitude don't you think the traffic numbers should be validated to make sure that the downgraded design is the best action to take on this connector?

- In September 2010 significant changes were made to the original project criteria:

    - Elimination of the original System Linkage Need of an east of East Eddington connection point on Route 9 as tasked since the start of the study.

    - MDOT/FHWA "blessing" of future traffic capacity of Route 9 out to the year 2030 and then 2035. Why didn't previous traffic reports indicate this finding?

    - Removal of the bypass around the Village of East Eddington releasing from further consideration the only four alternatives that met, at that time, the original Purpose and Needs of this Study, including the 3EIK-2/preferred alternative, leaving only three alternatives, none of which met the original Purposes and Needs of this Study.

    - And then—downgraded redesign of the proposed roadway sometime in 2011.

    - **With all these major changes—is this connector really necessary?**

DEIS Comment/Question #26.

Submitted by: Larry Adams, a Brewer resident, on April 23, 2012

The up and down history of 2B-(X):

1) Alternative 2B was removed from further consideration two times before the end of 2002.

   - Alternative 2B: "This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Alternative 2B would use approximately 5 miles of Route 9. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards. Additionally, this alternative would result in: • substantially greater proximity impacts (residences within 500 feet of the proposed roadway) in comparison to Alternative 3EIK-2 (200 residences v. 12 residences)". (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 Page ii and iii)

2) The Corporate Boundary Route was first presented to the PAC by the Town of Holden in November of 2002. It didn't get the support of the Study Group and was dismissed during the next PAC meeting; it was Holden's direct answer to alternatives within their town boundaries.

3) In May of 2003 all alternatives with the exception of the no-build and alternative 3EIK-2 were sent to detailed studies. This occurred at the end of the #7 Interagency Meeting held on May 13, 2003.

4) In September of 2003, the Town of Holden presented their Corporate Boundary Route once again—the second time in less than a year. This CBR route was to become alternative 2B-2.

   - "The Corporate Boundary route, officially called 2B-2, would roughly follow the Holden-Brewer lines. It would extend I-395 at its Wilson Street junction and intersect Eastern Avenue and Lambert Road before crossing into Holden just north of Clewleyville Corners. From there the highway would cross Levenseller Road, then enter Eddington and connect with Route 9. That part of Route 9 would be rebuilt as part of the project." (June 18, 2004 BDN article)

   - "The 2B-2 alternative is nearly the same as 2B, but it crosses into Holden after entering Eddington and then crosses back into Eddington to connect with 4.5 miles of improvements to Route 9." (August 23, 2004 BDN article)

   - "The corps is considering 2B-2 because Bryant and resident Jacqueline Smallwood presented it to them last fall, said Jay Clement, the Maine representative for the corps. He said it was the public's interest in 2B-2 that prompted the corps to consider it. "That is their route," he said." (August 23, 2004 BDN article)

- "The 10.7-mile 2B-2 alternative could affect 48.3 acres of 21 wetlands and would displace 22 homes. Eleven of these homes are on the planned road and 11 are on the rebuilt Route 9." (August 23, 2004 BDN article)

- "The shorter 2B alternative is 5.8 miles long and could affect 27.8 acres of five wetlands and would displace three residents, according to information released in November 2001 from DOT." (August 23, 2004 BDN article)

5) At that time the only difference between alternatives 2B and 2B-2 appeared to be how each alternative would use the existing segment of route 9. We were led to believe that alternative 2B-2 would be connected to a "rebuilt" or an "improved" Route 9, while alternative 2B would be connected to the existing route 9. Since there was no public involvement in this Study from 4/30/2003 until 8/20/2008—we were forced to rely solely on news articles in the Bangor Daily News for any Study updates. It is unclear when this "rebuilt Route 9" criteria was dropped from 2B-2 or even if it ever really existed, but at that time without "rebuilding" route 9, alternative 2B-2 became nothing more than alternative 2B—there was no longer any difference between the two.

6) 2B-2 seemed to disappear sometime in September of 2005 only to be put back in consideration in January of 2006 again supported by the Town of Holden. The MaineDOT/FHWA preferred route during this time was the 3EIK-2 (RING) route.

7) In April of 2009, is there any doubt what this chart says? Does 2B-2 meet the Purpose and Needs of this Study?

Purpose and Needs Matrix

Alternatives	Meets Purpose		Meets Needs		
	Study Purpose	USACE Purpose	System Linkage	Safety Concerns	Traffic Congestion
No-Build	No	No	No	No	No
Alternative 1-Upgrade	No	No	No	No	No
2B-2	No	No	No	Yes	No
3A-3EIK-1	Yes	Yes	Yes	Yes	Yes
3EIK-2	Yes	Yes	Yes	Yes	Yes
5A2E3K	Yes	Yes	Yes	Yes	Yes
5A2E3K-1	No	No	No	Yes	No
5A2E3K-2	Yes	Yes	Yes	Yes	Yes
5B2E3K-1	Yes	Yes	Yes	Yes	Yes

8) Is 2B-2 really the same alternative as 2B?

- The starting point is the same with both routes; the impact to my Woodridge Road neighborhood is the same with both routes and the connection point on route 9 in Eddington is exactly the same on both routes.

- 2B: "Length: 5.8 mi. of new alignment, 4.2 mi. of Route 9 without additional improvement"
  2B-2: "Length: 6.1 mi. of new alignment, 4.2 mi. of Route 9 without additional improvement"
  (DEIS page 258)

- Both alternatives use the same identical section of route 9; I have seen this route 9 segment reported as 4.5 miles in the BDN and I actually drove that section from the Eddington/Clifton town line to the connection point and found it at 4.5 miles via GPS; doesn't really matter, as the DEIS indicates, 2B and 2B-2 use the same segment of route 9 without additional improvement.

9) Since alternative 2B-2 is nothing more than a recycled alternative 2B, alternative 2B-2 was placed in consideration, by my best count, at least four times over a six year period. There have been no other alternatives of the 70+ alternatives studied that were treated in this way.

10) Why did the MaineDOT continue to allow this alternative to be removed and placed back in consideration so many times when this alternative had clear opposition from Brewer residents and City of Brewer officials throughout the previous decade?

11) Can't you understand why, now into the twelfth year of this study, impacted residents living on or near alternative 2B-2 are outraged? The preferred route of almost seven years was not only removed from preferred status, it was removed from further consideration along with every other route that previously met the purposes and needs of the study leaving three routes that did not previously meet the purposes and needs of this study.

12) Should we accept MaineDOT/FHWA/USACOE explanations as gospel without full detailed information? I find it absurd that after spending anywhere from $1.7 to $2.5 million dollars—this is the best you can do.

And now in April of 2012:

"After careful consideration of the range of alternatives developed in response to the study's purpose and needs and in coordination with its cooperating and participating agencies, the MaineDOT and the FHWA identified Alternative 2B-2 as the preferred alternative because they believe it best satisfies the study purpose and needs, would fulfill their statutory mission and responsibilities, and has the least adverse environmental impact." (DEIS s14)

The MaineDOT and the FHWA identified Alternative 2B-2 as the preferred alternative because they believe it best satisfies the study purpose and needs, HOWEVER 2B-2 is almost identical to the same 2B alternative that was removed not only once but twice from further consideration by the end of 2002. Congratulations—your Study Group managed to spend some $1.7 to $2.5 million dollars to reach a conclusion that an alternative thrown out two times ten years ago by your Study Group now "best satisfies the study purpose and needs" for this connector.

The real story why 2B was removed (twice in 2002) from further consideration—Once again:

"This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Alternative 2B would use approximately 5 miles of Route 9. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards. Additionally, this alternative would result in: • substantially greater proximity impacts (residences within 500 feet of the proposed roadway) in comparison to Alternative 3EIK-2 (200 residences v. 12 residences)". (I-395/Rt. 9 Transportation Study Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 Page ii and iii)

DEIS Comment/Question # 27. Submitted by: Larry Adams, a Brewer resident, on April 23, 2012.

On May 2nd the MDOT/FHWA will be presenting their selection of 2B-2/the Preferred Alternative at a Public Hearing. In my opinion, their decision is flawed by previous statements: the original System Linkage Needs statement of February 2002, reasons for removal of 2B from further consideration in 2002 and the Purpose and Needs Matrix of April 2009 tell a different story—alternative 2B-2 did not meet the original Purposes and Needs of the Study nine years into this Study, but now it is the preferred alternative. 2B and 2B-2 are almost identical alternatives. Explain why we should concur with an expenditure of $90+ million dollars to construct 2B-2 based on these statements and the Matrix. What is it about NO that you can't understand?

Purpose and Needs Matrix

Alternatives	Meets Purpose		Meets Needs		
	Study Purpose	USACE Purpose	System Linkage	Safety Concerns	Traffic Congestion
No-Build	No	No	No	No	No
Alternative 1-Upgrade	No	No	No	No	No
2B-2	No	No	No	Yes	No
3A-3EIK-1	Yes	Yes	Yes	Yes	Yes
3EIK-2	Yes	Yes	Yes	Yes	Yes
5A2E3K	Yes	Yes	Yes	Yes	Yes
5A2E3K-1	No	No	No	Yes	No
5A2E3K-2	Yes	Yes	Yes	Yes	Yes
5B2E3K-1	Yes	Yes	Yes	Yes	Yes

Previous Statements from MaineDOT/FHWA Transportation Professionals:

"Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46." (System Linkage Need Statement)

"Alternative 2B: This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Alternative 2B would use approximately 5 miles of Route 9. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards." (Reasons for removing alternative 2B from further consideration.)

(Transportation Improvement Strategies and Alternatives Analysis Technical Memorandum and U.S. Army Corps of Engineers Highway Methodology Phase I Submission October 2003 – page ii and page 5 of Summary)

DEIS Comment/Question #28.

Submitted by Larry Adams, a Brewer resident, on April 24, 2012

Atlantic Salmon:

Felts Brook has a clearly defined area of Atlantic Salmon rearing and spawning, identified in a September 10, 2010 map by the Maine IF&W, to the east of Route 9 for an area greater than ¼ mile that is within three miles of the proposed construction of alternative 2B-2.

"The lower reaches of Felts Brook and Eaton Brook adjacent to the Penobscot River potentially maintain viable Atlantic salmon populations and, therefore, constitute high-value fisheries. The riparian corridors along Felts Brook and Eaton Brook are generally well established and provide abundant shade and woody debris to enhance fish habitat (Town of Holden, 2007). However, the riparian corridors along the central portions of these streams have been degraded by the removal of woody vegetation, particularly in association with agricultural activities." (DEIS page 73)

"The build alternatives would impact aquatic habitats and fisheries through the road-stream crossing and channelization of streams (exhibit 3.6). Because roadstream crossings with natural bottoms would be used, small amounts of stream channel bottom habitat may be impacted during construction. The No-Build Alternative would not impact aquatic habitats or fisheries." (DEIS page 75/76)

"The build alternatives may affect Atlantic salmon and its designated critical habitat through the roadstream crossing and channelization of streams. The road-stream crossings may affect Atlantic salmon during their eggs and larvae stages. Construction of the road-stream crossings increases sediments that could affect migrating adult salmon." (DEIS page 107)

"The main watersheds in the study area are Felts Brook, Eaton Brook, Kidder Brook, Meadow Brook, Mill Brook, Davis Pond, the Thoroughfare, and Holbrook Pond (exhibit 3.3). All of the watersheds are located in the Lower Penobscot sub-watershed. Stormwater runoff in urban areas is one of the leading sources of water pollution in the United States. Impacts to surface waters result from the following: • bridging, enclosing in culverts, and rechanneling • new impervious area that increases contaminants or sediments carried in runoff • development in stream corridors and reduction in buffers of streams and waterways that would impact the ability of the buffer to treat stormwater. The No-Build Alternative would not impact surface waters." (DEIS page 69)

"The build alternatives would result in an increase in impervious surfaces. This would increase runoff and reduce the area available to absorb runoff." (DEIS page 73)

- The flow of Felts Brook is northwest to the Penobscot River away from I-395; any construction activity, storm runoff or chemicals from winter snow clearing operations will eventually flow through that habitat area. How will storm runoff and snow clearing operations affect Atlantic Salmon habitat?

- How does the MaineDOT/FHWA plan to limit damage to the Atlantic Salmon habitat now and in the future if this connector is approved and goes to construction?

- Why is this Atlantic Salmon habitat seemingly less important than a vernal pool full of frogs and salamanders?

- "Stormwater runoff in urban areas is one of the leading sources of water pollution in the United States."(DEIS page 69) How will this pollution source affect the Atlantic Salmon habitat?

- Why was the PAC advised, at the start of the Study, to not route any of the proposed alternatives through the Felts Brook wetland, but now alternative 2B-2 will blast right through the center of it and bridging over Felts Brook and an unnamed tributary in three places?

- Per a Memorandum from the US Department of the Interior dated August 9, 1979 reference the DEIS for the I-395 extension to Brewer:

    - "However, in view of possible detrimental impacts on Atlantic Salmon spawning, the Fish and Wildlife Service advises us that they may object to permit applications for construction in Felts Brook and its adjacent wetlands."

    - "Felts Brook, which empties into the Bangor Salmon Pool of the Penobscot River, supports a small native population of Atlantic Salmon and brook trout. It also serves as a salmon spawning area. Within the U.S. Fish and Wildlife Service's anadromous fish program, the Penobscot River is listed as a top priority stream for restoration of the Atlantic Salmon…."

    - Where is the same concern today for the Atlantic Salmon habitat?

    - What about native brook trout in Felts Brook?

Exhibit S.9 – *Cumulative Effects for the Build Alternatives*

Alternative	Surface Waters	Floodplains (acres)	Wetlands (acres)	Forest Vegetation (acres)	Wildlife Habitat (acres)
2B-2/the Preferred Alternative	4,900 feet of streams; unknown impacts from stormwater runoff.	26	182	602	873
5A2B-2	5,000 feet of streams; unknown impacts from stormwater runoff.	18	187	636	924
5B2B-2	4,800 feet of streams; unknown impacts from stormwater runoff.	27	188	602	556

(DEIS page s18)

- The cumulative Effects to Surface Waters for alternative 2B-2: "4,900 feet of streams; unknown impacts from stormwater runoff."

- Are we to believe that there is no way to measure the impacts to 4,900 feet of streams upstream of an Atlantic Salmon habitat?

- Maybe all this is why the PAC was told back in the year 2000 to stay out of Felts Brook?

- The impacts to the Atlantic Salmon habitat are honestly provided in the DEIS making one wonder why something as contradictory as the suggestion of any alternative transiting through the Felts Brook wetlands would be made. The environmental impacts may be irreversible and seem unnecessary since other alternatives would have not affected this area. Since the three remaining alternatives do not meet the original Purpose and Needs of the Study, why would anyone want to take that chance?

- No-Build will not affect the Felts Brook Atlantic Salmon habitat.

- Take this selection to No-Build or build an alternative that meets the original criteria—it's that simple.

DEIS Comment/Question #28A.

Submitted by Larry Adams, a Brewer resident, on April 24, 2012

Resubmitted May 4, 2012 with additional information.

Atlantic Salmon:

Felts Brook has a clearly defined area of Atlantic Salmon rearing and spawning, identified in a September 10, 2010 map by the Maine IF&W, to the east of Route 9 for an area greater than ¼ mile that is within three miles of the proposed construction of alternative 2B-2.

"The lower reaches of Felts Brook and Eaton Brook adjacent to the Penobscot River potentially maintain viable Atlantic salmon populations and, therefore, constitute high-value fisheries. The riparian corridors along Felts Brook and Eaton Brook are generally well established and provide abundant shade and woody debris to enhance fish habitat (Town of Holden, 2007). However, the riparian corridors along the central portions of these streams have been degraded by the removal of woody vegetation, particularly in association with agricultural activities." (DEIS page 73)

"The build alternatives would impact aquatic habitats and fisheries through the road-stream crossing and channelization of streams (exhibit 3.6). Because roadstream crossings with natural bottoms would be used, small amounts of stream channel bottom habitat may be impacted during construction. The No-Build Alternative would not impact aquatic habitats or fisheries." (DEIS page 75/76)

"The build alternatives may affect Atlantic salmon and its designated critical habitat through the roadstream crossing and channelization of streams. The road-stream crossings may affect Atlantic salmon during their eggs and larvae stages. Construction of the road-stream crossings increases sediments that could affect migrating adult salmon." (DEIS page 107)

"The main watersheds in the study area are Felts Brook, Eaton Brook, Kidder Brook, Meadow Brook, Mill Brook, Davis Pond, the Thoroughfare, and Holbrook Pond (exhibit 3.3). All of the watersheds are located in the Lower Penobscot sub-watershed. Stormwater runoff in urban areas is one of the leading sources of water pollution in the United States. Impacts to surface waters result from the following: • bridging, enclosing in culverts, and rechanneling • new impervious area that increases contaminants or sediments carried in runoff • development in stream corridors and reduction in buffers of streams and waterways that would impact the ability of the buffer to treat stormwater. The No-Build Alternative would not impact surface waters." (DEIS page 69)

"The build alternatives would result in an increase in impervious surfaces. This would increase runoff and reduce the area available to absorb runoff." (DEIS page 73)

- The flow of Felts Brook is northwest to the Penobscot River away from I-395; any construction activity, storm runoff or chemicals from winter snow clearing operations will eventually flow through that habitat area. How will storm runoff and snow clearing operations affect Atlantic Salmon habitat? **21-1**

- How does the MaineDOT/FHWA plan to limit damage to the Atlantic Salmon habitat now and in the future if this connector is approved and goes to construction? **21-2**

- Why is this Atlantic Salmon habitat seemingly less important than a vernal pool full of frogs and salamanders?

- "Stormwater runoff in urban areas is one of the leading sources of water pollution in the United States."(DEIS page 69) How will this pollution source affect the Atlantic Salmon habitat? **21-3**

- Why was the PAC advised, at the start of the Study, to not route any of the proposed alternatives through the Felts Brook wetland, but now alternative 2B-2 will blast right through the center of it and bridging over Felts Brook and an unnamed tributary in three places?

- Per a Memorandum from the US Department of the Interior dated August 9, 1979 reference the DEIS for the I-395 extension to Brewer:

    - "However, in view of possible detrimental impacts on Atlantic Salmon spawning, the Fish and Wildlife Service advises us that they may object to permit applications for construction in Felts Brook and its adjacent wetlands."

    - "Felts Brook, which empties into the Bangor Salmon Pool of the Penobscot River, supports a small native population of Atlantic Salmon and brook trout. It also serves as a salmon spawning area. Within the U.S. Fish and Wildlife Service's anadromous fish program, the Penobscot River is listed as a top priority stream for restoration of the Atlantic Salmon…."

    - Where is the same concern today for the Atlantic Salmon habitat?

    - What about native brook trout in Felts Brook?

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- No-Build will not affect the Felts Brook Atlantic Salmon habitat.

- Take this selection to No-Build or build an alternative that meets the original criteria—it's that simple.

This information was obtained from a Maine Freedom of Access Act request:

Comments on I-395 Draft Chapter 3

Page 3 In terms of Maine's designated Biophysical Region it is in the Central Maine Embayment Biophysical Subregion

Page 5- Is there a need to complete the NRCS farmland soils form FPPA-NRCS-CPA-106?

Page13 Information from MDMR-SRF Richard,

> Looking at the map, it appears that two alternatives could affect Atlantic salmon habitat: 5B2E3K and 2B-2. Both alternatives cross Felts Brook and Eaton Brook. We have documented spawning in Eaton Brook in the vicinity of Eastern Avenue and USFWS has documented juvenile salmon in both streams. Felts Brook at the current terminus of I-395 at Wilson Street does not possess salmon habitat; the habitat is all downstream of this location. Wende can comment regarding proposed critical habitat for these streams.
> Norm

It looks like any work around felts brook Downstream of 1-A will need review.

Page 15 second column, 3rd line of second full paragraph: edit phrase "by trees by trees"

Page 17 as we talked this morning, Context discussion should be based on study area wide wetland mapping- once alternatives are reduced to a manageable size, and can be compared against each other, the field refined boundary wetland mapping can be used. This mapping was done to give a further basis for comparison between alternatives. An actual delineation will be done during the permitting of the LEDPA.

Page 18 Wetland that are associated with Eaton and Felts Brook perform a groundwater discharge function which adds to the baseflow and may keep the stream temperatures down.

Page 19 3.2.2.5. There are no Designated Wild and Scenic Rivers in the study area

Page 22- GIS mapping of current state mapped Undeveloped Blocks and Deer Wintering Areas will be submitted. If undeveloped blocks were modified to meet situations in the field, that should be documented. Updated Deer Wintering areas were updated recently to reflect new conditions.

Page 26 - Bulleted vernal pool criteria second bullet – "10 or more eggs of the blue spotted…. Should read 10 or more eggmasses. Make this change on subsequent criteria.

Page 27 Ribbon snakes should be listed as a vernal pool Herptile. None were seen.

Page 28 3.2.5.1 Federal Endangered or Threatened Species.
We have the following information from Wende Mahaney USFWS concerning Section 7 process
"A formal consultation is a strong possibility but perhaps not a given at this point. Salmon in Eaton Brook aren't endangered now, but they likely will be with the new listing. Both streams will be designated as CH, so as Jeff says, we will need to examine specific crossing locations and evaluate the occurrence of PCE's and consider how the project might or might not affect downstream habitat or salmon in the case of Felts Brook if crossings would be above the salmon habitat. I don't know if Felts and Eaton are checked for the presence of salmon on a regular/annual basis, so we might also need to collect some current information of salmon presence."

Also- Alewife, rainbow smelt and blueback herring are of concern to agencies but used here, species of special concern, does not currently have any regulatory standing with USFWS. The Atlantic sturgeon is being monitored by NMFS but the ranking is not a regulatory.

Richard

"We have documented spawning in Eaton Brook in the vicinity of Eastern Avenue and USFWS has documented juvenile salmon in both streams. Felts Brook at the current terminus of I-395 at Wilson Street does not possess salmon habitat; the habitat is all downstream of this location."

"Salmon in Eaton Brook aren't endangered now, but they likely will be with the new listing. Both streams will be designated as CH, so as Jeff says, we will need to examine specific crossing locations and evaluate the occurrence of PCE's and consider how the project might or might not affect downstream habitat or salmon in the case of Felts Brook if crossings would be above the salmon habitat. I don't know if Felts or Eaton are checked for the presence of salmon on a regular/annual basis, so we might also need to collect some current information of salmon presence."

- How far downstream of the current terminus of I-395 at Wilson Street have Atlantic salmon been located and documented in Felts Brook?
- Is it really acceptable, considering the possibility of irreversible impacts to the Atlantic salmon habitat, to bridge alternative 2B-2/5A2B-2 over Eaton Brook if Atlantic salmon spawning and the existence of juvenile Atlantic salmon have been documented by state and federal agencies in a stream that may now be designated as critical habitat?
- Have the salmon in Eaton Brook been listed as endangered?
- Have Eaton Brook and Felts Brook been designated as critical habitat (CH)?
- Primary constituent element (PCE): migration habitat or spawning/rearing habitat when referring to Atlantic salmon. Has this evaluation taken place? If not, when and shouldn't the evaluation be completed before this study goes any further?
- Has the determination been made yet as how the project might or might not affect the downstream habitat of Atlantic salmon in Felts Brook? If not, when and shouldn't the evaluation be completed before this study goes any further?
- Is this above information accurate and pertinent to this project, when was this information provided and why isn't it included in the DEIS?—if it is please indicate where to find it.
- Again—I would ask why is this Atlantic salmon habitat seemingly less important than a vernal pool full of frogs and salamanders?
- "The No-Build Alternative would not impact aquatic habitats or fisheries."
  (DEIS page 75)

DEIS Comment/Question #29.

Submitted by Larry Adams, a Brewer resident, on April 24, 2012

My neighborhood will be forever harmed:

"During public-involvement activities, residents in the study area favored keeping the build alternatives as separated from residential areas as possible. They strongly indicated that they placed a higher value on maintaining quiet residential areas than on preserving open space, which they felt was more important in comparison. In general, residents felt that the social environment should be valued more highly than the natural environment (section 4.3)." (DEIS page 137/138)

- Then why have you sited the right-of-way of two of the final three routes within 100' of my Woodridge Road neighborhood? The fact that these two routes do not meet the original criteria of the study even makes the situation worse. So much for listening to the PAC and the public—I thought we your true customers? Is this really the best choice?

- Where is the balance between people and the environment?

"For people living and working in proximity to the build alternatives, their view of the landscape in the area would change. The scenic view of some areas would be altered by the build alternatives and the loss of aesthetic resources such as vegetation, forestland, farmland, pastures, and/or streams." (DEIS page 138)

- We will forever be harmed by this proposed connector, a connector that I'm not even sure is needed—if your decreased traffic numbers caused a downgrade in the highway design to remove the four lane divided highway upgrade option from the previous decade—do the traffic numbers really show a need for this connector?

"The build alternatives would introduce additional lighting along highways and at the proposed interchanges and possibly lighting at the intersection. The build alternatives would introduce new lighting, to areas with little or no lighting, from headlights. Lighting at the interchanges and intersection would allow motorists to safely enter and exit the build alternatives. Lighting from vehicles using the build alternatives would affect homes and businesses that are located close to them. Typically, low beam and high beam headlights shine no more than 350 and 450 feet ahead, respectively (Naval Safety Center, 2004)." (DEIS page 138)

- Reading these statements is a real insult to the people that are directly impacted with loss of properties and/or their homes and those of us that you don't even define as indirectly or impacted at all but will surely suffer a devaluation in property values by proximity to this connector. These statements are indeed statements of fact—this is what will happen if the connector goes to construction. Our quality of life will forever be changed.

- My neighborhood will receive no benefits from this connector, just nothing but negatives. No one should ever be impacted by a proposal for any kind of project that doesn't meet the original project criteria.

DEIS Comment/Question #30.
Submitted by Larry Adams, a Brewer resident, on April 24, 2012

Public Involvement:

http://www.maine.gov/mdot/pi/

I have included the executive summary and mission statement from your Final Draft copy of a March 2010 Document defining Public Involvement with MaineDOT projects:

Maine Department of Transportation
Public Involvement Plan Final Draft
March 5, 2010
Executive Summary
MaineDOT Public Involvement Plan

MaineDOT's approach to public involvement is based on the principle that everyone who uses Maine's transportation system is a customer. High-quality public participation can only be carried out when customers are identified and brought into the planning process early and then kept involved throughout all phases of transportation decision-making.

MaineDOT developed its Public Involvement Plan with the goal of providing the highest quality public participation possible. The Plan outlines strategies for creating meaningful public involvement opportunities at all steps in the decision-making process, starting with development of MaineDOT's Twenty-Year Statewide Transportation Plan and continuing to the creation of the Six Year Transportation Improvement Plan and the Biennial Capital Work Plan, and then on to the project development phase for implementation of specific transportation system improvements.

Depending on the nature of and interest in an activity or project, public involvement can vary from simple public information to more formal approaches such as the development of project-specific public involvement plans. The public involvement plans often include advisory and stakeholder committees and other transportation planning partners such as the state's Regional Planning Councils, Metropolitan Planning Organizations, Indian Tribal Governments, the Maine Turnpike Authority and other stakeholders. MaineDOT has developed a free-flowing process that includes a variety of tools designed to ensure that people have access to as much information as possible and opportunities to participate in decisions affecting Maine's transportation system.

MaineDOT uses three primary types of public involvement, depending on the scope of the effort and the anticipated level of public interest, as follows:

- **Public information.** MaineDOT makes traveler safety updates and other public information announcements, publishes informational brochures, and posts legal notices, news releases, construction advisories, travel advisories, and other information-only products for the benefit of the traveling public.

- **Public participation.** MaineDOT frequently provides project- or activity-specific information and encourages participation from stakeholders and other interested parties. Meetings and public hearings are the most common ways to encourage such two-way communication. However, interested or potentially affected persons cannot always attend meetings, so MaineDOT also uses the Internet and other public outreach methods both to provide information and to seek public opinions. The Internet, in fact, is becoming a popular tool to facilitate public participation because it allows people to view materials and comment at their own pace.

- **Public consultation/collaboration.** MaineDOT typically uses this approach with large-scale modernization, capacity or expansion projects that are expected to generate substantial public interest. MaineDOT seeks to solicit significant public feedback and new ideas from the onset as it works to identify a transportation problem and develop solutions. Such significant and early involvement produces a collaborative approach to problem-solving that results in a full team effort in defining the problem and developing its resolution. Examples of MaineDOT's public consultation/collaboration process include the development of:
  - The statewide long-range multi-modal transportation plan;
  - The Six Year Transportation Improvement Plan;
  - The Biennial Capital Work Plan;
  - Statewide rail, freight, ferry service and transit Plans;
  - Feasibility and National Environmental Policy Act (NEPA) studies;
  - Rules required as the result of legislative actions; and
  - Project development activities, such as reconstruction of a town's "Main Street", the addition of a new trail, or an intermodal facility.

Overall, MaineDOT recognizes that every planning and project development activity that it considers creates some public impact. Even the smallest project can sometimes produce a great outcry from those affected. It is difficult to anticipate all public responses that will be received, but, with everything that we do, we must always consider that there will be public interest because the transportation system impacts every person in the state. An early and continuous public involvement process is the key to keeping the public fully informed and participatory in making decisions that affect Maine's transportation system. As such, the public is one of MaineDOT's most important partners.

The Maine Department of Transportation *Public Involvement Plan* provides an overview of the department's mission and the objectives of its Plan. The Plan describes state and federal regulations, including a summary of the activities requiring public participation. It also discusses the major planning and implementation activities undertaken by the department, identifies major transportation planning partners in Maine and describes the three major types of public involvement that are used to ensure the traveling public is well-informed and provided ample opportunities to participate in making decisions. It also provides a tool that can be used to identify appropriate public outreach methods to ensure the greatest ability for the public to participate in transportation systems decision making in Maine.

Excerpts from City of Brewer Resolve 2012-B008 dated March 13, 2012

"WHEREAS, the City has gone on record on numerous occasions about the need to take into account local, regional, and statewide transportation considerations in selecting a final route for this important transportation connector; and" (City of Brewer Resolve dated March 13, 2012)

"WHEREAS, the City of Brewer and other stakeholders have been excluded from the public process as well as the decision-making process used by MDOT;" (City of Brewer Resolve dated March 13, 2012)

"BE IT FURTHER RESOLVED, that City of Brewer requests and urges MDOT to use a more open and transparent process when making decisions that impact multiple municipalities, their governing bodies, and their citizens." (City of Brewer Resolve dated March 13, 2012)

- "MaineDOT's approach to public involvement is based on the principle that everyone who uses Maine's transportation system is a customer. High-quality public participation can only be carried out when customers are identified and brought into the planning process early and then kept involved throughout all phases of transportation decision-making."

- "the City of Brewer and other stakeholders have been excluded from the public process as well as the decision-making process used by MDOT"

- "the City has gone on record on numerous occasions about the need to take into account local, regional, and statewide transportation considerations in selecting a final route for this important transportation connector"

- "An early and continuous public involvement process is the key to keeping the public fully informed and participatory in making decisions that affect Maine's transportation system. As such, the public is one of MaineDOT's most important partners."

- "City of Brewer requests and urges MDOT to use a more open and transparent process when making decisions that impact multiple municipalities, their governing bodies, and their citizens."

1) Private Citizens, the Public Advisory Committee and the elected officials of the City of Brewer were not kept involved throughout this project and were excluded from all final decision-making. Decisions made since the last PAC meeting of 4/15/2009 were accomplished completely outside of public and civic scrutiny with absolutely no transparency.

2) This is a draft document, but it is the latest available on your own MDOT website. With a final draft date of March 2010, this should have been in effect during the most critical decision-making part of this project—September 2010 when the outcome of this project was drastically changed, again your decision—not mine or the elected officials of the City of Brewer.

3) You have apologized now several times for not keeping us abreast of the latest news but that in a way seems like a smoke screen to hide the bigger issue. Per your own document, the real stakeholders of this project—the three communities that will be severely impacted forever by your decision-making did not have a say in the selection process. You will say that we do now because we can submit our comments on the DEIS, but the remaining alternatives in the DEIS are not representative of the last decade of this study. None of the remaining alternatives meet the original Purposes and Needs of the Study and two are almost identical so it comes down to basically two routes and neither one of them should remain in consideration. If the purpose of the DEIS was to have a fair comparison of alternatives—the fairness certainly does not seem to exist. You will never convince me that 2B-2 is the best solution for this connector, a highway that should have connected I-395 to Route 9 at the Eddington/Clifton town line; what you are presenting is nothing more than a North Brewer Bypass that does not accomplish the original criteria that you were tasked with as far back as the year 2000.

4) If you want this connector to be accepted, ask the impacted people within their communities what they want. When the Town of Holden was considered the "community of impact" early on in this study, the MaineDOT went way out of their way to accommodate them, giving them the ability to attempt to get consensus within their community and even to the extent of

allowing them to present another alternative after the study appeared to be near completion sending 3EIK-2 and no-build to detailed studies in May of 2003; that alternative presented in September of 2003 was unfortunately 2B-2. You have not given the City of Brewer and the Town of Eddington the same consideration. All three final alternatives are unacceptable and that will not go away until you sit back at the table, really listen this time and select an alternative that meets the original Purposes and Needs of the Study. If you can't meet the original criteria, NO BUILD is the only option.

1.1. MaineDOT Mission Statement

This document provides guidance for MaineDOT personnel and the public on planning, designing and implementing issue-specific public involvement plans in order to achieve MaineDOT's *mission*:

> MaineDOT's Mission:
>
> Responsibly provide a safe, efficient, and reliable transportation system that supports economic opportunity and quality of life.

MaineDOT is committed to:

- Informing the public,
- Proactively seeking and encouraging the public's early and continuing input and participation when developing policies, plans, programs, studies, projects, operations and maintenance activities,
- Adhering to the principles of Environmental Justice and Title VI of the U.S. Civil Rights Act,
- Being consistent with the MaineDOT Strategic Plan and the objectives of *Connecting Maine*, MaineDOT's statewide long-range multimodal transportation plan,
- Improving customer service through training and effective external communication with stakeholders and the public,
- Enhancing public awareness and participation,
- Being fair, responsive and accountable to traditional and non-traditional stakeholders,
- Communicating effectively with the public, and
- Making the best possible transportation decisions to effect an efficient multimodal transportation system that meets the MaineDOT mission and needs of the people of Maine.

1) How does the MaineDOT's Mission statement support my quality of life with your selection of alternative 2B-2 as the preferred alternative?

   How can this be the best possible transportation decision when:

2) 2B-2 is almost identical to the same 2B alternative that was removed not only once but twice from further consideration by the end of 2002. Your Study Group managed to spend some $1.7 to $2.5 million dollars to reach a conclusion that an alternative thrown out two times ten years ago by the same Study Group now "best satisfies the study purpose and needs" for this connector.

3) "Alternative 2B: "This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Alternative 2B would use approximately 5 miles of Route 9. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."

4) "Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area."

5) "Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46."

6) In April of 2009 alternative 2B-2 did not meet the Study Purpose, ACOE Purpose, System Linkage Need and Traffic Congestion Need. Alternative 2B-2 only met 20% of the overall Purpose and Needs of the Study and that is only 20% greater than the No-build option.

7) "However, future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project." (DEIS page S19)

8) Alternative 2B-2 may stifle future development and business opportunities in Eddington, it will take away 130 parking spaces (20%) at the Eastern Maine Medical Center's CancerCare of Maine facility in Brewer and it squelches future development plans that the City of Brewer had for a hotel complex/conference center between CancerCare and I-395.

DEIS Comment/Question #31. Submitted by Larry Adams, a Brewer resident, on April 27, 2012

What would the Purpose and Needs Matrix really look like in April of 2012?

Purpose and Needs Matrix **April 18, 2012**

Alternatives	Meets Purpose		Meets Needs		
	Study Purpose	USACE Purpose	System Linkage	Safety Concerns	Traffic Congestion
No-Build	NO	NO	NO	NO	NO
2B-2	NO	YES	YES	NO	NO
5A2B-2	NO	YES	YES	NO	NO
5B2B-2	NO	YES	YES	NO	NO

not an official MaineDOT document

- The Safety Concerns Need and Traffic Congestion Need can/will only be met if the Study Group continues to ignore their own previous statements removing alternative 2B from further consideration (twice) before the end of 2002; the April 2009 Purpose and Needs Matrix; the downgraded design in 2011 removing the planned upgrade to a full four-lane divided highway in the future; and the work accomplished by the Public Advisory Committee over the previous decade. "..... would fail to adequately address the traffic congestion needs in the study area." AND "Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."

- When the Village of East Eddington bypass was eliminated in Sept. 2010—the Study Group decided that moving the connection point westerly by 4.5 miles was appropriate while meeting the System Linkage Need—I disagree—but YES favors Study Group.

- The Study Purpose cannot be met because the regional system linkage need is only marginally improved at best and any improvement in safety of Route 46 and 1A may be unobtainable if safety on route 9 has "the potential for new safety concerns and hazards."

- The USACOE Purpose is met as the ACOE disagreed that the System Linkage Need of an east of route 46 connection point was necessary. "Ray added that the Corps specifically requested that at least one alternative that connects to Route 9 west of Route 46 be retained in the DEIS."

- **MaineDOT/FHWA officials should immediately call on all stakeholders to assemble and assist their agencies with decision-making leading to the final selection of an alternative based on the original project criterion, if consensus is unattainable—the only answer is the NO-BUILD option.**

DEIS Comment/Question # 32.

Submitted by: Larry Adams, a Brewer resident, on April 27, 2012

Why aren't you listening?

Elected officials from two of the three impacted communities within this study area have now loudly voiced their opinions and concerns via resolves from the City of Brewer on March 12, 2012 and from the Town of Eddington on April 24, 2012 withdrawing support for the proposed connector construction and supporting the No-Build option.

Why these resolutions were necessary:

- This Study Group failed to advise the public and their elected governing bodies of significant changes made in September 2010 to December 2010 that drastically altered the outcome of this Study; overturning the support, work and decisions of the Public Advisory Committee and others within the Study Group over the previous decade.

- MaineDOT/FHWA officials excluded the City of Brewer and other stakeholders from the public process as well as the decision-making process used in the selection of the remaining alternatives to be presented in the DEIS and the selection of 2B-2 as the preferred alternative. The last PAC meeting was held on 4/15/2009—the last time this project was discussed openly in the public. The decision-making process has been solely the charge of the MaineDOT/FHWA and other State and Federal agencies—not the public, not the Public Advisory Committee and not our elected governing bodies.

- This wasn't the first time of exclusion —MaineDOT/FHWA officials also previously excluded the City of Brewer and other stakeholders from the public process for the period of April 30, 2003 until June 4, 2008. In May of 2003, 3EIK-2/the MaineDOT/FHWA preferred alternative and no-build were sent to detailed studies—all other alternatives were removed from further consideration. Without scrutiny or the knowledge of most of the public and their elected officials, alternative 2B-2 (a recycled version of the original 2B alternative already removed twice from further consideration by the end of 2002) was allowed to be presented to the Study Group by the Town of Holden (for the second time in less than a year) and placed in consideration in September of 2003; later we find that 2B-2 was included as the 2nd alternative, out of only two, with 3EIK-2 in the draft ACOE Permit Application—as first reported at the August 2008 PAC meeting. That's a lot of undercover decision-making and a lot of changes outside of the scrutiny of the public and their governing bodies.

- As a matter of fact, the MaineDOT/FHWA and the other State and Federal Agencies involved in this Study have failed to operate in an open and transparent

manner for almost eight of the twelve years of this study. Two-thirds of this study has had absolutely zero public involvement even though there was a Public Advisory Committee existing until at least April of 2009—the PAC wasn't included in any discussions or decisions made during that same eight year time period. How can there be any accountability or any transparency when you fail to engage the public? AND, how did you expect to get consensus on this proposal, when you knew it would not be well received?

- This Study Group has failed to present even one single alternative in the DEIS that meets the original Purposes and Needs of this Study as tasked for the previous decade. The three alternatives remaining in consideration are not representative of the previous decade of work by the Public Advisory Committee and none of the remaining alternatives meet the original Purposes and Needs of the Study—none—zero—nada.

- This Study Group has failed to present an alternative that demonstrates a real balance between the environment and the homeowner; all State and Federal agencies involved in this Study have failed to protect the most important part of the environment—real live human beings. Save the frog and salamander habitat at any cost—move the people, raze their homes—seems to be the mantra of this Study Group.

- The MaineDOT/FHWA has failed to operate in an open and transparent manner when making their final decisions on this Study impacting several communities, their governing bodies and their citizens—with absolutely no community scrutiny or consensus.

<u>What the next step should be:</u>

- Immediately halt this Study and bring this selection process back to the real stakeholders of this project: the private citizens and their elected government officials with their PAC members to gain consensus on an appropriate alternative for this connector that meets the original criteria and intent of this project.

- You need to start talking to us and not at us; start listening to our opinions and concerns, you seem all too eager to forget about the history of this study, since there are many previous statements damaging to your cause. Don't fall into this trap: "As one senior MaineDOT engineer used to remark, all it takes is "one angry man with a laptop" to significantly impede forward progress." That is not what this is all about.

- Work with us and not against us…….

DEIS Comment/Question #33.

Submitted by Larry Adams, a Brewer resident on May 04, 2012

The MDOT Vision of this project:

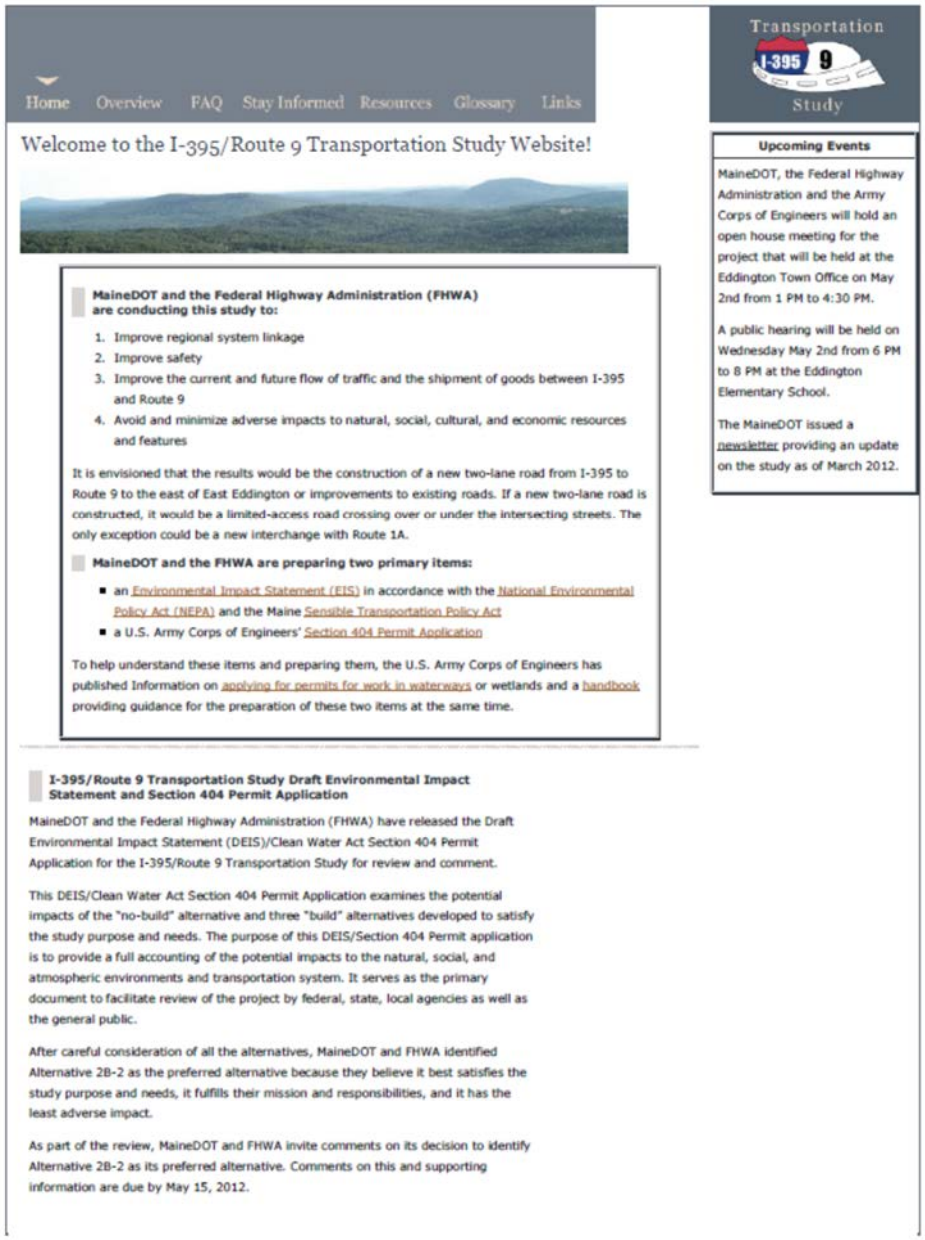
Isn't it interesting that at this point in the process, twelve years into this Study that a statement such as this can still show up on the home page of an official MDOT Study webpage? Attached, as taken today, is a screen capture or go see for yourself: http://www.i395-rt9-study.com/home.html

"It is envisioned that the results would be the construction of a new two-lane road from I-395 to Route 9 to the east of East Eddington or improvements to existing roads. If a new two-lane road is constructed, it would be a limited-access road crossing over or under the intersecting streets. The only exception could be a new interchange with Route 1A."

All east of East Eddington alternatives were removed as of September of 2010 – leaving no alternatives meeting their "vision" statement.

This was the vision of this Study Group and the Public Advisory Committee from the start of the Study, somehow after April 15, 2009 the vision became blurred.

Page 1 of Homepage on next page:



Home Overview FAQ Stay Informed Resources Glossary Links

Transportation I-395 9 Study

Welcome to the I-395/Route 9 Transportation Study Website!

MaineDOT and the Federal Highway Administration (FHWA) are conducting this study to:

1. Improve regional system linkage
2. Improve safety
3. Improve the current and future flow of traffic and the shipment of goods between I-395 and Route 9
4. Avoid and minimize adverse impacts to natural, social, cultural, and economic resources and features

It is envisioned that the results would be the construction of a new two-lane road from I-395 to Route 9 to the east of East Eddington or improvements to existing roads. If a new two-lane road is constructed, it would be a limited-access road crossing over or under the intersecting streets. The only exception could be a new interchange with Route 1A.

MaineDOT and the FHWA are preparing two primary items:

- an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA) and the Maine Sensible Transportation Policy Act
- a U.S. Army Corps of Engineers' Section 404 Permit Application

To help understand these items and preparing them, the U.S. Army Corps of Engineers has published Information on applying for permits for work in waterways or wetlands and a handbook providing guidance for the preparation of these two items at the same time.

Upcoming Events

MaineDOT, the Federal Highway Administration and the Army Corps of Engineers will hold an open house meeting for the project that will be held at the Eddington Town Office on May 2nd from 1 PM to 4:30 PM.

A public hearing will be held on Wednesday May 2nd from 6 PM to 8 PM at the Eddington Elementary School.

The MaineDOT issued a newsletter providing an update on the study as of March 2012.

I-395/Route 9 Transportation Study Draft Environmental Impact Statement and Section 404 Permit Application

MaineDOT and the Federal Highway Administration (FHWA) have released the Draft Environmental Impact Statement (DEIS)/Clean Water Act Section 404 Permit Application for the I-395/Route 9 Transportation Study for review and comment.

This DEIS/Clean Water Act Section 404 Permit Application examines the potential impacts of the "no-build" alternative and three "build" alternatives developed to satisfy the study purpose and needs. The purpose of this DEIS/Section 404 Permit application is to provide a full accounting of the potential impacts to the natural, social, and atmospheric environments and transportation system. It serves as the primary document to facilitate review of the project by federal, state, local agencies as well as the general public.

After careful consideration of all the alternatives, MaineDOT and FHWA identified Alternative 2B-2 as the preferred alternative because they believe it best satisfies the study purpose and needs, it fulfills their mission and responsibilities, and it has the least adverse impact.

As part of the review, MaineDOT and FHWA invite comments on its decision to identify Alternative 2B-2 as its preferred alternative. Comments on this and supporting information are due by May 15, 2012.

DEIS Comment/Question #34

Submitted by Larry Adams, a Brewer resident, on 5/04/2012

Final Thoughts:

If 2B-2/the preferred alternative is such a fantastic choice, why wasn't this decision made ten years ago when the 2B alternative was last in consideration? The original 2B alternative was removed from further consideration twice before the end of 2002. Can you dispute that 2B-2 is nothing more than a recycled 2B? The moment the Study Group removed the word "rebuilt" from the description of Route 9—alternative 2B-2 became almost identical to the original 2B alternative. 2B is equal to 2B-2 or is it really 2B-2-1?

And just in case you've forgotten why the original 2B alternative was removed from further consideration: "This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."

How much money has been expended supporting this Study over the past ten years?

Couldn't that money have been better spent on improving our failing infrastructure?

Maybe the better question for the DEIS is where did the money go?

Either the work of your Study Group in concurrence with the Public Advisory Committee during the initial eight and a half years from the 1st PAC meeting held on 9/11/2000 to the last PAC meeting held on 4/15/2009 was faulty—OR—the work of your Study Group working outside of the Public Advisory Committee since April 15, 2009 has been faulty. You can't have it both ways. Your decisions of today contradict the decisions of a good part of a decade of work.

You are basing decisions on traffic data from 1998 and 2006; why hasn't the MaineDOT or the FHWA requested a more recent set of traffic numbers?

The reason you now give for the viability of 2B-2: "traffic volumes weren't materializing as originally anticipated (downturn in the economy, increase in the price of gas) is shortsighted. At some point the economy will rebound, along with an increase in traffic numbers, and it will surely be before the year 2035 that you estimate for Route 9 traffic capacity. If the price of gas has that drastic of an effect on traffic numbers—have you factored that into your future numbers?

22-1

You cannot convince me that in a mere seventeen months alternative 2B-2 went from only meeting 20% (1 out of 5) of the Purpose and Needs in April 15, 2009 to meeting 100% of the Purpose and Needs with the added mantle of "preferred alternative" by September 21, 2010.

Something doesn't add up with this outcome—the process seems illogical—and if the first 8.5 years of work within this study by the PAC was all for naught—someone in your Study Group owes the taxpayers an explanation and their money back.

We deserve nothing less than having this process taken back to the table so that all stakeholders have a say in the final selection of an alternative that meets the original criteria and the intent of the project. This process needs to be accomplished in an open and transparent manner with all stakeholders having a say in the decision-making.

AND as my neighbor clearly pointed out:

2B-2 quotation:"It was selected because it has the least environmental impact and lowest estimated cost, by far." (March 2012 MaineDOT Mailer)

THE ABOVE STATEMENT IS INCORRECT BECAUSE:

NO-BUILD has the least environmental impact and lowest estimated cost, by far.

DEIS Comment/Question #35. Submitted by Larry Adams, a Brewer resident, on May 4, 2012

Copy of statement released to the Bangor Daily News on 5/02/2012:

The I-395/Route 9 Study Group is disregarding the original criteria and intent of the project: Alternative 2B was removed from further consideration not only once—but twice before the end of 2002. The reasons were clear: "This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."[1]

In the same document, the original system linkage need was further defined: "To meet the need of improved regional system linkage while minimizing impacts to people, it was determined that an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46."[1] That paragraph continued to give a glimpse of what may be expected if an alternative does not meet the original system linkage need parameter: "Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46."[1]

MDOT's Purpose and Needs Matrix[2], dated April 15, 2009, contained no engineering data that could be manipulated or misunderstood by anyone—just simple yes and no answers. Did 2B-2 meet the following criteria: Study Purpose? NO; ACOE Purpose? NO; System Linkage Need? NO; Traffic Congestion Need? NO; Safety Concerns? YES. Alternative 2B-2 only met 20% of the purposes and needs of the study three years ago and now it is the "preferred alternative" for a $90+ million dollar project.

Alternatives 2B and 2B-2 use the same "4.2 mi. of Route 9 without additional improvement" per the DEIS. They are almost exactly the same route with the same I-395 starting point and the same connection point on Route 9. 2B-2 IS 2B.

One of the most interesting statements in the 300+ pages of the Draft Environmental Impact Statement is found on page s19: "However, future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project."[3] How can the success of this project be based on the hope that a community will stagnate?

What you won't find in the 300+ page DEIS document is any real concern for the human element. Humans can be relocated, but you certainly can't disturb a couple of frogs and salamanders in a vernal pool that may only exist for a few months and not return again for a year or so if ever. Many of us are well within 100' or less of the 200' right-of-way, many people have their properties cut in half and at least 8 families will watch as the bulldozers raze their homes. How can an agency look an 82 year old man in the face knowing that he will lose his home and the property that he has worked all his life and say this is the right proposal for this connector? Where's a balance between environment and man?

How did 2B-2 become the preferred alternative? After 10 years of work and expenditure in excess of $1.7 million dollars—the parameters of the study were changed in September of 2010. Work by the Public Advisory Committee and others over a good part of the previous decade was disregarded and the PAC was not consulted about any of these changes.

The E/W private highway feasibility report will be completed by 1/15/2013. "Such a route would remove nearly all of the existing traffic off of Route 9, as well as cut projected future traffic on Route 1 by roughly 2,300 vehicles per day below current levels."[4] Where's the traffic issue on Route 9 if nearly all the existing traffic is removed by an E/W highway?

23-1

The Study Group, under the management of the MaineDOT/FHWA, has managed to spend in excess of $1.7 million dollars to reach a conclusion that an alternative thrown out two times ten years ago by the same Study Group now "best satisfies the study purpose and needs" for this connector. Really?

[1] http://www.i395-rt9-study.com/Pubs/Alts%20Tech%20Memo.pdf page ii and Summary page 5

[2] http://www.i395-rt9-study.com/Pubs/PAC041509_handouts.pdf MDOT Purpose and Needs Matrix

[3] http://www.i395-rt9-study.com/DEIS/00Sum.pdf DEIS Summary

[4] http://www.maine.gov/mdot/1999eastwesthwystudy/reportlinks.htm MDOT 1999 Executive Summary

DEIS Comment/Questions # 36 Submitted 5/14/2012
Copy of Letter to Selected State and Federal Officials:

Larry Adams
17 Woodridge Road
Brewer, Maine 04412

bgradams@roadrunner.com

The Honorable Commissioner David Bernhardt, P.E.
Commissioner Maine Department of Transportation
Child Street
16 State House Station
Augusta, ME 04333-0016
May 14, 2012

Dear Commissioner Bernhardt:

The I-395/Route 9 Transportation Study is now in the twelfth year with expenditures exceeding $1.7 million dollars. Alternative 3EIK-2 was the MaineDOT/FHWA preferred route for some six to seven years as far back as May of 2003 and was still the MaineDOT/FHWA preferred route as of April 15, 2009. Alternative 2B was removed from further consideration twice before the end of 2002 only to be brought up again in September of 2003 as the 2B-2 alternative when we all thought the study was near completion. This 2B-2 alternative used the same identical segment of Route 9 a little differently than 2B; 2B-2 required a rebuild of or improvements to Route 9 while 2B used the existing Route 9. This connector was last discussed in public on April 15, 2009; alternative 2B-2 at that time, as presented on an official MaineDOT Purpose and Needs Matrix handout, only met 20% of the Purposes and Needs of the Study.

Fast forward to the present and we find: the 3EIK-2 alternative and all other alternatives that met the Purposes and Needs of the Study were removed from further consideration in September of 2010; Route 9 will not be rebuilt or improved; 2B-2 is now the preferred alternative; 2B and 2B-2 both using the same 4.1 mile segment of an unimproved Route 9—turning 2B-2 into 2B all over again, a route removed twice before because: "Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards." None of the three remaining alternatives, including the preferred alternative 2B-2, meet the original Purposes and Needs of the Study and the intent of the project. The Route 9 connection point for all three remaining alternatives, including 2B-2, is now 4.5 miles west of where the connection point of more than 70 alternatives previously studied was sited in order to meet the original System Linkage Need criteria—a connection point on Route 9 east of Route 46 in the vicinity of the Eddington/Clifton town line.

When I discovered this news on December 15, 2011, purely by accident as it had not been made public, I immediately emailed the City of Brewer and the MaineDOT Project Manager requesting an update as I was completely floored that the project had turned 180 degrees, removing the only four proposals from further consideration, including the 3EIK-2/preferred alternative, that fully met the Purposes and Needs of this Study, leaving just two routes that only met 20% of the original criteria, a similar third route was added.

I had earlier emailed the Project Manager on March 2, 2011 requesting a project update and was given none, only talk of future meetings when in fact this project was turned completely around in September of 2010. Why the manager did not give me the news that I now lived on the preferred route when that news was available for over five months is hard for me to understand or accept. An impacted private citizen was denied information from a public servant who manages the project—does anyone not see a problem with that? I find that action deplorable and has cost us precious

time needed to voice our opinions. An investigation of these unethical actions within the MaineDOT by a public servant, a manager no less, should be initiated—omission of facts is still a lie. That email is included as DEIS Comment/Question # 6.

So what we have left are three alternatives, none of which meet the original Purposes and Needs of the Study and the original intent of the project. Our screams of foul have been silenced by MaineDOT talking points of too many vernal pools on 3EIK-2; decreased traffic numbers; downgraded road design; the private E/W highway doesn't go there; rightsizing etc… All decisions, since April 15, 2009 were made without scrutiny of the public and their elected officials—without knowledge and concurrence of any of the real stakeholders. The City of Brewer and the Town of Eddington have removed their support of the connector project by resolution—both resolutions stating support for the No-build option.

24-1

The MaineDOT has accomplished some very good projects within our community and we appreciate the support that they have provided to the City of Brewer in the past; however the decision by this Study Group, of which the MaineDOT co-manages, is flawed. It does not have public support as was evident at the recent public hearing and does not meet the original Purposes and Needs of the Study and the intent of the project. The MaineDOT has failed miserably to keep the public and their governing bodies included in the decision-making-process, a process defined in the MaineDOT's own Public Involvement Plan document, the basis of DEIS Comment/Question # 30. A decision of this magnitude affecting multiple communities should have had the City Council of Brewer involved, but they were not then, or now, included by the MaineDOT in the decision-making process; the MaineDOT is not listening to any of us—private citizen or elected officials.

The short version of this story is best summed up in the attached statement presented to the Bangor Daily News at the Public Hearing—I have also attached my remaining DEIS Comments/Questions that I have provided to the MaineDOT, FHWA and the ACOE for inclusion in the Environmental Impact Statement—that's the long story and includes information with references that contradicts the decisions that the Study Group has made since April of 2009.

I remain frustrated as I had hoped to get some real answers, not just MaineDOT talking points, from these previously submitted comments/questions during the May 2nd Public Hearing, but the Study Group would not answer any question that night or respond in any way following their opening statements. Ground rules were not published before the Public Hearing; I had no idea that this would be a "listening only" format; the fact that the Study Group did not have to answer to comments and questions from the public during a recorded Public Hearing seems to favor the Study Group and is counterproductive to the process.

I submitted 32 of a total of 35 of my comments/questions within the two week period before the hearing as a courtesy to the Study Group so they could prepare their answers. I had hoped to initiate a public debate on why and how 2B-2 became a viable alternative when ten years previously the exact same route (2B) was removed from further consideration (twice by the end of 2002) because of "traffic congestion, conflicting vehicle movements, safety concerns and hazards". When I asked at least three times when I could expect answers to these submitted comments/questions, I was told by the moderator, not by either Mr. Charette or Mr. Hasselmann in attendance who co-lead this Study Group, but Mr. Plumpton a paid private consultant, my questions would be answered in the Final Environmental Impact Statement—published in six to eight months. I was not the only one with questions at the Public Hearing; the Town of Eddington presented 27 questions alone and many more were presented by several other speakers in multiple statements. None of these questions were given any response that night from the Study Group. Apparently the Study Group and the Study Group only will now determine what is substantive for inclusion in the FEIS, making our comments and opinions moot at their will. That is why I feel it is important to get my comments/questions to those outside of the Study Group; and others may do the same. If you wonder why I distrust this process and have my doubts about how this will be handled, please read again comment/question# 6. May I remind everyone that these same Study Group members, with the exception of Mr. Plumpton, are public servants who by their own admission and several written apology statements by the MaineDOT have failed to keep the public advised of all changes to this

project from April of 2009 to January of 2012? MaineDOT officials have not, however, apologized for excluding the public and their elected officials in the decision-making process and have made no attempt to remedy the problem by engaging my elected officials of the City of Brewer in the selection of this connector. Why aren't they listening?

The Public Hearing transcript from May 2nd: http://www.i395-rt9-study.com/Pubs/PublicHearing2012.pdf
Ms. Gretchen Heldmann's statement from page 29 to page 43 is an intelligent fact-based detailed analysis describing the failures of this Study. Will they listen now?

Study Group members now go back to their home offices and mull over these comments outside of public scrutiny with no transparency. The MaineDOT/FHWA and the MaineDOT/FHWA alone will determine what is "substantive" to be included in the FEIS. Who will hold this Study Group accountable? It certainly can't be the Study Group itself.

Making Cost and/or Environmental comparisons of alternative 2B/2B-2 to 3EIK-2 or any of the 70+ alternatives already studied that does not utilize an equal segment of the existing Route 9 is invalid—it is comparing apples and oranges. When it was important for the Study Group to include the impacts of the 4.1 mile segment of Route 9 to make 2B-2 appear to be a viable option—the data from Route 9 was included; now that it is important for the Study Group to show the lowest cost and the least environmental impact of alternative 2B-2—the data is not included from the 4.1 mile segment of Route 9. You cannot separate alternative 2B-2 from the existing 4.1 mile segment of Route 9. How fair is that?

24-2

"It was selected because it has the least environmental impact and lowest estimated cost, by far." (March 2012 MaineDOT Mailer) That statement, MaineDOT's latest talking point, is incorrect as: NO-BUILD has the least environmental impact and lowest estimated cost, by far.

24-3

The State of Maine requires a 250' buffer (4.51 acres) around a significant vernal pool; the ACOE requires a 750' buffer (40.56 acres) around any vernal pool—whether significant or not. And in fact, the New England District of the ACOE differs than all other ACOE districts in the US in the way they view vernal pools. How can you buffer a non-significant vernal pool? If it is non-significant, it is just a puddle. Isn't it ridiculous that a property owner, like many of us living in my neighborhood, can be 80' from the right-of-way of the preferred alternative and not be considered directly or even indirectly impacted—yet frogs and salamanders and mosquitos are guaranteed to be no closer than 750' of the proposed roadway? AND—where is the proof? Show me the vernal pools on the State of Maine GIS maps—bet you won't find them—they haven't been registered—they don't exist. These State and Federal agencies will say that it is the landowner's responsibility to register them—vernal pools were so numerous around 3EIK-2/the preferred route that—3EIK-2 was removed from further consideration—placing 2B-2 as the new preferred alternative even though 2B-2 doesn't meet the original Purposes and Needs of the Study. Shouldn't these same State and Federal agencies have the responsibility to make the sure the landowners register the vernal pools that State and Federal agencies told us they found? Show me the proof these vernal pools really exist, not a bunch of scribbled notes—I've been lied to before—read question #6 again.

24-4

24-5

DEIS Comment/Question #35. Submitted by Larry Adams, a Brewer resident, on May 4, 2012

Copy of statement released to the Bangor Daily News on 5/02/2012:

The I-395/Route 9 Study Group is disregarding the original criteria and intent of the project: Alternative 2B was removed from further consideration not only once—but twice before the end of 2002. The reasons were clear: "This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."[1]

Duplication of material provided on page 149

In the same document, the original system linkage need was further defined: "To meet the need of improved regional system linkage while minimizing impacts to people, it was determined that an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46."[1] That paragraph continued to give a glimpse of what may be expected if an alternative does not meet the original system linkage need parameter: "Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46."[1]

MDOT's Purpose and Needs Matrix[2], dated April 15, 2009, contained no engineering data that could be manipulated or misunderstood by anyone—just simple yes and no answers. Did 2B-2 meet the following criteria: Study Purpose? NO; ACOE Purpose? NO; System Linkage Need? NO; Traffic Congestion Need? NO; Safety Concerns? YES. Alternative 2B-2 only met 20% of the purposes and needs of the study three years ago and now it is the "preferred alternative" for a $90+ million dollar project.

Alternatives 2B and 2B-2 use the same "4.2 mi. of Route 9 without additional improvement" per the DEIS. They are almost exactly the same route with the same I-395 starting point and the same connection point on Route 9. 2B-2 IS 2B.

One of the most interesting statements in the 300+ pages of the Draft Environmental Impact Statement is found on page s19: "However, future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project."[3] How can the success of this project be based on the hope that a community will stagnate?

What you won't find in the 300+ page DEIS document is any real concern for the human element. Humans can be relocated, but you certainly can't disturb a couple of frogs and salamanders in a vernal pool that may only exist for a few months and not return again for a year or so if ever. Many of us are well within 100' or less of the 200' right-of-way, many people have their properties cut in half and at least 8 families will watch as the bulldozers raze their homes. How can an agency look an 82 year old man in the face knowing that he will lose his home and the property that he has worked all his life and say this is the right proposal for this connector? Where's a balance between environment and man?

Duplication of material provided on page 149

How did 2B-2 become the preferred alternative? After 10 years of work and expenditure in excess of $1.7 million dollars—the parameters of the study were changed in September of 2010. Work by the Public Advisory Committee and others over a good part of the previous decade was disregarded and the PAC was not consulted about any of these changes.

The E/W private highway feasibility report will be completed by 1/15/2013. "Such a route would remove nearly all of the existing traffic off of Route 9, as well as cut projected future traffic on Route 1 by roughly 2,300 vehicles per day below current levels."[4] Where's the traffic issue on Route 9 if nearly all the existing traffic is removed by an E/W highway?

The Study Group, under the management of the MaineDOT/FHWA, has managed to spend in excess of $1.7 million dollars to reach a conclusion that an alternative thrown out two times ten years ago by the same Study Group now "best satisfies the study purpose and needs" for this connector. Really?

[1] http://www.i395-rt9-study.com/Pubs/Alts%20Tech%20Memo.pdf (page ii and Summary page 5)
[2] http://www.i395-rt9-study.com/Pubs/PAC041509_ handouts.pdf (MDOT Purpose and Needs Matrix)
[3] http://www.i395-rt9-study.com/DEIS/00Sum.pdf (DEIS Summary)
[4] http://www.maine.gov/mdot/1999eastwesthwystudy/reportlinks.htm (MDOT 1999 Executive Summary)

- The time to get our questions answered is now, not in six to eight months.
- The time to hold this Study Group accountable to the private citizen and their elected officials is now.
- The time to throw a flag on this study and if a connector is really needed take this back to the public arena and have the real stakeholders get a voice in the decision-making process of an alternative that will meet the original Purposes and Needs and the original intent of this project is now.
- At the end of the day, it is the people of these three impacted communities that will have to live with the decisions made by this Study Group.

Thank you for your consideration in this matter,

Larry Adams
17 Woodridge Road
Brewer, Maine 04412

bgradams@roadrunner.com

cc: State Representative Michael Celli
State Senator Richard Rosen
State Senator Ronald Collins (Chair Joint Standing Transportation Committee)
State Representative Richard Cebra (Chair Joint Standing Transportation Committee)
State Representative Edward Mazurek (Ranking Minority Member Joint Standing Transportation Committee)
State Department of Transportation Commissioner David Bernhardt
US Congressman Michael Michaud
US Senator Olympia Snowe
US Senator Susan Collins
US Department of Transportation Office of Inspector General

DEIS Comment/Questions # 37 Submitted 5/14/2012
Copy of Letter to US DOT Inspector General:

Larry Adams
17 Woodridge Road
Brewer, Maine 04412

bgradams@roadrunner.com

Office of Inspector General
1200 New Jersey Avenue S.E.
7th Floor
Washington, DC 20590
May 14, 2012

To whom it may concern:

The MaineDOT/FHWA I-395/Route 9 Transportation Study within the Maine communities of Brewer, Holden and Eddington is now in the twelfth year with expenditures exceeding $1.7 million dollars. The Draft Environmental Impact Statement has been published and is currently out for comment until May 15th; we are told that the final selection is six to eight months in the future.

There is considerable frustration in the impacted communities on the outcome of this Study:

- How was it possible to change this Study so drastically without our knowledge?
  - How can this Study Group dismiss the original Purposes and Needs and the original intent of the Study?
  - How can a route become the preferred route in 2012 when it is identical to a route removed twice ten years ago because of traffic and safety concerns?
  - How is it possible that a Study can take twelve years to complete?
- Was this just a source of money to keep people busy?
  - Where did the money go?
- How is it possible to keep private citizens and their elected officials completely outside of the decision-making process?
  - Where was the transparency?
  - Eight of the twelve years of this Study has been outside of public scrutiny.
  - Was there no transparency for a reason?
- How can a vernal pool with a couple of frogs and salamanders change the outcome of this project?
  - How can the EPA and the ACOE not feel the same concerns about the human environment as they do for frogs and salamanders living in a soon-to-be-dried-out skidder track?
- The questions continue and can best be understood by reading my 35 attached DEIS Comments/Questions at the end of this letter.

I live in a quiet rural residential neighborhood approximately 80' from the right-of-way of 2B-2/the preferred alternative; I am neither directly nor indirectly impacted according to current State and Federal regulations—even though I will suffer a serious devaluation in my property and a decreased quality of life. Frogs and salamanders have unalienable rights—I apparently have none—that is outrageous to one that has gone to war for this country. Never would I have ever thought that my quality of life in my senior years would depend on where a couple of frogs, in a stagnant puddle of water, would call home. I wonder how many ACOE and EPA officials, protecting these valuable

mosquito breeding puddles, have fought for their country as hard as they seem to be fighting to save the rights of a few frogs and salamanders.

- Where is the same concern from these State and Federal agencies for the human element—real live people?

I am writing because there are Federal funds involved in the Study; there are multiple Federal agencies involved in the Study, including the FHWA as a co-lead of the Study; the ACOE and the EPA that played an important part in steering this study; and 80% Federal matching funds for an estimated $90 million dollar construction project will be requested by the end of the year if people don't start listening and become aware of the deficiencies of this connector selection.

This is not a letter of accusation; I simply present facts that contradict the decision-making process of this study. I disagree with the decisions of the Study Group and see their decision as a complete failure to produce a product as they were tasked to do over twelve years ago and a failure to operate in a professional, above board and fully transparent manner keeping the public fully informed and engaged in the whole process. The time for consensus is during the process, not after the Draft Environmental Impact Statement is published. The consensus during the May 2nd Public Hearing was that of the 20 speakers formally addressing the Study Group – there was no one that spoke in favor of the panel's decision, most addressed safety concerns with the Study Group's selection of any of the remaining three alternatives.

Even after a highly charged hearing, we still believe that our concerns are not being listened to and that is with all levels of Legislative officials engaged in the process. The MaineDOT/FHWA seems to be hell bent to push forward, no matter what the concerns, with their selection to end this Study.

Alternative 3EIK-2 was the MDOT/FHWA preferred route for almost seven years as far back as May of 2003. Alternative 2B was removed from further consideration twice before the end of 2002 only to be brought up again in September of 2003 as the 2B-2 alternative when we all thought the study was near completion. This new 2B-2 alternative used the same identical segment of Route 9 a little differently than 2B; 2B-2 required a rebuild of or improvements to Route 9 while 2B used the existing Route 9. At the last time this connector was discussed in public, 4/15/2009, the 2B-2 alternative only met 20% of the Purposes and Needs of the Study. At the end of the Public Advisory Committee meeting of 4/15/2009, we all left with the knowledge that the 3EIK-2 route was the preferred route; 3EIK-2 was practicable and 3EIK-2 meet all the Purposes and Needs of the Study.

The 3EIK-2/preferred alternative was removed from further consideration along with all other routes that met the Purposes and Needs of the Study in September of 2010; Route 9 will not be rebuilt or improved, 2B-2 is now the preferred alternative, 2B and 2B-2 both use the same 4.1 mile segment of an unimproved Route 9—turning 2B-2 into 2B all over again, a route removed twice before because: "Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."

None of the three remaining alternatives, including 2B-2, meet the original Purposes and Needs of the Study and the intent of the project. The connection point for all three remaining alternatives, including 2B-2, is now 4.5 miles west of where the connection point of more than 70 alternatives previously studied was sited in order to meet the System Linkage Need criteria—a connection point on Route 9 east of Route 46 in the vicinity of the Eddington/Clifton town line.

When I discovered this news on 12/15/2011, purely by accident as the news had not been provided to the general public, I immediately emailed the City of Brewer and the Project Manager requesting an update as I was completely floored that the project had turned 180 degrees, removing the only four proposals from further consideration, including the 3EIK-2/preferred alternative, that fully met the Purposes and Needs of this Study, leaving just two routes that only met 20% of the original criteria, a similar third route was added. No one in my community was aware of any of these changes to the Study.

So what we have left in the Draft Environmental Impact Statement are three alternatives, none of which meet the original Purposes and Needs of the Study and the original intent of the project. It is fact that there are no alternatives in the DEIS that meet the original Purposes and Needs of this project. Our screams of foul have been silenced by MDOT talking points of new roadway downgraded design; decreased traffic numbers; too many vernal pools on 3EIK-2 alternative; the private E/W highway proposal doesn't go there; rightsizing etc… We feel railroaded by a process that should have been fair to all, open and fully transparent to the private citizen and their elected officials.

All decisions, since 4/15/2009, were made without scrutiny of the public and their governing bodies—without knowledge and concurrence of any of the real stakeholders.

The City of Brewer and the Town of Eddington have removed their support of the project by resolution—both resolutions stating support for the No-build option.

I have attached my DEIS Comments/Questions that I have already provided to the MDOT, FHWA and the ACOE for inclusion in the Final Environmental Impact Statement—that's the long story and includes a lot of information that contradicts the decisions that have been made to date.

I had hoped that some of those questions, along with the 27 questions submitted by the Town of Eddington that night, would be answered at the May 2nd Public Hearing, but the Study Group would not address the public except for opening statements. We are told that the questions will be answered in the FEIS sometime six to eight months away from now. We have also been told that only substantive comments or questions will be answered. There is no accountability in this process; the Study Group can determine what comments or questions they seem fit to answer making all others moot; and we feel railroaded by these agencies and the process. They are the Judge, Jury and the Executioner; no scrutiny; no accountability.

The MaineDOT and the FHWA are not listening to the private citizen or their elected officials. We are at a loss as how this can be acceptable in a free society.

It is time to halt this study and if a connector is really needed take this back to the public arena and have the stakeholders get a voice in the decision-making process.

Key Points to Consider:

- The State of Maine requires a 250' buffer (4.51 acres) around a significant vernal pool; the ACOE requires a 750' buffer (40.56 acres) around any vernal pool—whether significant or not. And in fact, the New England District of the ACOE differs than all other ACOE districts in the US in the way they view vernal pools. How can you buffer a non-significant vernal pool? If it is non-significant, it is just a puddle. Isn't it ridiculous that a property owner, like many of us living in my neighborhood, can be 80' from the right-of-way of the preferred alternative and not be considered directly or even indirectly impacted—yet frogs and salamanders and mosquitos are guaranteed to be no closer than 750' of the proposed roadway? AND—where is the proof? Show me the vernal pools on the State of Maine GIS maps—bet you won't find them—they haven't been registered—they don't exist. These State and Federal agencies will say that it is the landowner's responsibility to register them—vernal pools were so numerous around 3EIK-2/the preferred route that—3EIK-2 was removed from further consideration—placing 2B-2 as the new preferred alternative even though 2B-2 doesn't meet the original Purposes and Needs of the Study.
    - Shouldn't these same State and Federal agencies have the responsibility to make the sure the landowners register the vernal pools that State and Federal agencies told us they found?

- Shouldn't State and Federal agencies operate under similar regulations?
- Shouldn't the ACOE operate under the same ACOE regulations throughout the US?
- Why does the New England District of the ACOE treat vernal pools so much differently in the New England states as anywhere else in the US?
- How can the ACOE treat all vernal pools as significant (containing the specific amount of frogs and salamanders) whether they are significant or non-significant?

25-1

- The FHWA apparently has no problem with the new redesign of this connector. This downgraded connector design, occurring sometime in 2011 and first addressed at the October 2011 Interagency Meeting, does not include a future upgrade to a four lane divided highway as was the original intent for the previous decade of the study. This connector will be constructed as a two lane undivided roadway for its life expectancy of 2035; subject to often fatal head-on crashes on these type of two land undivided highways. Fatalities from head-on crashes already happen all too often on this stretch of Route 9.
  - Why is the FHWA, as co-lead of this Study, promoting this connector design and removing any chance of an upgrade when safety or increased traffic becomes an issue.
  - Why in the year 2012 are any new road surfaces being suggested by the FHWA, especially one connecting to an interstate, as a two lane undivided roadway? Safety of this proposed connector alternative has been brought up to the MaineDOT and the FHWA—so far nobody seems to be listening. This shortsighted removal of the upgrade option, as future traffic and safety concerns demand, was based solely on cost by removing the requirement to purchase a larger initial right-of-way. MaineDOT officials estimated a $1 million dollars cost for the larger right-of-way purchase; in an overall $90+ million dollar project, that is only 1.11% of the total price of the project.
  - How much would you pay for safety?
- Alternative 2B was removed from further consideration not only once—but twice before the end of 2002. The reasons were clear: "This alternative would not be practicable because it would fail to meet the system linkage need, and would fail to adequately address the traffic congestion needs in the study area. Traffic congestion and conflicting vehicle movements on this section of Route 9 would substantially increase the potential for new safety concerns and hazards."[1]
  - SAFETY CONCERNS?
  - SAFETY HAZARDS?
  - CONFLICTING VEHICLE MOVEMENTS?
  - TRAFFIC CONGESTION?
- In the same document, the original system linkage need was further defined: "To meet the need of improved regional system linkage while minimizing impacts to people, it was determined that an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46."[1]

- The connection point for all three remaining alternatives is now 4.5 miles west of the connection point of more than 70 alternatives previously studied; sited in order to meet the original System Linkage Need criteria—a connection point on Route 9 east of Route 46 in the vicinity of the Eddington/Clifton town line.

- That paragraph continued to give a glimpse of what may be expected if an alternative does not meet the original system linkage need parameter: "Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not be practicable because that would not provide a substantial improvement in regional mobility and connectivity and would negatively affect people living along Route 9 in the study area. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46."[1]

  - How can the MaineDOT/FHWA negatively affect and severely impact local communities with intent?

- MDOT's Purpose and Needs Matrix[2], dated April 15, 2009, contained no engineering data that could be manipulated or misunderstood by anyone—just simple yes and no answers. Did 2B-2 meet the following criteria: Study Purpose? NO; ACOE Purpose? NO; System Linkage Need? NO; Traffic Congestion Need? NO; Safety Concerns? YES. Alternative 2B-2 only met 20% of the purposes and needs of the study three years ago and now it is the "preferred alternative" for a $90+ million dollar project.

- Alternatives 2B and 2B-2 use the same "4.2 mi. of Route 9 without additional improvement" per the DEIS. They are almost exactly the same route with the same I-395 starting point and the same connection point on Route 9. 2B-2 IS 2B.

- One of the most interesting statements in the 300+ pages of the Draft Environmental Impact Statement is found on page s19: "However, future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project."[3]

  - How can the success of a $90 million dollar project be based on the hope that a community will stagnate or fail?

  - Safety is the prime benefit to this project—how soon will safety be compromised after fronting $90 million dollars for construction—if Eddington develops?

- Mission Statement of the MaineDOT: "Responsibly provide a safe, efficient, and reliable transportation system that supports economic opportunity and quality of life."

- The mission of the United States Department of Transportation is to: "Serve the United States by ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future."

  - When the word SAFE is in your mission statement shouldn't you operate at a higher standard?

  - To continue to promote a preferred alternative hanging so precipitously on whether a town develops or not is illogical and may jeopardize Safety.

  - To not recognize our safety concerns is irresponsible. We have these State and Federal agencies to make sure that our highways are Safe—there should be no Safety concerns raised on a new project—that is their job as a public servant.

- What you won't find in the 300+ page DEIS document is any real concern for the human element. Humans can be relocated, but you certainly can't disturb a couple of frogs and salamanders in a vernal pool that may only exist for a few months and not return again for a year or so if ever. Many of us are well within 100' or less of the 200' right-of-way, many people have their properties cut in half and at least 8 families will watch as the bulldozers raze their homes. How can an agency look an 82 year old man in the face knowing that he will lose his home and the property that he has worked all his life and say this is the right proposal for this connector?
  - Where's a balance between environment and man?

- How did 2B-2 become the preferred alternative? After 10 years of work and expenditure in excess of $1.7 million dollars—the parameters of the study were changed in September of 2010. Work by the Public Advisory Committee and others over a good part of the previous decade was disregarded and the PAC was not consulted about any of these changes.

- The MaineDOT has operated outside of their own MaineDOT regulations concerning Public Involvement. They have failed to keep the public and their local governing bodies involved in this Study since 4/15/2009 and none of the decision-making involved anyone, including the elected local officials, none of the real stakeholders in this Study.

  - The FHWA, as a co-lead of this Study, is complicit by allowing this to occur outside of any public scrutiny.

- The E/W private highway feasibility report will be completed by 1/15/2013. "Such a route would remove nearly all of the existing traffic off of Route 9, as well as cut projected future traffic on Route 1 by roughly 2,300 vehicles per day below current levels."[4] Where's the traffic issue on Route 9 if nearly all the existing traffic is removed by an E/W highway?

- The Study Group, under the management of the MaineDOT/FHWA, has managed to spend in excess of $1.7 million dollars to reach a conclusion that an alternative thrown out two times ten years ago by the same Study Group now "best satisfies the study purpose and needs" for this connector.

1 http://www.i395-rt9-study.com/Pubs/Alts%20Tech%20Memo.pdf page ii and Summary page 5
2 http://www.i395-rt9-study.com/Pubs/PAC041509_handouts.pdf MDOT Purpose and Needs Matrix
3 http://www.i395-rt9-study.com/DEIS/00Sum.pdf DEIS Summary
4 http://www.maine.gov/mdot/1999eastwesthwystudy/reportlinks.htm MDOT 1999 Executive Summary

- It is time that this Study is halted and take the decision-making back to the real stakeholders within the three communities most impacted by this connector, the private citizen and their elected officials.

- It is time that the FHWA remove support from this Study.

  - There should be no questions of safety with a new roadway connecting to an Interstate Highway.

  - Safety should not be compromised merely by cost.

- It is time that the MaineDOT and the FHWA apologize to the public of these three impacted communities for keeping this issue over our heads for 12 years.

- It is time to find out where the $1.7+ million dollars was spent.

Thank you for your consideration in this matter,

Larry Adams
17 Woodridge Road
Brewer, Maine 04412

bgradams@roadrunner.com

cc: US Congressman Michael Michaud
US Senator Olympia Snowe
US Senator Susan Collins

From: Larry Adams [mailto:bgradams@roadrunner.com]
Sent: Friday, April 06, 2012 10:19 AM
To: Charette, Russ; Mark.Hasselmann@dot.gov
Cc: sbost@brewerme.org
Subject: Missing PAC Meeting Information

Just wanted to let you know, it appears that there is no longer any information available pertaining to the last two PAC meetings on the study website under the Public Advisory Committee (PAC) Meetings section, specifically November 19, 2008 and April 15, 2009.

Larry Adams
Brewer

From: kenneth.arbo@yahoo.com [mailto:kenneth.arbo@yahoo.com]
Sent: Sunday, May 06, 2012 11:45 AM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: i-395/route 9 connector no build option Box A: #!&576
E-Mail: kenneth.arbo@yahoo.com
Name: kenneth arbo
Address: 44 lambert rd
Telephone Number:
Date: 05/06/2012

From: gmatrader@hotmail.com [mailto:gmatrader@hotmail.com]
Sent: Friday, May 11, 2012 3:18 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I am in favor of the 2B-2 preferred alternative and agree it has the least net adverse impacts, and the impoved transportation corridor will improve economic conditions in the area and in the state.
Box A: #!&576
E-Mail: gmatrader@hotmail.com
Name: Mike Atherton
Address: 53 Atherton Way, Bucksport, Maine 04416 Telephone Number:

Date: 05/11/2012

I-395/Route 9 Transportation Study

Comment Form

(comment form continued overleaf)

Name: MICHAEL H. AYER

Address: 4 EDGE OF TOWN RD. (RT. 46 HOLDEN-EDDINGTON TOWN LINE) HOLDEN MAIN. P.O. BOX 1190 HOLDEN, 04429 - MAILING.

Phone No. (in case we need to ask for clarification):

Email address (if you would like to receive an occasional newsletter on the study): DIZZY62247@AOL.COM.

HAVING GROWN UP ON RT. 46 I HAVE WATCHED A QUIET COUNTRY RD. EVOLVE INTO A MAJOR THROUGHFARE FOR THE MARITIMES TO POINTS SOUTH. I KNOW I DON'T HAVE TO TELL YOU THE ROAD WAS NEVER MENT TO HANDLE THAT TYPE OF TRAFFIC. I WON'T RAMBLE ON ABOUT LOAD SHIFTS, ACCIDENTS, NOISE, ROAD DESTRUCTION ETC. I KNOW YOU KNOW!

"I AM SO IN FAVOR OF THE NEW CONNECTOR ROUTE"

I WISH YOU LUCK WITH ALL THE HURDLE'S AHEAD (NIMBYS - VERNAL POOLS ETC.).

RESPECTFULLY,

M. H. Ayer

Mail your comments to:

Russell Charette	Mark Hassellmann
MaineDOT	FHWA Maine Division
16 State House Station	Edmund S. Muskie Federal Building
Augusta, ME 04333-001640	Western Avenue, Room 614
	Augusta, Maine 04330

www.i395-rt9-study.com

From: Paul Brody [mailto:brody.paul7@gmail.com]
Sent: Tuesday, May 01, 2012 9:38 PM
To: Mark.Hasselmann@dot.gov; Charette, Russ
Cc: Ron Brody; Mom
Subject: I395 Rt9 Study

Regarding the current EIS and upcoming public hearing, please consider my comments, I look forward to your response.

I am a land owner that will be affected by 5b2b-2 which would abut my property. My parents will be affected by 2B-2 which will nearly abut theirs. We have both cleared our land and built most or homes ourselves. We have lived in Brewer since the early 70's and strongly oppose any route through Brewer that significantly impacts the current condition, natural or otherwise. We value the lifestyle we have above most all else, when we go to sleep at night, grill on the patio, play with our children, etc, we enjoy doing in relative piece and quite. The noise generated by this project will likely severely impact that quality of life.

While I don't have specific arguable reasons against this development other than above, I do have the following observation to make about the process. I have been active in the permitting and design of development in New England for the past 15 years, so I have a fairly good understanding of it.

From your latest newsletter;

The National Environmental Policy Act requires public agencies to consider the potential impacts of proposed federal actions (such as a major new highway segment that could be funded with federal dollars) on the natural, social, economic, and cultural environment, and to disclose those considerations in a public process and document.

Of particular note to me is the 1:3 ratio between natural (1) and social, economic, and cultural environment (3) impact review agencies. It is then odd as to why the review agencies are made up almost entirely of those concerned with the impact (or perceived impact) to "natural" areas and species. In fact, of the 12 agencies listed in the newsletter, I count 9 that are tasked with understanding and protecting natural systems etc, 1 for cultural / historic, and 2 that I classify as economic and perhaps social.

How then is the directive of the NEPA successfully met? Obviously this is a somewhat pointless question as I know no doubt the answer will be ambiguous and nearly impossible to detail. The reality is that without significant political and financial pressure, the project will move forward as long as the prescribed permitting requirements are met. The real challenge then is to limit those requirements in a way that respects the landscape and all of the natural inhabitants including us. **26-1**

Agencies Participating in this Study

- Maine Department of Transportation
- Federal Highway Administration
- Maine Department of Environmental Protection
- Maine Department of Inland Fisheries and

  Wildlife

- Maine Department of Marine Resources
- Maine Department of Conservation
- Maine Historic Preservation Commission
- Maine Natural Areas Program
- National Marine Fisheries Service
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish & Wildlife Service

Please consider our quality of life and the investments made in time and money in our homes when working in your decision making capacity of this project.

Sincerely,

Paul Brody

From: Richard Bronson [richard.b.bronson@hotmail.com]
To: carol woodcock; andy hamilton; tim woodcock; steve bost; mark.hasselman@fhwa.dot.gov; ken.sweeney@maine.gov; Plumpton, William M.; larry adams; jim ring

4/13
Carol,

Attached is a description of the I-395 connector alternative I have imagined. I hope some people will open mindedly take a look.

Rick Bronson

4/11/2012

ANOTHER CONNECTOR SUGGESTION; I-395 to Maine Route 9

As most of us know the proposed highway to connect the east end of Maine I-395 to the better portion of Maine Route 9 in Clifton has taken much time and become very complicated and controversial.

I was a member of the original PAC beginning something more than 10 years ago. From that effort I learned a number of facts regarding this connection that remain true today.

1) Getting from I-95 and Brewer to Route 9 is slow, dangerous and frustrating. The two most likely existing ways to accomplish that travel are either North Main Street in Brewer or Maine Route 46 in Holden and Eddington. Both of those routes feature old roads, many road side homes and driveways, school busses and all the other things that cause inefficient movement. They also are both prone to head on crashes as traffic tries to move as if those roads can be high speed highways.

2) The easiest thing for the PAC to agree on was the goal of the project. That was to move traffic from I-395 and Brewer to Route 9 and in the opposite direction. That goal included making a project terminus east of the intersection of current Maine Route 9 and Maine Route 46.

I submit that the project as now proposed fails on both above counts.

We could say that if a private east / west highway is constructed that this project will have no good purpose. However that would not be true. Even with the proposed private east / west a number of the traffic streams that use today's Route 9 will not get the to east / west that is proposed north of Calais. A number of those traffic streams are by themselves rather small; however, combined together they are too much for either the existing Route 46 or North Main Street in Brewer. Those traffic streams include local commuter traffic to and from Bangor – Brewer in and out of Clifton and Amherst. Also traffic that finds it easier to get to coastal places in Hancock and Washington County by

travelling on Route 9 and the connecting routes of Maine 181 and 179 (Ellsworth), 193 (Cherryfield), 192 (Machias), and 191 (Eastport).

Anecdotally, a few times each summer I use Maine 179 and 200 to get from my home in Bangor to our summer place in Sullivan; especially on Sundays when traffic at East Holden can and has backed up to the Lucerne Inn waiting for the one traffic light at 1A and 46. Gene Richardson, the operator of the general aviation terminal at Bangor International Airport has a seasonal home in Eastport. He tells me that when he does not fly from Bangor to Eastport that he drives on Route 9 as opposed to US 1A and 1; because it is quicker. Similarly Miles Theeman of Affiliated Health Care, residing in Bangor but with family and a summer home in Lubec tells me that he either uses 1, 1A & the Tunk Lake Road through Hancock and Washington County or, as often as not uses Route 9 and 192. Dr. Joe Benoit living in Veazie with a year round weekend home at Machiasport tells me he always travels by Route 9 and not 1A & 1 to get to Washington County.

Also, the log carrying trucks that come out of places along Route 9 will use Route 9 and its connection to I-395 even if then a few of them drive north on I-95 to get onto the proposed east / west. Some of those are 100,000 pound trucks. They don't fit on Route 46 nor on North Main Street in Brewer or even really on Route 9 in Eddington with its school and houses and driveways.

The insufficiency of Route 46 should need no further elaboration. In my decade as Fire Chief in Brewer I and my crews responded to many truck incidents on "bridge hill" on North Main Street at State Street in Brewer. There North Main Street crests a short but step grade onto a flat that is State Street. Annually some low truck travelling in one direction or another bellies out on the cataract and is stuck until heavy equipment can be brought in to free it. Also annually, headed east some truck or multiple trucks can not restart after stopping on bridge hill (for the control light to cross State Street) and have mechanical failures blocking traffic making a dangerous situation.

One such trailer truck, when it attempted to restart, lost security of its load of 500 gallon chemical totes, three of which slide out the rear of the trailer onto the street, one breaking open. The chemical involved was diesel fuel dye. I thought we handled that haz mat spill well but North Main Street / Route 9 was closed in both directions for the remainder of the day.

And such mechanical breakdowns on that hill are not limited to commercial trucks. Years ago we suffered a responding fire engine that was cresting the hill when it had to be stopped quickly. As the traffic obstruction cleared the operator again "gave it the gas". The truck's drive shaft broke. That not only ended its response to its call but also block the hill for awhile so that replacement apparatus was caused to take an alternate route.

So we need a road. Now how to get the best road.

Obviously any new road will take a path that must avoid many things, real or perceived. Thus I recognize the difficulty in finding a route. Here is an alternative I don't think has been looked at.

As seen east bound, beginning at the eastern end of I-395, stay on the existing Route 1A. This portion of 1A was once a four lane road. Why not return it to a four lane with a small barrier between the opposing traffic lanes. By leaving it as open access on the sides the businesses are still served. While the existing interchange between I-395 and Route 1A / Wilson Street would not need to be moved or changed it can be slightly altered to also be a "to reverse direction" facility. By then travelling on the existing right of way of Route 1A, as a four lane for a distance the connector traffic stream does not need to enter the area of or further alter Felts Brook at all.

The connector could then leave Route 1A either about a half mile east of I-395 or I think even better at or just east of the location of Copeland Hill Road.

27-1

In looking at this possible route using Google Earth and contour lines taken from DeLorme's I see a route that appears rather dry, not as hilly as following the existing Route 46 and can reach the desired eastern terminus on Route 9 at about the Eddington – Clifton town line.

The route would pass west of the Holbrook School (and its athletic fields) while south of Holbrook Pond, west of the used portion of Edge of Town Road, staying west of Route 46 until north of Sweets Hill Road, then crossing Route 46, then running more or less parallel to 46, although back enough to be out of the area around the houses on 46, then cross Hatcase Pond Road, then across Blackcap Road, then crossing Bangor Water District Road (though no where near their water supply), then onto the existing Route 9 at or just east of the Eddington – Clifton town line.

This route uses much right of way already owned by the State of Maine. It also eliminates both of the large sweeping curves that were once imagined to help accomplish getting from I-395 without effecting Felts Brook and then getting to the Eddington – Clifton line around East Eddington village. Eliminating those sweeps reduces the needed number of new construction miles.

If such a route were to be used it would be, over all, no longer and possibly shorter than the current proposal for through traffic which fails to get east of Route 46.

While I well remember the difficulties on I-95 north of Old Town when that was a two lane road except at the ramps I think people would support a two lane road within a four lane right of way so that when increased traffic develops in the future we could have a larger facility. I also suggest that the current lower traffic counts are an effect of the current economic condition and that the traffic will return when the conditions change; which they will do sooner than 20 years from now.

I would be very happy to sit with any one who can seriously look at my proposal. I would drive to the proposed locations, fly over it with Google Earth and give greater possible detail.

I hope some one takes me up on this offer.

Rick Bronson
37 Ohio Street
Bangor, ME 04401

From: Cnbrookspe@aol.com [mailto:Cnbrookspe@aol.com]
Sent: Wednesday, April 18, 2012 10:47 AM
To: Charette, Russ
Subject: I-395/Route 9 Alternatives

Russ:

Why was the extension of I-395 on the railroad right-of-way to the Dedham line not among the alternatives considered? **28-1**

carl Brooks

RECEIVED
MAY 16 2012

I-395/Route 9 Transportation Study

Comment Form

(comment form continued overleaf)

Name: Bob Cattan

Address: 223 Jarvis Gore drive, Eddington Me 04428

Phone No. (in case we need to ask for clarification):

Email address (if you would like to receive an occasional newsletter on the study):

Bob Cattan
223 Jarvis Gore drive
Eddington, Me 04428

I've Lived on Rte 46 since 1997 AND the traffic that passes By the Front of my house is not only high volume, high speed, and Major Tractor trailer trucks, This Road is not Build to hold the volume, Speed or the massive Loads. And Alternate route to get From 395 - to - Rte 9 would save time, money, and natural Resources ie (Fuel & Road Repair). In Addition to saving Lives. There has Been many auto accidents which have Been fatal, The speed, size of Loads And the construction of the Road I feel could be Responsible for There unnecessary Deaths. Thank You For your time.

Bob Cattan

Mail your comments to:

Russell Charette	Mark Hassellmann
MaineDOT	FHWA Maine Division
16 State House Station	Edmund S. Muskie Federal Building
Augusta, ME 04333-001640	Western Avenue, Room 614
	Augusta, Maine 04330

www.i395-rt9-study.com

From: pdoody@dragonproducts.com [mailto:pdoody@dragonproducts.com]
Sent: Monday, May 14, 2012 1:21 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: As a resident of Brewer and homeowner who will be adversely affected by the proposed 2B-2 route, I oppose the highway project.Particularly, after everyone agreed the route recommended by Jim Ring, was the most sensible route with the least disruption to the
citizens of Brewer, East Holden, and Eddington.
Box A: #!&576
E-Mail: pdoody@dragonproducts.com
Name: patrick doody
Address: 56 brian drive brewer, ME 04412 Telephone Number:
Date: 05/14/2012

From: rfogg@pikeindustries.com [mailto:rfogg@pikeindustries.com]
Sent: Friday, May 11, 2012 4:27 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I have lived in the Bangor area for 60 years and have worked in the Calis region for nearly 7 years. I also have a summer place on Rte 9 which I go to as often as I can. To get to Rte 9 from Eddington east is a struggle. Rte 46 is the best alternative but is slow and congested. Now is the time to correct the problem as it will only cost more later.
Box A: #!&576
E-Mail: rfogg@pikeindustries.com
Name: Roland Fogg
Address: 1311 Kennebec Road, Hampden, Me 04444 Telephone Number:

Date: 05/11/2012

Ms. Rusty Gagnon
P.O. Box 246
Eddington, ME 04428
Email: rgagnon@myfairpoint.net

May 3, 2012

U.S. Army Corps of Engineers
New England District
Maine Project Officer
Attn: Jay Clement
675 Western Ave., No. 3
Manchester, NH 04351

RE: File No. NAE-2001-02253/
I-395/Route 9 Connector Project

Dear Sir;

I am a property owner, year-round resident, and voter in Eddington, Maine. My family has owned property in Eddington since the 1920s; my youngest brother currently lives on the lot our grandmother purchased at that time. We have four family members (and their families) living side by side, so we have a deep, vested interest in the lifestyle and future of Eddington.

I strongly oppose the I-395/Route 9 Connector project for the following reasons:

1. Eddington has historical significance in Maine's history. We just celebrated the town's Bicentennial. Route 9, originally known as the Airline Route and now also known at Main Road, is part of that history.

    - Route 9 is Eddington's main street. It is officially named "Main Road" on our addresses. The majority of our residents live directly off it with driveways turning onto/off that traffic. For those not having a Post Office box, mail and newspapers are delivered (and collected) at the road's edge.

    - We do not have sidewalks. We do not have public parks for recreating. Our residents use Main Road to walk, jog, and bicycle. During summer months, large bicycling groups use it for their trips. None of these activities will be safe with the projected increased traffic.

2. Data supports truck traffic projections will increase to 4-6 times the current number. Vehicles currently using Route 46 to connect with IA, will instead use Route 9 if the Connector is located where planned. That is the acknowledged plan of the agencies behind this project.

3. Neither the big-rig trucks hauling lumber or goods nor the Canadian car traffic currently recognizes Route 9's posted speed limits (35mph-45mph, and 15mph during two periods daily within designated boundaries close to our elementary school). Yet this project has traffic coming off the Connector at higher speeds in close proximity to the school. And you think a simple "Stop" sign for those traveling Route 9 to accommodate the Connector addresses the increased safety concerns it will create? It doesn't.

- The projected traffic increase will necessitate doubling or tripling our contracted law enforcement with Penobscot County Sheriff's Department, and back-up by State Troopers. Eddington will not recover any of that property tax expense. (Traffic violation revenues are split between Penobscot County and state government.)

- Increased traffic will result in more engine oil surface runoff creating more ground soil and water pollution in Davis Pond, an area which the town and Shoreline residents have worked diligently to improve over the years to bring back better fishing, fowl life, and recreational quality for the people who use it.

29-1

- We have an elementary school and middle school and students who are bused to Bangor, Brewer and surrounding area high schools. This requires a minimum of nine buses on Route 9 making frequent stops at least twice a day. In the winter months, it is still dark when the buses pick up the children at their driveways and close to dark when the children return. The projected increase in commercial traffic will make it more dangerous for anyone, particularly children, at the side of the road. Winter weather conditions make it only worse. With the additional traffic, school bus stops will create a logger neck. Impatient and inattentive drivers will try to pass the school buses or may hit them. Reducing the number of school bus pick-up/delivery stops expecting the children to walk any distance to their driveways is not acceptable because of their ages and weather conditions.

29-2

- Our weekly trash collection requires residents to place their trash containers and bags alongside Route 9 where the trash truck collects them, stopping at each driveway. Collection along Route 9 takes most of the day, from 7 a.m. to late in the afternoon (sometimes into the evening) and on Fridays. As it is, on windy days, increased wind caused by large trucks frequently blows trash, trash bags, in particular, either down into wooded property or out and across the roadway. On bad weather days, it is already dangerous and messy. It will be worse, possibly fatal, with the projected increase.

29-3

4. In recent years the Eddington Planning Board, the town's Board of Selectmen, and Voters approved a comprehensive Master Zoning Ordinance, which complies with all mandated State of Maine regulations, including environmentally protected areas, i.e., vernal pools, and is structured to encourage business development. The Connector, as proposed, ignores the Master Plan and will destroy our business development plan.

29-4

5. We are a rural/agricultural community by choice. As such, we have a limited, but essential business tax base. We want to keep the businesses already here and draw more.

- Documents obtained from the U.S. Corps of Engineers and Maine DOT indicate their work/studies/decisions are not based on Eddington's updated Master zoning plan.

29-5

- Any loss of existing businesses and/or departure of current property owners will cause property taxes to be increased by those remaining.

- Existing property owners in the areas designated to be sold only to Maine DOT will be negatively impacted financially. The specter of the Connector is already impacting potential property sales, and devaluing others. Many property owners cannot afford to move. Some are retired and living on fixed incomes; their homes

are paid for; they cannot afford to move, much less buy new properties requiring new mortgages and improvement costs. Some have horses, cows, several pets, etc., which require rural zoning. Maine DOT will never pay what the homes and properties are worth to the current owners.

- Eddington residents have established essential support resources in Bangor and Brewer, such as doctors, grocery stores, hospitals, dry cleaners, churches, etc., which they can afford and to which are able to drive. (There are no public transportation systems operating in Eddington.) Moving into or further away from Bangor or Brewer is not feasible for these individuals.

6. Eddington's property tax rate is already high because the state does not pay its full share of the school district's annual costs, thereby forcing property owners to pick up that portion which the state does not. So here we are – faced with devalued properties and increasing property taxes. It's just wrong.

7. Collectively, the proposed location of the Connector will kill the town of Eddington. While the town does not need the I-395 project, it cannot survive with it.

8. The project plans to eliminate important wetlands. How the Maine Department of Environmental Protection (DEP) approved this project's plan amazes me. It will affect the area's animal wildlife (deer, red fox, raccoon, porcupines, wild turkeys, skunk, and an occasional bear), migrating fowl (ducks of numerous varieties, Canadian geese, and loons who live on Davis and Chemo Ponds), and migratory birds.

    - It is our understanding agreements were made between the Maine DOT and the town of Brewer, when the I-395 ramps in Brewer were constructed, an agreement to protect the remaining area wetlands. This project violates that agreement.

    29-6

    - A member of our Planning Board obtained and read numerous relevant U.S. Corp of Engineer memorandum. It is amazing to think the Corp of Engineers could evaluate vernal pools in our area when it never gained access to the properties where the pools are. The Corp pretty much acknowledges it never evaluated them. It just decided it could disregard them and required DEP procedures if the existence of the vernal pools conflicted with what the Corp wanted to do. Apparently, the Corp of Engineers believes it is above the law. Amazing.

9. This Connector brings no permanent or long-term financial benefit. When Route 9 was reconstructed two years ago, contracts went to companies outside Maine, and the workers, though temporary, did not come from our area, either. So saying this project will boast Eddington's economy doesn't hold water.

    29-7

    - For over $90 million in tax dollars (and costs will increase – these projects always do), only five (5) minutes in travel time will be achieved. FIVE MINUTES. This is a good use of tax money we don't have when both the state and country are in debt? Don't think so.

10. This project brings absolutely no benefits to Eddington. None. The truck drivers do not stop in Eddington as it is. They do not eat here, buy fuel here, or sleep here. But our community is supposed to be sacrificed to them? Why? Our taxes are supposed to be used for and increased because of a savings of five minutes for people who contribute nothing to our economy? Why?

11. With the strong possibility of the privately funded East-West highway, which will have area off-ramps (none are included in the I-395/Route 9 Connector project), this Connector may never be needed. At the very least, until the East-West highway is completed and traffic needs re-evaluated, the I-395/Route 9 Connector project should be shelved.

From the perspective of using taxpayer monies, which is what state and federal funding is, our taxes, the State of Maine would be better off using the funding to repair current roads and bridges. How about fixing area streets in Bangor with potholes to China, or bridges all over the state already identified as in need but without sufficient funding? It is not beneficial creating something neither needed nor wanted. Talk about bridges to nowhere...

For the last two years, or more, the various governmental agencies have operated in a vacuum, not including or communicating with the municipalities that will be impacted or their standing committees. The government process has been neither transparent nor honorable.

Please, consider these arguments presented and others I know you will be receiving. Know that I am speaking not only for myself, but also for the households of my two brothers and niece who have year-round homes right next door on Davis Pond. Our driveways are directly off Route 9. I can already see, hear and feel the current truck traffic. Any increase is intolerable. My family and neighbors feel the same.

Sincerely,

Ms. Rusty Gagnon, M.A.
1359 Main Road
Eddington, ME 04428

Cc: Governor Paul LePage
State Representative David D. Johnson
State Senator Richard Rosen
U.S. Senator Susan Collins
U.S. Senator Olympia Snowe
U.S. Representative Michael Micheau
U.S. Representative Chellie Pingree
✓ Russell Charette, Maine DOT
Mark Hasselmann, FHWA Maine Division

From: wgardnerwg@aol.com [mailto:wgardnerwg@aol.com]
Sent: Monday, April 30, 2012 7:59 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: The least disruptive and damaging thing to do is to upgrade existing routes/interchanges to better accommodate truck traffic. This would also be the easiest option to MAINTAIN over the long haul. The DOT seems to be under some internal/external pressure, to "build a new road", when we cannot afford to take care of the roads we have now.
In terms of human impact, again, the least disruptive thing to do is to upgrade 9, 46 and 1A. Anyone who bought homes on these routes already decided they didn't mind the traffic enough to PAY MORE to live somewhere else.
Box A: #!&576
E-Mail: wgardnerwg@aol.com
Name: William C. Gardner Jr.
Address: 443 Day Rd, Brewer Me.
Telephone Number:
Date: 04/30/2012

From: Charette, Russ
Sent: Monday, March 19, 2012 4:03 PM
To: John & Roberta Gray
Cc: 'Mark.Hasselmann@FHWA.dot.gov'; Cheryl.Martin@dot.gov; Thomson, Herb
Subject: RE: I395 Rt 9 connector

Mr. & Mrs. Gray,

Thank you for you comments on the project. You are correct that previous discussion did center on the "Ring Route" (3EIK-2). Subsequent to the last Public Advisory Committee meeting held in April of 2009 there have been numerous meeting between MaineDOT, Federal Highway Administration and the other cooperating agencies who have regulatory responsibility over various natural resources. Minutes of those meeting can be viewed on the project website located at:

www.I395-rt9-study.com

In September and December 2010, meetings with the federal cooperating agencies took place. The MaineDOT continued its analysis of the Routes 9/46 intersection and concluded that the build alternatives, including those that use portions of Route 9, would improve the quality of traffic flow at the intersection of Routes 9 and 46 and other physically less intrusive improvements (e.g. as adding turn lanes), could be made to the intersection that would further improve the quality of traffic flow at the intersection. In this general time period, the cooperating agencies requested that additional data be collected on vernal pools in the project areas for the remaining alternatives. Vernal pools are considered by the resource agencies as valuable and are increasingly a threatened ecosystem. There are significant vernal pools impacted by Alignment 3EIK-2. For these reasons, the MaineDOT and the FHWA dismissed alternatives that bypassed the intersection of Routes 9 and 46 to the north in favor of further consideration of alternatives that use Route 9. The MaineDOT, the FHWA, and the federal cooperating agencies further considered Alternative 3EIK-2 and concluded, although available and practicable, that is was more environmentally damaging than other build alternatives and dismissed.

After careful consideration of the range of alternatives developed in response to the study's purpose and needs and in coordination with its cooperating and participating agencies, the MaineDOT and the FHWA identified Alternative 2B-2 as the recommended preferred alternative because the MaineDOT and the FHWA believe it best satisfies the study purpose and needs, would fulfill their statutory mission and responsibilities, and has the least adverse environmental impact. In identifying Alternative 2B-2 as the recommended preferred alternative, the MaineDOT and the FHWA believe they have identified the environmentally preferable alternative because it best meets the purpose and needs for the study; causes the least damage to the biological and physical environment; and best protects, preserves, and enhances the historic, cultural, and natural resources of the study area. The Army Corps of Engineers has not yet determined the Least Environmentally Damaging Practicable Alternative (LEDPA). The Army Corps of Engineer will determine the LEDPA subsequent to the Public Hearing on the project which will be held on May 2nd, 2012 at the Eddington Elementary School.

There will be an open house on April 4th, 2012 at the Brewer Auditorium from 3 to 8PM. There will also be a second open house on May 2nd, 2012 at the Eddington town office from 1 to 4:30 PM.

Please let me know if you have any questions.

Russ Charette

Russell D. Charette, P.E.
Director, Mobility Management Division
Bureau of Transportation Systems Planning MaineDOT 16 State House Station
Augusta, Maine 04333
Phone: 207-624-3238
Fax: 207-624-3301
E-Mail: Russ.Charette@Maine.Gov

-----Original Message-----
From: John & Roberta Gray [mailto:shadyln2@gmail.com]
Sent: Sunday, March 18, 2012 11:13 AM
To: Charette, Russ
Subject: I395 Rt 9 connector

We are Holden residents and have attended many meetings concerning the proposed RT. 9 - Interstate 395 connecting highway. The most recent announcement that the "town line" routes are the favored options is totally out of line with previous discussions and findings. The so called "Ring route" had floated to the top of the list as the route that affected the least homes, had the least noise impact close to residents and eliminated much of the traffic through Eddington village and schools. The "Ring route" is the route that DOT and all others involved in this process should choose.

Why has there been such a lack of transparency in this most recent portion of the decision making process? Was all the time and work on the part of Ray Faucher wasted? Is it simply that the players have changed and feel they will do as they please?

John & Roberta Gray

Holden, Me.

From: medicineman04429@yahoo.com [mailto:medicineman04429@yahoo.com]
Sent: Monday, May 14, 2012 2:48 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I disagree with this route. It goes right thru my property. I spent 10 years making this house to my liking and now the states wants to put me out of my own house. Good luck with that Box A: #!&576
E-Mail: medicineman04429@yahoo.com
Name: Richard Hatch
Address: 114 Levenseller Road Holden Me 04429 Telephone Number:

Date: 05/14/2012

Gretchen Heldmann
439 Main Rd
Eddington ME 04428-3006

5/11/2012

Russell Charette
Maine Dept. of Transportation
16 State House Station
Augusta, ME 04333-0016

Re: I-395/Rt. 9 Connector Project – Draft Environmental Impact Statement Public Comments

Mr. Charette:

Enclosed please find a copy of the statement that I prepared and read at the I-395/Rt. 9 Connector Public Hearing held at the Eddington Elementary School on May 2, 2012. The statement provides many points as to why the proposed preferred alternative as identified in the Draft Environmental Impact Statement (DEIS) for this project does not meet the study criteria, and also highlights failures in the public process over the last few years. My statement cites specific factual sources such as the study website, Public Advisory Committee (PAC) meeting minutes, Maine DOT website, MDOT Interagency Meeting notes, and information I obtained through Freedom of Access Act information requests. My statement is divided into the following sections:

- Process/Public Involvement
- Vernal Pools & Other Habitat
- Noise Mitigation
- Removal/Reinsertion of 2B Multiple Times
- Economic Downturn
- Safety

Highlights include:

- The MDOT ignoring the public process from April 2009 through early 2012, which goes directly against their own Public Involvement Plan document.
- Route 2B-2 relies on using the majority of Rt. 9 in Eddington, designating it a "protected corridor", and suggesting ways to effectively stifle economic development and growth of the town in order to maintain traffic capacity until 203S – open for business or securing the stagnation of a community?
- Inconsistency between state agencies – MDOT using their own version of vernal pool data sheets and field notebooks (with pages ripped out), while the MDEP and MDIFW created and use the Maine State Vernal Pool Assessment Form. Failure to look for all four indicator species of significant vernal pools.
- MDOT telling the PAC that they will secure landowner permission for all access to land for inventorying various features (i.e. vernal pools), yet failing to do so.
- Agendas vs. scientific methodology: "if to our benefit use it...if not explain why not."
- Lack of incorporation of updated traffic data, specifically, traffic data after the 2008 economic downturn.

Gretchen Heldmann | 439 Main Road | Eddington, ME 04428 | (207)299.5889 | gheldmann@gmail.com

- MDOT removing route 2B (essentially identical to today's 2B-2) because it did not meet the original study criteria of a connection to the east of east Eddington, only to reinsert the route at the request of "the agencies", and subsequent failure to adequately explain what exactly changed and how 2B-2 now satisfies the study purpose and needs.
- Writing off the need to do noise mitigation or install a safety barrier to divide the lanes of highway traffic – which would protect the investments and lives of Maine citizens – due to cost, yet having no problem spending $4 million for wetland and vernal pool mitigation.

I appreciate your time and attention in this very important matter, and look forward to a thorough response to each concern and question I presented. Please contact me with any questions.

Sincerely,

Gretchen Heldmann

cc: Mark Hasselmann, FHWA
Jay Clement, ACOE
Hon. Sen. Richard Rosen
Hon. Rep. David Johnson
Hon. Sen. Susan Collins
Hon. Sen. Olympia Snowe
Hon. Rep. Michael Michaud
Hon. Gov. Paul LePage
Commissioner David Bernhardt, MDOT
Commissioner Chandler Woodcock, MDIFW
Commissioner Patricia Aho, MDEP
Maine Committee on Transportation
Maine Committee on Environment and Natural Resources
Maine Committee on State and Local Government

Enc.

Gretchen Heldmann | 439 Main Road | Eddington, ME 04428 | (207)299.5889 | gheldmann@gmail.com

INTRO/PROCESS/PUBLIC INVOLVEMENT:

Hello all, thank you for holding this public hearing. It is apparently our one chance for all communities involved to voice concerns regarding all the changes that have taken place since the last Public Advisory Committee (PAC) meeting of 2009. My name is Gretchen Heidmann, and I live right across the street. If this connector is built, I could stand to see some benefit, such as reduced traffic in front of my house, at least that's what is proposed. However, I moved to Rt. 9 knowing full well it was a very busy state road and there would be traffic – including a lot of big trucks. So to me, this connector isn't something I want or am looking forward to, in order to reduce traffic in front of my house. No, in fact, I care more about our community of Eddington as a whole, and I believe that this connector may have the single largest impact to this community in a long time. I care about this community – I volunteer regularly at Comins Hall and I serve on the Planning Board. I also care about the folks living on Rt. 46 – it is a dangerous road and something needs to be done. But I believe this connector is **not** the answer. This connector shifts the problem from one area of town to another. I also believe that the "protected corridor" proposed, which is basically from where the connector hits Rt. 9 just down the road here, out to the Clifton line, will end up destroying our community. While the state cannot force the Town to change its zoning, they are the ones that administer permits for driveway and road entrances onto Rt. 9 – and they could very easily decide to not grant any more permits in order to protect the corridor and maintain capacity to the end of the study period.

I have some questions and comments about the process over the last few years, since the last PAC meeting, which was in April 2009. At the April 2009 meeting, which I attended, the PAC agreed that 3EIK-2 was their preferred route, and they agreed to dismiss 2B-2 because it did not meet four out of five study criteria - but they were told the Army Corps of Engineers wanted to retain it. They STILL wanted to retain this route after knowing since at least 2002 that the route had very little public support. The PAC was told that vernal pool data was acquired and plotted, but no one saw any vernal pool maps until a few months ago. Keep in mind that the PAC had also been involved in the decision-making process for about a decade prior to this meeting.

As it turns out, after that meeting and unbeknownst to the PAC, 2B-2 was fully put back on the table and chosen (**not** by the PAC) as the preferred route, the vernal pools had not only been mapped, but it had already been determined there were too many along the PAC's preferred route of 3EIK-2. Apparently the work our friends and neighbors had put into the PAC for the last decade was of no importance and has been completely disregarded. The public process in general has been completely disregarded since April 2009, which goes against the Maine DOTs own Public Involvement Plan document, which lists nine things the Maine DOT is committed to: "1) Informing the public, 2) Proactively seeking and encouraging the public's early and continuing input and participation when developing policies, plans, programs, studies, projects, operations, and maintenance activities, 3) Adhering to the principles of Environmental Justice and Title VI of the US Civil Rights Act, 4) Being consistent with the Maine DOT Strategic Plan and the objectives of Connecting Maine, Maine DOT's statewide long-range multimodal transportation plan, 5) Improving customer service through training and effective external communication with stakeholders and the public, 6) Enhancing public awareness and participation, 7) Being fair, responsive and accountable to traditional and non-traditional

stakeholders, 8) Communicating effectively with the public, and 9) Making the best possible transportation decisions to effect and efficient multimodal transportation system that meets the Maine DOT mission and needs of the people of Maine.

It seems to me the theme there is public involvement, since six of nine of those points relate directly to communicating with and involving the public in the process.

Earlier this year, a series of questions were sent from Senator Susan Collins' office, to the Maine DOT for question and answer. [01/09/2012 Q&A from Sen. Collins Office to MDOT:] "Maine DOT will schedule a meeting with the PAC to update them on the decisions that have been made subsequent to the last PAC meeting. The PAC meeting should be scheduled within the next 4-6 weeks. Subsequent to the PAC meeting Maine DOT will schedule and hold meetings to update the Municipal Officials in the four affected communities. These meetings should be scheduled a few weeks after the PAC meeting."

None of that ever happened. Instead, we have been asking for information for months, and it has only been provided after much pushing or Freedom Of Access Act information requests. Both the website that hosts the study info and the Maine DOT Interagency Meetings website, were years out of date, and were not updated until I made a FOAA request for two years worth of Interagency Meeting notes and vernal pool information to try to understand the process over the last few years and also look at the data to back up the vernal pool maps.

VERNAL POOLS:

So let me talk about vernal pools for a moment. I have attended multiple vernal pool training workshops led by Dr. Aram Calhoun. There is a very specific process to assessing vernal pools, with a detailed data sheet to fill out, put together by the Maine Dept. of Inland Fisheries and Wildlife and the Maine Dept. of Environmental Protection, titled "Maine State Vernal Pool Assessment Form". There is also a "Vernal Pool Observer Credential/Project Contact Form" to list contact info and how the person is qualified to assess vernal pools. There are four main indicator species to look for: wood frogs, blue spotted salamanders, spotted salamanders, and fairy shrimp.

The MDOT did not use the Maine State Vernal Pool Assessment Form nor did they use any sort of standard method to gather vernal pool data. I asked for copies of the vernal pool field data sheets as part of my FOAA request, and what I got was a mish mash of their own version of field data sheets and field notebooks – with pages ripped out! When I asked about the discrepancy between MDIFW/MDEP and MDOT's ways of collecting info, and whether they had looked for fairy shrimp (since I saw no mention of them anywhere), I received the following via email:

30-1

[Email 03/01/12 from MDOT:] "We didn't look specifically about fairy shrimp, and we did not make a big effort to look for them. If we had seen them, we would have reported them...In terms of how our effort fits into the MDIFW requirements- and the simple answer is that it doesn't, and is not meant to. We have no plans of submitting any data collection forms to MDIFW as we don't own the land. When we identify an alternative and purchase rights of way, we will re-census the new rights of way only and submit any necessary data forms to MDIFW."

I do not understand how one state agency is able to follow a different set of standards and guidelines than another. Please explain.

There are also guidelines regarding landowner permission to enter onto someone's land to map vernal pools:
[IF&W Insider newsletter:] "Can a Significant Vernal Pool be documented on my property without my knowledge? NO. MDEP and MDIFW have a strict policy of requiring landowner permission before any pool is assessed or mapped."

This question regarding access was also asked at the very first PAC meeting in 2000:
[PAC #1 09/2000:] Jack: How will you gain access to property for study?
Bill: We do GIS tracking now. There is no access to property until later in the study and we will secure permission.

However, it seems that landowner permission was NOT secured by the MDOT when they went out to map vernal pools. They provided the following response to me via email:
[Email 02/29/12 from MDOT:] Pursuant to 23 MRSA § 701, employees of the department "are authorized to the extent necessary for surveys and preliminary engineering to enter and cross all lands within, adjoining and adjacent to the area to be surveyed." There is no requirement that Department of Transportation personnel obtain permission from landowners to conduct these preliminary engineering activities.

If vernal pool assessment and mapping counts as surveying and engineering, and the MDOT knew this all along, then why was the PAC mislead regarding landowner permission?

OTHER HABITAT: Judy Lindsey, former project manager, note on using utility corridors or not for fragmented habitat analysis: "If to our benefit use it as fragmented if not explain why not." If to our benefit use it as fragmented?? Where is the scientific methodology behind that??

NOISE MITIGATION:

The DEIS discusses noise mitigation options for indirectly affected residents. It states that the MDOT has a guideline of not spending more than $31,000 per benefiting receptor (meaning a single residence as far as I can tell), which is based on spending $31 per square foot to build a noise mitigation structure. The DEIS concludes that because the range of expenditure per benefitting receptor is from $194,168 to $1,043,724 – that the costs outweigh the benefits so they are not going to do it. What they do not provide, are any useful numbers, such as, what is the actual TOTAL cost to mitigate noise for each route? At the open house this afternoon I obtained a disc with the Noise Technical Memos and was told I could add up the figures on pg. 13 to obtain the total cost for noise mitigation. I added up the numbers for 2B-2 and came up with $8.7 million. $8.7 million to protect the blood, sweat, tears, and dollars that the tax-paying citizens of this state have put into their homes, protect all that from a connector that is going to negatively affect the noise levels on their properties, which in turn will negatively affect their property values. However, MDOT is perfectly fine with spending upwards of $4 million for mitigation of **direct** impacts to wetlands and vernal pools. At PAC meeting #3, the group agreed their top three priorities were:
[PAC#3 Top Priorities 11/15/2000:]
1. Safety
2. Travel efficiency
3. Neighborhood integration

30-2

Neighborhoods are not being integrated if noise is not being mitigated. Please reconsider your priorities and the need for noise mitigation.

30-3

REMOVAL/REINSERTION OF 2B MULTIPLE TIMES:

I also still do not understand the removal and reinsertion of 2B/2B-2 and how it meets the criteria.

02/2002 MDOT Alternatives Narrowing Process: To improve regional system linkage, an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46. Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not provide a substantial improvement in regional mobility and connectivity and would negatively affect local access. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46.

02/20/2002 PAC: Bill Plumpton gave an overview of the MDOT process of review and logic to reduce the number of alternatives for final comparison and detailed analysis (see attached). To fully satisfy the study purpose and need of improved system linkage, Bill said an alternative has to tie into Rte 9 east of Rte 46.

For these reasons, MDOT removed route 2B from the alternatives.

05/22/2002 PAC: "The Agencies" want to keep 2B because it "could be 'practicable' in accordance with the law. Bill Plumpton defined practicable as 'available and capable of being done after taking into account cost, existing technology, and logistics in light of overall purpose.'"

07/24/2004 Handout: "Maine DOT and FHWA have selected 3EIK-2 as their preferred alternative, but the Army Cops of Engineers is also soliciting comments regarding a second alternative, 2B-2."

What changed? I keep asking this question, and I even did a FOAA request to find this out, and still do not have an actual answer. Where are the data? Where are the analyses? Charts? Graphs? Regressions? Just because too many vernal pools were found along 3EIK-2 does not mean that some magic dust was sprinkled on 2B-2 and Rt. 9 that suddenly make it meet the needs – that is like comparing apples and elephants! Further, what is the point of developing a study purpose and needs, when it appears it will all be trumped by cost, existing technology, and logistics?

ECONOMIC DOWNTURN:

Is this connector still even needed? What is the rush? We have not seen a big boom in the economy as of late – in fact, the opposite has happened -- so why do we need to push this DEIS through, without having given the PAC a chance to comment on all these changes? Speaking of changes and the economic downturn, the DEIS acknowledges the economic downturn, but continues to use traffic count data numbers from **before** the downturn. Numbers from after the downturn need to be included in all analyses now, to determine if the connector is still needed, what the design should be, design year, etc. The study year was changed to reflect the downturn, moving it out five years to 2035 from 2030. Where did the five year change come from? What data support a five year change? Why aren't more recent traffic count numbers being incorporated into analyses?

30-4

SAFETY:

What is the cost of a Maine life? I would wager it is worth far more – priceless, in fact – than the cost to install a barrier to divide these proposed two lanes of highway traffic. The cost should absolutely not be prohibitive in this case. $4 million on wetlands and vernal pools but we cannot spend $4 million to install some sort of divider that could potentially save a life. Last summer we lost a few lives on Rt. 9, right at the very bend where this connector is proposed to connect to Rt. 9. The sheriff has clocked people going in excess of 90 miles per hour at that same spot. There are school bus stops there. Where this connector is proposed to join Rt. 9, is already an unsafe location. Turning it into an intersection, with traffic flying off the connector at 55 miles per hour or more, and merging directly into our rural area, with a business entrance right there and school bus stops, does not make sense. Making everyone that commutes from outer Eddington, Clifton, Amherst, Aurora, etc now have to use a stop-sign intersection to continue onto Rt. 9 to make their way to the University, Hospitals, or other places of work in Bangor and beyond -- does not make sense and will cause a daily commute nightmare. I drive Rt. 9 every day -- and when I get into Bangor, the majority of the daily commuters I am in line with, take that first bridge to connect into Bangor. Not so many follow me to I-395 to get on the highway – and I only get on the highway to cross the river.

CLOSING:

Time and time again, the State continues to provide band-aid fixes to serious problems with our infrastructure because of cost. This connector is nothing more than another band-aid fix, going with the lowest cost option, that makes the least amount of sense, just so the State can say they did something, and by golly, they created some jobs, too! Yeah, and another stretch of road that will be inadequately maintained and cost us even more money into the future. A stretch of road and protected corridor that will destroy our community of Eddington, impact hunting and snowmobiling and other forms of recreation, and by the time the damage is irreversible, the State will be looking again at a connector to bypass the connector. While something does need to be done about traffic on Rt. 46, shifting the traffic to another road in town is not the answer. It does not meet the original criteria of providing a limited-access connection between I-395 and Route 9 east of Route 46, because alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not provide a substantial improvement in regional mobility and connectivity and would negatively affect local access. This connector is not the answer and it is certainly not good for the entirety of the residents of the Town of Eddington.

From: Jane Hinckley [mailto:jane.hinckley@gmail.com]
Sent: Monday, May 14, 2012 8:58 AM
To: Russ.Charette@maine.gov; Mark.Hasselmann@dot.gov; Clement, Jay L NAE
Subject: I-395/ route 9 connector

Proposed connector from I-395 to Route 9

It is very difficult to understand how the currently proposed connector, which would run almost entirely through Brewer and dump out onto a residential /commercial stretch of Route 9 in Eddington, could even be considered by the MDOT. This is not a four lane connector with a median strip, but merely a limited access road with one lane in each direction.
The road would be only marginally safer than any current route, and be very dangerous to people living on that stretch of Route 9. How will the truck traffic be able to merge east or west on Route 9 without endangering the safety of those traveling that stretch of the road, and disrupting the lives of those living nearby? **31-1**

The original purpose of this highway was to take truck traffic off Route 46 and connect with Route 9, east of Route 46. Since the change of weight restrictions on I-95, there have been no studies done to validate how traffic patterns have changed, and what the impact of the privately funded east-west highway will be on future traffic patterns. The MDOT needs to **31-2**

step back and recognize the problems with this plan. Money which has been spent on research for this plan could have been much better used to repair existing roads and bridges. No-build has the least impact on our area.

There is something seriously wrong with a plan that does not meet the original intent, is not sanctioned by the communities involved, and ruins well established neighborhoods in these areas. No build is the only sensible way to go.

Jane T. Hinckley

5 Woodridge Road

Brewer, Maine

From: dhoc12@roadrunner.com [mailto:dhoc12@roadrunner.com]
Sent: Thursday, May 10, 2012 2:32 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I feel that the proposed route for the I-95 route 9 is the best route that would be an advantage for the town of Eddington.It would make for easier travel to the shopping areas of both Brewer and Bangor.I think that the town would grow as more business may locate there if there was easier access to the interstate system.I lve on rt.9 and I don't believe there will be any more traffic than there is now and the safety issues won't be any worse.I think the corps of engineers and the state highway dept. have chosen tha correct and only reasonable route Box A: #!&576
E-Mail: dhoc12@roadrunner.com
Name: David Hocking
Address: 1217 Main Rd, P.O.box 214, Eddington,Me 04428 Telephone Number:

Date: 05/10/2012

From: John Huskins [mailto:jphuskins@aol.com]
Sent: Sunday, May 13, 2012 6:30 AM
To: Charette, Russ
Subject: RE: I-395/Route 9 Transportation Study

Mr .Charette,

I am writing to let you know that I am against building the 2B-2 connector route. I attended the Eddington meeting and agree with my neighbors that this route is not needed, does not benefit the affected communities and does not meet the needs of the original study. It seems to me that the rational used to choose the 2B-2 is faulty. If the Ring Route was eliminated as an alternative due to environmental concerns, then all routes should be eliminated. Just choosing a shorter route does not lessen the impact. I'm sure that the impact per mile is the same. I believe that a lot of valuable information has been lost over the years of this study due to all the personnel changes. The satellite images used at the open houses did not show homes that have been recently built in what would be the right-of-way for 2B-2. I believe that if the people who built these homes knew that there was a road being planned, they would not have built. The bottom line is that this road does not solve any problems. This road moves problems and created new ones. I strongly oppose this connector route. **32-1**

John Huskins

45 Woodridge Rd

Brewer, ME

From: wpkarc@tds.net [mailto:wpkarc@tds.net]
Sent: Friday, May 11, 2012 3:28 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I'm not too sure this is the appropriate time to request money to build this corridor because of the economic climate at the present time. I don't travel in that area enough to know much about it, but when I do travel there, I can clearly see that the slow traffic is a major concern regarding moving good efficiently. Therefore, I would agree that this corridor is needed.
Box A: #!&576
E-Mail: wpkarc@tds.net
Name: Walter Kilbreth
Address: PO Box 120 Kingfield, Maine 04947 Telephone Number:

Date: 05/11/2012

Larry Lancaster

From: "Larry Lancaster" <lflanc@roadrunner.com>
To: <Russ.Charrette@maine.gov>
Sent: Thursday, April 05, 2012 2:42 PM
Subject: I 395 Rt9 connector

Larry Lancaster ; My house is at the connector of the two highways in Eddington. Comments.

Going West keep the right lane as is, which would help the [Fire Dept when it has to go west on Rt 9] ; a Yield sign at the connector road so we that live here can get to the new road.
From the cennector road East, keep the right lane and dead end it at the last house affected one beyond my house, that way we can get to our homes from the west.

33-1

,

Also the connector road could be moved a few hundred ft East.

33-2

I would say no build .

lflanc@roadrunner.com

Larry Lancaster
650 Main Rd
Eddington, Me 04428

D

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MAY 16 2017

I-395/Route 9 Transportation Study

Comment Form

(comment form continued overleaf)

Name: Marcia Lyford

Address: 197 Jarvis Gore Dr., Eddington 04428
(aka Rt. 46)

Phone No. (in case we need to ask for clarification):

Email address (if you would like to receive an occasional newsletter on the study):

Marcia Lyford
197 Jarvis Gore Dr.
Eddington, ME 04428

L

When we moved to Rt. 46 36 years ago, it was fairly quiet, with just a few pulp trucks travelling to Bucksport. Since NAFTA, the truck traffic to and from Canada is never-ending. We can no longer put a screen in our front door during the summer, as it's so noisy. There are accidents on the hill close to Rt. 1A during most snowstorms, blocking the road. We no longer dare to walk beside the road. The I-395 connector is badly needed and will relieve the truck traffic on 46. I strongly support this connector. 34-1

Mail your comments to:

Russell Charette	Mark Hassellmann
MaineDOT	FHWA Maine Division
16 State House Station	Edmund S. Muskie Federal Building
Augusta, ME 04333-001640	Western Avenue, Room 614
	Augusta, Maine 04330

www.i395-rt9-study.com

From: pinebrz@gmail.com [mailto:pinebrz@gmail.com]
Sent: Sunday, May 13, 2012 5:48 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I am writing you about MaineDOT's proposal to connect Route 9 Downeast to I-395. The project is at a critical point as the public in areas such as Brewer are against this proposal. After ten years or more of deliberations, the Dept. and Federal agencies have decided on three options, 2B2, seems the best one because of price and less impact on the surrounding areas.

It is clear the Department's leadership believes this project has a strong rationale to support it and a quick look at an existing highway map makes the case.

The close of comments for the EIS record is the 15th of May.
Box A: #!&576
E-Mail: pinebrz@gmail.com
Name: Irene Rogers
Address: Dennysville, Maine
Telephone Number:
Date: 05/13/2012

From: Tammy Scully [mailto:easterlywine@myfairpoint.net]
Sent: Saturday, April 21, 2012 11:06 AM
To: Charette, Russ
Subject: Connector

Dear Sir:

Please consider this a statement of opposition to permitting any new road construction between Interstate 395 and Route 9.

I do not believe the environmental costs are worth the traffic improvements, therefore I support the "no build" option. Further, I believe mitigation is inherently flawed. Destruction of the environment is destruction of the environment and cannot properly be mitigated.

Thank you,
T Scully

Tammy Scully
Easterly Wine LLC
30 Washington Street
Belfast, ME 04915

easterlywine@myfairpoint.net

From: Luvs2Garden2@aol.com [mailto:Luvs2Garden2@aol.com]
Sent: Monday, May 14, 2012 9:19 AM
To: Clement, Jay L NAE
Subject: I-395/route 9 connector

We are expressing our opposition to this proposed highway for several reasons. We attended PAC meetings since the year 2000 and in 2009 we were led to believe a route had been chosen. Since then, there are several discrepancies in this study. How can the purpose and needs change? Why wasn't the PAC re-called if the study changed? Why weren't the Town of Eddington and the City of Brewer, not to mention the public, let in on the new study? Why was the preferred route 3EIK-2 dropped?
Why was 2-B brought back with a new name; 2B-2?

Reasons cited for dropping the preferred route are vague but apparently environmental issues were suddenly discovered. The mapping of the vernal pools apparently wasn't conducted correctly. With the new study for the E/W highway, we wonder if this connector should even be considered now.

MDOT/FHWA officials 'hope' Eddington will not develop so that this connector can be built and that is just ludicrous.

The safety issue of this connector has not been fully studied. Coming off a high speed road to a stop sign on a very, very busy Route 9 is an accident waiting to happen. **35-1**

Every time new roads are built in our area, we realize the folks planning them don't drive them because they never make sense. This road is one of them.

Carol & Vinal Smith
27 Woodridge Road
Brewer, ME 04412

From: Luvs2Garden2@aol.com [mailto:Luvs2Garden2@aol.com]
Sent: Friday, May 04, 2012 4:45 PM
To: Charette, Russ
Subject: I-395/route 9 connector

We feel that most of our questions were asked at the public meeting in Eddington on May 2, 2012. We just want to go on record as being opposed to this connector for many reasons. Of course the biggest is that we have lived in our neighborhood for 26 years and don't want to have to put up with construction, exhaust pollution, traffic noise and a house that loses its value because of this road. Other reasons are that this road is unsafe. It will interrupt wildlife and the environment. We don't feel it is necessary once the East West Highway is built. It will cost taxpayers way too much money. You don't even have funding! There are so many roads in need of repair. You might look at those instead of building a new one.

Vinal & Carol Smith
27 Woodridge Road
Brewer, ME 04412

I-395/Route 9 Transportation Study

Comment Form

Name: Judith R Gerber

Address: 214 Forest Ave Orono, ME 04473

Phone No. (in case we need to ask for clarification):

Email address (if you would like to receive an occasional newsletter on the study): hoytown@myfairpoint.net

When this study originated in ~~the~~ 2000, Safety on RT9 was one of the study's purpose. Is the only way alternative 2B-2 works is to remove safety on RT9 as a purpose? The safety impacts on RT9 don't disappear just because you eliminated it as a purpose

36-1

www.i395-rt9-study.com

I-395/Route 9 Transportation Study

Comment Form

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MAY 10 2012

(comment form continued overleaf)

Name: MARK + Julie Thompson

Address: RT. 9 Eddington

Phone No. (in case we need to ask for clarification):

Email address (if you would like to receive an occasional newsletter on the study):

I strongly believe that the D.O.T is going to do what ever they want in the end, but on behalf the ~~[illegible]~~ citizens left to pick up the pieces, and increased taxes and fees. A toll both at the suggested intersection perposed would at least help ease the financial burden the state has put us on, "once again". Slow merging traffic And help the towns involved. Give Eddington 20% of the collected toll money that mostly will be used by the Canadians, and trucking Companys anyways.

Sincerely

The Thompsons

RT 9 —

37-1

Mail your comments to:

Russell Charette	Mark Hassellmann
MaineDOT	FHWA Maine Division
16 State House Station	Edmund S. Muskie Federal Building
Augusta, ME 04333-001640	Western Avenue, Room 614
	Augusta, Maine 04330

www.i395-rt9-study.com

From: Linda Tucker [mailto:mustangblue9@gmail.com]
Sent: Friday, May 04, 2012 6:07 PM
To: Charette, Russ
Subject: I 395 route9conector

We are for the no build. safety issues,bad intersection at route 9,school bus stops on route 9,devalue the town with closed corridor,added taxes for lost property and for devaluation.This appears to be for candians and for truckers.

I-395/Route 9 Transportation Study

Comment Form

RECEIVED
APR 10 2012

Name: Wendell Tucker

Address: 181 Chemo Pd Rd Eddington ME 04428

Phone No. (in case we need to ask for clarification):

Email address (if you would like to receive an occasional newsletter on the study):

① this money better spent on roads you already have

② From Rt 9 connector to Brewer that section of RT becomes town Maintained or another neglected State road less used less maintained

③ has enough consideration been taken to the exit and entrance at route 9 given the speed on the connector

④ I support the NO build until the study is done on the east west highway and that is a NO build

38-1

Thank You
Wendell Tucker

Wendell Tucker
181 Chemo Pond Rd.
Eddington ME 04428
ME Dem

From: jdvandyke@roadrunner.com [mailto:jdvandyke@roadrunner.com]
Sent: Sunday, April 08, 2012 5:47 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: I have just finished listening to Peter Vigue in reference to his "Private funded" initiative for an East-West Highway.
As I see his initiative, his toll road proposal will start in Calias and ending at the western part of the state.
It appears to me, if money is spent on the I-395 connector and his toll highway is also approved, the use of Route 9 to I-395 will be less used over the faster toll road.
Realizing, the I-395 connector has been a dream for many years, to me, it seems a waste of money and acquiring property for a future "Bridge to Nowhere" connector.
Placing a hold on the I-395 connector may be in the cards!
Box A: #!&576
E-Mail: jdvandyke@roadrunner.com
Name: John Van Dyke
Address: 610 Eastern Ave., Brewer, Maine Telephone Number:
Date: 04/08/2012

39-1

From: ward2607@aol.com [mailto:ward2607@aol.com]
Sent: Monday, May 14, 2012 8:55 AM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: My name is Joel D. Wardwell. As a former Town Councilor for Bucksport for 18 years I am all too familar with the heavy traffic feeding off Route 9 to points southe and west. We pressed for the Route
46 corridor improvement for many years. The objective of the I-395connector is to put the truck traffic off Rte 9 directly onto I-395 and then to points west in Bangor, on I-95, or onto Rte 2. We in Bucksport see agreat deal of that traffic not going in this direction but proceeding down the south end of Route 46. It has always seemed to make more sense to spend the money to connect all the corridors, not just one. Route 46 proceeds south from Rte. 9 to Rte 1A, and then continues to connect to US Rte 1 & 3 which access Verso Paper and the Webber Oil port in Bucksport, Ellsworth, Bar Harbor, and then to the Maine State Port Facilities in Searport. To reconstruct and improve what presently exists (Route 46) seems a much less intrusive alternative than constructing a new!
location which has no consensus. Route 46 will remain a major truck Route to Brewer, Bangor, I-95, Rte 2,Bucksport, points east on Rte 1 & 3, and Searsport for the many years that this project will be under scrutiny (and probably be abandoned such as the Wiscasset bypass)so why not just committ to the obvious? I think sometimes the most practical and cost effective may be right in front of you. You can never solve this by consensus but someone needs to realize that this is all real tax payer money and tough decisions need to be made. Consider this in your deliberations. Joel D. Wardwell Box A: #!&576
E-Mail: ward2607@aol.com
Name: Joel D. Wardwell
Address: PO Box 263, Bucksport, Maine 04416 Telephone Number:

Date: 05/14/2012

From: jwwardwell@laneconstruct.com [mailto:jwwardwell@laneconstruct.com]

Sent: Monday, May 14, 2012 8:25 AM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: Being a Bucksport businessman this is extremely important for our economy,with the new Verso Bio-Mass boiler there will be an additional 80 trips per day (increase of 269% - 148,000 tons to 546,000 tons)A great deal will be coming from the downeast/rte 9 areas and the logical route would be this new by-pass to rte 15 to the mill or its laydown yard which is also on rte. 15. If this connector was not built you would see all or most traffic using rte 46 which is very hilly, sevaral curves, gravel shoulders and has much tree growth canopy which hinders getting ice and snow off the roadways during winter months when alot of the product could be moved. Another point is that rte 46 is posted in the spring because of the lack of subbase material that cannot support the heaviler loads and also by coming down rte 15 the trucks would NOT be traveling through downtown Bucksport to get to the mill.
Also by this fall....ALL of rte 15 will be reconstructed with the last piece in Orrington being worked on as we speak, with truck lanes being built and a truck weigh area already constructed, where as there is no place to pass on the rte 46 corridor.
Also rte 15 has been used for decades with transport of jet fuel - home heating oil and many other products from Webber Energy and Dead River Co. along with the many products coming to and from Verso. - Thanks for your time... this seems to be a common sense solution.

Box A: #!&576
E-Mail: jwwardwell@laneconstruct.com
Name: john w. wardwell
Address: po box 823 bucksport, maine 04416
Telephone Number:
Date: 05/14/2012

From: Mark Wellman [mailto:mwellman207@gmail.com]
Sent: Thursday, May 10, 2012 10:18 PM
To: Clement, Jay L NAE
Subject: File No. NAE-2001-02253 opinion

I do NOT believe it is the best interests of the people of Maine and the residents of Eddington to see the I-395 connector addition constructed. It is too expensive for our state and the federal government especially in today's recession, will negatively impact the property tax rates, and will forcibly take land from homeowners and businesses who don't want to move.

Given the immense amount or resources and time that has been invested in this project, the last minute changes forced upon our residents, and the never ending debate, I believe we should wait until a decision about the construction of an East-West highway is made before any further money or time is misspent in the File No. NAE-2001-02253 project.

40-1

Thank you for your consideration.

Mark Wellman
PO Box 97
28 Squirrel Lane
Eddington, ME 04428

From: stevew@hobouchard.com [mailto:stevew@hobouchard.com]
Sent: Friday, May 11, 2012 4:41 PM
To: Charette, Russ
Subject: Comment from I395/Rt9 DEIS comment website

Comments: There have been on-going discussions in Maine regarding the need for improvements to the east/west system for decades. Much has been done over the decades to improve the situation: vast improvements to rt 9 and the building of I-395 from I-95 to rt 1.

What is now lacking is a convenient connection from the end of I-395 to route 9 eastbound. This bottleneck slows commerce, disrupts neighbohoods and is unnecessary.

The economies of Maine and eastern Canada need a solution to the gap from Brewer to the Airline. I do not know the best solution, but I know a solution is needed.
Box A: #!&576
E-Mail: stevew@hobouchard.com
Name: Stephen
Address: Whitcomb
Telephone Number:
Date: 05/11/2012

Patricia T. Wilking

1350 Main Road

Eddington, Maine, 04428

Dear Mark Hasselmann,

I am a property owner, resident, and voter in Eddington, Maine, and I am opposed to the I-395/Route 9 Connector project at this time. I have lived in Eddington for 46 years and feel it unnecessary to build the Connector.

We are a rural/agricultural area and have worked over the past 20 years to increase our tax base. We have a new ordinance to meet our goal of more business in the area.

In an informal survey of 3-4 axel trucks using Rt. 46, we found there were 1457 per week(+/-) or an average of 208 tractor-trailers a week, based on 7 days average. If the I-395 Connector is built we will have to pray that the 208 (average) tractor-trailers will use caution when approaching the area at the foot of Meadowbrook Hill where we all assume there will be a stop sign for the school buses. I will add here, that if traffic going either East or West has not been in the area for a couple years before construction, you will see people driving right through, as (except for the Cities) there are presently NO stop signs on Rt. 9. 41-1

If the agencies assigned to the task of building this piece of highway is doing it to appease the Canadian truck drivers or to favor the Canadian tourist, I think you will have to re-visit that thought. I have family in Frederickton, Moncton and Halifax and they all say they will still go Rt. 11, or better yet, the East-West highway. And I do believe the East/West Highway will be built, thus making the need for the Connector unnecessary.

As far as it goes when you folks state that Holden has a diversity of traffic - that is utterly laughable. Each of our towns have our share of cars, pickups, delivery trucks, tractor-trailers, Motor Homes and the like. How is it that Holden has such "diversity"?

How can you select Eddington and make it a "ghost" town with a clear conscience? As said at the May 3rd meeting in Eddington, ALL the things your (state & federal) agencies specigy will kill our town - financially! Who would want to buy out here when all land values are depressed and taxes (because of lack or inability to develop areas for homes and businesses) will sky rocket. I fear that I may never be able to sell my home.

Now, it was my understanding that when the interchange at Whiting Hill was constructed that because too much wetlands had been used that the State/Federal agencies had to sign a paper stating there would be NO further development in that area. Is this true? And if so, why is it now OK to built further in that area.?

It is written in the Rt. 9 Transportation Study Envionmental Impact statement that Rt. 1A is becoming more commercial. What on earth do you think Eddington has been , for years, trying to make Rt. 9 more Commercially useable.

As for Rt. 46 having "scattered residences & open areas, that is because it is zoned for Agriculture & residental use.

Concerning safety, Ben Pratt spoke of being on the Fire Dept and did not tell you that the latest crash that took the lives of two (2) women last year happened in front of his driveway (caused by a Canadian driver, I must add).

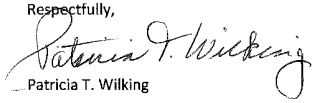
It is my humble opinion that if you build is short be the straightest, shortest route. The direction, most of us going to Brewer take, is the Rooks Road off Rt. 9. up Clarks Hill Rd. to Mann Hill. At this point you have a straight shot to Rt.

1

1A. This route should cost much less and have practically little wetland that would be inpacted.

Enough said! I do not know who the head "honcho" is for this project, but I can bet you that their desk will be covered with emails, petetions, and snail-mail if this folly goes forth. Expediancy does not make for a solid plan one needs for safety of vehicles or human beings alike. Hopefully all the agencies will get together and carefully see if this endeavor ir truly needed at all. My bet is on the East/West highway! This plan of yours has NO earthly benefit to the town of Eddington and its residents at all!!

Respectfully,



Patricia T. Wilking

CC: Governor Paul LePage

State Rep. David D. Johnson

State Rep. Richard Rosen

US Senator Olympia Snowe

US Senator Susan Collins

US Rep.Micheal Michaud

US Rep. Chelli Pingree

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IN RE I-395/ROUTE 9 TRANSPORTATION STUDY

Public Meeting at the Eddington Elementary School

Reported by Robin J. Dostie, a Notary Public in and for the State of Maine, on May 2, 2012, at the Eddington Elementary School, commencing at 6:00 p.m.

REPRESENTATIVES FOR THE STUDY:
WILLIAM PLUMPTON, GANNETT FLEMING
JAY CLEMENT, ARMY CORPS OF ENGINEEERS
MARK HASSELMANN, FEDERAL HIGHWAY ADMINISTRATION
RUSSELL CHARETT, MAINE DEPARTMENT OF TRANSPORTATION

ALSO PRESENT:
BRUCE VAN NOTE, MAINE DEPARTMENT OF TRANSPORTATION
HERB THOMSON, MAINE DEPARTMENT OF TRANSPORTATION
RICHARD BOSTWICK, MAINE DEPARTMENT OF TRANSPORTATION

Dostie Reporting
7 Morrissette Lane
Augusta, ME 04330
(207) 621-2857

I N D E X

Dostie Reporting
7 Morrissette Lane
Augusta, ME 04330
(207) 621-2857

TRANSCRIPT OF PROCEEDINGS

MR. PLUMPTON: Good evening, People, and welcome to the public hearing for the I-395 to Route 9 Transportation Study. My name is Bill Plumpton. I was hired by the engineering -- or I'm with an engineering firm that was hired by the DOT and I will be the moderator for the evening's public hearing.

Our public hearing tonight has a very limited purpose. Its purpose is to hear your comments on the Draft Environmental Impact Statement that's available for public review and comment, for the DOT to take your comments, factor them into their decision-making process before decisions are made. We'll explain decision-making and we'll explain commenting a little bit later. We've got a sign-up sheet. Some people have signed up on their way in to offer comments tonight. Great. We've got a few opening remarks from a couple of people. During our openings remarks, if anybody wants to continue to sign-up to offer a comment during the testimony portion just get my attention and I'll get the clipboard over to you and we'll talk about commenting in just a little bit.

Tonight is a listening session. The DOT and the Federal Highway Administration and the Army Corps

of Engineers are here to listen to your comments on the Draft Environmental Impact Statement. They are particularly interested in your comments that have -- suggests that there may be missing information in the Environmental Impact Statement and that that missing information needs to get into it before any decisions are made. Let me be unequivocally clear, no decisions have been made so far on the preferred alternative for this study. Any decision until now would have been premature. The decision-making process absolutely needs to consider comments that are offered tonight and during the remainder of our comment period.

With that, let me run through our agenda this evening. We've got a few opening remarks and the remainder of this evening's time belongs to you people. Our first speaker will be Mark Hasselmann from the Federal Highway Administration. Mark, you just want to go over some opening remarks, NEPA, maybe?

MR. HASSELMANN: Okay.

MR. PLUMPTON: Very good. Our second speaker will be Jay Clement from the Army Corps of Engineers to talk about the permit application that the DOT submitted to them. Our final speaker will be

Russell Charett. He is the DOT Project Manager for this study. Each of these three gentlemen has some brief opening remarks and I'll come back up and I'll talk about commenting and really how we'll run the remainder of this evening's program. So with that, Mark.

MR. HASSELMANN: Thank you, Bill. Good evening and thank you for coming tonight. A few remarks with regards to NEPA and what we mean with regards to the -- the purpose of the study is to -- and its overall direction is guided by National Environmental Protection Agency. It's under NEPA that we demonstrate compliance with all of the federal laws, state laws and presidential executive orders as a -- that we demonstrate our compliance. The process has been really developed to comply with the NEPA. It's -- the process is intended to help the public officials, that's us, make decisions based on the understanding of the environmental consequences and to take the appropriate action to protect, restore, and enhance the environment. NEPA applies to all federal agencies and we must take into consideration the natural, social, economic, and cultural environment in our analyses and we need to disclose those analyses and those considerations in a

public decision-making process. That's the Environmental Impact Statement that we have provided for comments.

This DEIS identified reasonable alternatives and it assesses the potential transportation, social, economic, and environmental impacts. It's the primary document that we use to facilitate our review of the action and it includes review by federal, state, local, agencies, and you, the public. It's intended to provide for a full and fair discussion of significant environmental impacts and information to the decision-makers. The EIS was first circulated publicly as a Draft Environmental Impact Statement. It is currently available. We have received comments from some of you. We've received comments from some of our federal and state partners as well.

As we move forward, MaineDOT and Federal Highway with input from the public and the federal and state regulatory resource agencies will decide what action we take here. We're here to listen to you. We're here to hear your comments. The public comment period for the project closes on the 15th of May. And we -- it would be really good if we could have all of your comments, written or oral, provided to us by then. Bill.

MR. PLUMPTON: Jay.

MR. CLEMENT: Okay. Again, I'm Jay Clement with the Army Corps of Engineers down in Manchester. The Corps of Engineers is one of two permitting agencies that are responsible for approving the project eventually sometime later down the road; the other one is the Maine Department of Environmental Protection or DEP. The MaineDOT has submitted an application to the Corps of Engineers. It is not, and I have to be really clear on this, this is not a permit application. DOT is quite some time away from submitting an application to the DEP and the Corps that will result in a permit whereby they can then go ahead and actually construct something. So lack of a better word what they've submitted so far is called a preliminary application. It's really designed to assist the Corps in identifying what's the least environmentally damaging, practicable alternative.

The Corps -- our jurisdiction is focused on filling waterways and wetlands so it's the streams, Felts Brook, Eaton Brook, the various other main streams that are out there, their adjacent wetlands and then, you know, any other aquatic resources that are out there. That's what triggers Corps of Engineers jurisdiction is the filling. So, again,

eventually DOT will have to seek a permit from the Corps and then depending on what the extent of wetland and waterway impact is they will also have to mitigate for those unavoidable losses. Mitigation did take the form of preserving wetlands, creating wetlands, restoring wetlands, or actually paying a fee in some cases to offset those losses or a combination thereof.

To facilitate our review and the identification of that least environmentally damaging, practicable alternative the Corps has recently issued a public notice. You may have seen it in the papers, you may have seen a news release or a subset of this, it may have also been in other news media. It has a -- it was released on April 17. It expires on May 17 and much like the Federal Highway's NEPA review process it solicits public comment to assist the Corps in identifying which of the alternatives that have been put forth by DOT representatives the least environmentally damaging. And when I say environmentally, I mean to the aquatic environment, to the natural environment, and also to the human environment. Ultimately, when the Corps and the DEP review the project towards issuing a permit we have to balance all those factors together

and make the decision as to what gets a permit or what does not.

So that's really where we are. Again, please comment. We accept comments in writing. We accept comments in email. If you don't have access to the public notice, I have a few copies up here and I can also get you one if you need one just let me know and I can write your name down and contact information. So thank you very much.

MR. CHARETT: Good evening. My name is Russell Charett. I'm the Project Manager on this project. I took over the responsibilities for this effort in January of this year when the previous project manager retired.

This study began in the early 2004-2005 and was subsequently elevated to a full environmental impact statement by the Federal Highway Administration based on impacts to environmental resources and I think public interest. The purpose of the study is to identify and improve system linkage from Route 9 in Eddington and the Clifton area to the Interstate system at I-395 at Wilson Street. In addition to the NEPA requirements in terms of processing this project we also have statutory requirements and state law requiring under

the Sensible Transportation Policy Act that was passed by the voters in 1991 that requires that we consider various considerations in moving forward with this transportation infrastructure improvement. One of the other issues and purpose and need for this project is to improve safety in terms of crashes and accidents. The connection would provide improved traffic flow on 1A and 46. The traffic estimates forecast for this area are projected to be such that those areas will become more and more congested as the businesses grow along the 1A corridor.

There are three remaining builds and alternative builds under consideration in the Draft Environmental Impact Statement. The preferred alternative that's identified is the 2B-2 alternative. 5A2B-2 is a similar alternative that is colinear to 2B-2 for most of its length, the only difference is the interchange. The 5A2B-2 interchange is a little bit further to the east towards Ellsworth from the existing interchange. 5B2B-2, a third build alternative still under consideration leaves the existing interchange then runs pretty much on top of the utility corridor that runs parallel to the Brewer/Holden town line.

Funding for this project has not been

identified. Again, the decision as to whether we have a build alternative or a No-Build alternative has not been made. If a build alternative is determined for this project we would look to move forward to have preliminary engineering design funds identified at the earliest probably in the 2014-2015 work plan with subsequent identification for construction funding in the next biennial work plan, 2015-2016 work plan, when it is likely to be the earliest timeframe for any construction -- design or construction to be identified.

Resources that are available on the table as you came in to the auditorium here is it would be the Draft Environmental Impact Statement that's available on CD-ROM and it is much lighter than the printed document. There is another CD-ROM available that has three technical memos, noise analysis, the property acquisition analysis, and the utility relocation technical memo. All of those three tech memos deal with the three remaining build alternatives.

Also on the table is the No-Build alternative, which I didn't mention. The No-Build alternative if selected moving forward doesn't necessarily mean that there would be no improvement because with the existing truck traffic on Route 9

working to get to the Interstate system there are still needs that would be -- that we would have to meet moving forward with the future increase in traffic. So while a No-Build alternative is a possibility in selection moving forward doesn't necessarily mean that we would not have to look at some type of improvements either on 46 and 1A in the future. So if a No-Build alternative is selected then the Department would have to move forward with those considerations.

Also available on the table is the Executive Summary of the Draft Environmental Impact Statement and some additional comment forms that you can pick up. If you don't like to comment here this evening, you can pick up the form and mail it either to myself or Mr. Hasselmann at Federal Highway Administration. The address is on the back of the form. Thank you very much. Bill.

MR. PLUMPTON: We're going to wind down our opening remarks with a couple other introductions. There are a few other people from the DOT here as well. Bruce Van Note, Deputy Commissioner. If you can stand up, Bruce, or waive your hand so people know who you are. Herb Thomson, Director of the Transportation -- or Department of Transportation's

Bureau of Transportation System Analysis. And then Richard Bostwick, Environmental Specialist, also with the DOT.

Are there any elected officials or are there representatives here this evening that would like to be recognized at this point as well?

AUDIENCE MEMBER: Representative Dave Johnson from District 20, which is Eddington, Clifton, Holden, part of Brewer, Dedham and Bradley.

(Applause.)

MR. PLUMPTON: Thank you. Let me wrap up our opening remarks with a little bit of discussion with respect to commenting. Tonight is a listening session, you've heard that. The DOT, the Federal Highway Administration, and the Army Corps of Engineers are most interested in hearing your comments on the Draft Environmental Impact Statement. And remember, they are particularly interested in your comments that would suggest that there is information missing from the study that needs to be added before some decisions are made.

With respect to commenting there is actually five different ways that you can make your voices known and express your thoughts and your opinions and your comments on this study. Some of you have

already used a couple of those mechanisms. Let me review them for you. You can send a letter. You can go to the DOT's website and use the online comment form. We've got comment forms here this evening that you can fill out and leave with the DOT or the Federal Highway Administration or the Army Corps of Engineers or with myself. There are two other ways. In a minute, you can approach one of the microphones and offer your comments verbally. If you've got verbal comments but you don't want to offer them in public, that's okay, you can approach our stenographer afterwards and offer your comments to her in private. We do have a stenographer here this evening and she is recording a transcript of the comments. All of the comments that are expressed now or delivered to the DOT and the Army Corps of Engineers and the Federal Highway Administration in those other ways, they will all be included in the final Environmental Impact Statement that announces the decision and why and how the decision was made and the thinking behind it. As those comments will be in the final Environmental Impact Statement, absolutely critical that our stenographer can hear at all times, so we need to speak one at a time, have to speak from the microphone, and then if you can start

with your first and last name that would be helpful as well.

A listening session. We'll probably conclude before 8 o'clock today. We've got a little bit more than a dozen people that are signed up for comments. We'll stick around a little bit afterwards for questions and answers. We're going to start with commenting at this point and start with those that signed up. If you didn't sign-up, it's okay, we'll just take you at the end. If you offer comments and you forget to say something, don't worry about it, there will be time at the end, we'll come back to you once everybody who has had one chance to speak has that chance to speak.

With that, what we'll do is we'll call our first commentor and I'll also let you know who is next so you can be preparing your thoughts as well and maybe even coming up to one of the microphones. Our first commentor this evening will be Mr. Adams.

AUDIENCE MEMBER: (Larry Adams.) Would the Town of Eddington like to go first?

AUDIENCE MEMBER: Sure. Allow me to introduce myself. My name is Charles L. Baker, Jr. I was born in Maine and I am a lifelong resident of Eddington and grew up a half-a-mile from here on

Route 9 on Little Meadowbrook Hill where this preferred route 2B-2 is planned to intersect Route 9. As a matter of fact, each one of the three routes comes out at the exact same location.

I was elected to speak to you as a town representative. I am currently an elected selectmen for the Town of Eddington and I would like to welcome our guests. Eddington is a town divided with a range of opinions vehemently opposing and fervently supporting your preferred routes. However, we have come together as a town to ask you questions here and now and would appreciate answers here and now in front of the towns folks and the media hopefully to clarify some issues. And before I ask the questions I would like everyone to know in attendance that there are less than 14 days from today for you to present comments to the MDOT at their website. After that they will not be accepting any public comments.

I would also like to thank the Eddington 395 Connector Group for their hard work and dedication getting the facts in order and for taking the time to educate concerned citizens within the impacted area. And I would personally like to extend my thanks to everyone who participated and contributed to the questions I'm about to ask.

And now the questions. Will you gentlemen be answering any of these questions or will these just go in the record?

MR. PLUMPTON: Charles, thank you. They'll be part of the record.

AUDIENCE MEMBER: (Charles Baker.) Okay. Question 1: How much is this project really going to cost above and beyond the proposed $61 million in 2011 and the mitigation costs and unforeseen costs?

Number 2: The state should be able to show economic benefit and return on spending this amount of money. What is the return on investment? What is the economic benefit to local, state, or country?

Number 3: Do we still need this connector given under the recent discussion on the private tolled east/west highway? **42-1**

Number 4: Who benefits the most from this connector; Canadian truckers or the citizens of Maine?

Number 5: Who will be traveling this connector most?

Number 6: If the purpose of this study is as they stated originally to improve regional system linkage safety on 46, 1A and 9 and to improve current and future flow of traffic and shipment of goods to

interstate, have those purposes changed and when?

Number 7: What happened between April of 2009 and today that went from MDOT's 3EIK-2 or No-Build options to today's three alternatives? We have looked at the DEIS and it doesn't really explain these reasons.

Number 8: One of the concerns several years ago was the number of entrances on the proposed Route 9 corridor, folks going to work, bringing children to school, deliveries, et cetera, which has only increased due to Eddington's development over the last few years. Has your safety concerns changed with this increase of entering traffic onto 9? **42-2**

Number 9: The current truck traffic on Route 9 is bad. With this 2B-2 there will be increased truck traffic and increased safety concerns. How can you demonstrate this additional traffic increase will be safer for our residents? **42-3**

Number 10: Environment. Felts Brook and Eaton Brook both have salmon, so how can we consider further destroying salmon habitat?

Number 11: What about the reported and sighted Canadian lynx in the area?

Number 12: Farmland. There is a lot more farmland at risk with this route than with 3EIK-2,

both active and potential, so is this no longer a concern about losing farmland?

Number 13: They recommend once this route is built that the towns should accommodate by changing zoning and ordinances, which they say they can't make us do it, but they will push hard for it. The DEIS mentions several times that Route 9 will have limited development in the corridor area because we can't have too many entrances on Route 9. Will this affect future development in town with restrictions placed on town zoning?

Number 14: The DEIS mentions that the Town of Eddington will have an estimated reduction in annual tax revenue of $17,800. Each town, Brewer and Holden, with the preferred alternative 2B-2 will lose X amount of dollars. How are the towns going to make up for the loss in revenue? How does the state and fed plan to make up lost revenue?

Number 15: Given that the road has been changed from four lanes to two, please demonstrate how this road will be satisfactory until 2035.

Number 16: At one time, 2B-2 was off the table and now 3EIK-2 is off the table and we've been told 3EIK-2 won't be considered. Why?

Number 17: Is No-Build an option?

42-4

42-5

42-6

Number 18: What will the impact on town services be after this is put in? Emergency services?

Number 19: Has any of the potential emergency service needs been discussed with or approved by all three towns emergency service departments? Is there a need for locked access roads along the stretch? Can they only access from either end to get to an accident?

Number 20: Is the state going to shut Route 46 to truck traffic?

Number 21: If the state gives the towns Route 46 to take care of then how much will that cost the towns?

Number 22: Are they going to leave the DOT garage where it is on Route 9? It is a safety issue as it is when the plow trucks try to turn into and out of that lot.

Number 23: Does the literature show that wildlife crossings are affected? Once an animal goes through and marks it are other animals actually going to use it?

Number 24: The scope of work seems to have changed dramatically, so why don't they have to start this process over?

42-7

Number 25: What does No-Build mean?

Number 26: What does No-Build mean specifically to Route 46?

Number 27: And finally, will Eddington be able to construct new entrances and exits off of the Route 9 connector in the area, for an example, a dedicated business park? Thank you.

MR. PLUMPTON: Thank you, Charles.

(Applause.)

MR. PLUMPTON: Our next commentor will be Larry Adams and that will be followed by John Hutchins.

AUDIENCE MEMBER: I'm Larry Adams from Brewer. First of all, the preferred alternative not being picked yet there is about 50 spots on that DEIS that shows 2B-2/A for alternatives. I was hoping to get some answers. I've sent in 32 questions. I'm sure you've got them all. I come with handouts. I really wanted answers to a few things, but I do want to reiterate a few comments. Back when 2B -- back in 2002, alternative 2B was actually removed twice and the reasons were it would fail to adequately address the traffic congestion needs in the study plan. The next reason was traffic congestion and conflicting vehicle movements on this section of Route 9 would

substantially increase the potential for new safety concerns and hazards. Now, that last sentence goes into traffic congestion and safety and that's basically what you've got with 2B-2, you use that same statement. That's in your DEIS.

And if you go to the original system linkage need they -- we all know what the original system linkage need was, it was supposed to go to Eddington and Clifton. There is also a couple of negative statements in there that should give you an idea of what may happen if you don't have complete system linkage to that Eddington/Clifton that was your original intent of the project. One sentence goes on to say it would negatively affect people living along Route 9 in the study area. The next one goes on to say it would severely impact local communities along Route 9 between proposed alternative connection points on Route 46. So I don't know how you can reconcile the differences in the original statements to today.

There is a history that goes back to 2000. I can quote those all day and I don't know how you can severely impact a community. You can't make believe these don't exist. And to come back up to 2012, if you've got the DEIS summary page 19, this is

a 300 page document and if I had to pick one sentence this says it all: However, future development along Route 9 in the study area can impact future traffic flow and the overall benefits of the project. This project hangs future development of Eddington. I don't see how you can do that to put a project in, a $90 million project and hope Eddington doesn't develop and what happens if they develop? What is the overall benefits of the project? I thought it was safety and I thought it was traffic congestion. So that one sentence there, I just don't get how you can put a project in with that one sentence. I just don't.

And I have plenty of other questions, but apparently -- I was hoping to get some answers tonight. And I'd like to come back if needed, so I will hand it over to the next person. Thank you.

(Applause.)

MR. PLUMPTON: Our next commentor is John Huskins followed by Nancy Calter.

AUDIENCE MEMBER: Thanks. I'm John Huskins here in Brewer. This one thing I wanted to point out that in the -- I think it was the newsletter it was saying that alternative 2B was chosen as the preferred alternative because it best satisfies the

study purpose and need, has the fewest adverse impacts on environmental resources, and has the lowest cost estimate of all of the alternatives. And I just wanted to point out and make sure that the No-Build alternative gets looked at with the same criteria as these other ones because No-Build would obviously have no impacts and no cost, so I just wanted to point that out that that would be the way to go, the No-Build. Thank you.

(Applause.)

MR. PLUMPTON: Nancy Calder to be followed Jerry Goss.

AUDIENCE MEMBER: (Nancy Calder.) I'll pass at this time.

MR. PLUMPTON: Okay. We can come back to you if you would like. Jerry Goss to be followed by Jim Brooks.

AUDIENCE MEMBER: Thank you. My name is Jerry Goss. I'm the Mayor of the City of Brewer and I'm not here to ask questions because I think we've already asked the questions that we have. What I would like to do is sort of summarize where the City of Brewer is. As you well know, the Brewer City Council voted unanimously for a No-Build option and, quite frankly, the reason for that was because of our

citizens coming to the council doing the research, we found out that the route that we felt was going to be chosen was now off the table. We felt that was unacceptable to not involve the citizens in the process isn't the way things should be done. That was the reason for the Brewer Council taking the action that it took and it appears that maybe that actually did some good because since that time there has been an awful lot of conversation. Conversation that should have taken place a long time ago. And I will give DOT credit, they did take ownership in their mistake and they admitted the error and I think they have made attempts since that time to correct it, so I just wanted to let you know where we have come from.

Where are we right now? The City of Brewer would like to make sure that you understand we would like to continue to be involved in your process, have input in your process, and be a constructive part of getting the job done whatever that may be in the best interest of the citizens of the three communities involved. We're not looking at it just from Brewer citizenry but for the three communities in particular. So we would like to go on record as saying we'd like to be involved in the future.

Right now it appears that we have or we are looking at several options. One is we accept the 2B. For us, 2B does not meet the standards that were originally proposed for the project. It is a less expensive route but it does not do what the original project was designed to do.

Secondly, you could go back and look at the so-called ring route, the route that everyone felt that the route was going to be selected, and see what, if anything, can be done to deal with the issues particularly around issues from the Army Corps, which appears to be the main reason for doing away with the ring route.

Third is to continue to look at is there another alternative which will get the job done as originally designed and help relieve the traffic flow on Route 46, on Route 9, and be beneficial to the communities in this area economically because I think that's a question that the gentleman from Eddington asked is is this going to be economically beneficial to our communities in this area. Yes, we're concerned about the entire state, but obviously how is it going to impact us and our financial position as we develop budgets.

The fourth option obviously would be

No-Build. The decision is going to be made at your level. I will reiterate we simply want to continue to be involved wherever we can to come to a solution that's going to meet the needs as initially determined and to take care of the human factor in this equation. We believe in the environment. We understand vernal pools. We understand those issues, but from the very beginning we felt as though the human element for the citizens of Brewer was ignored and not taken and placed in the proper order on the checklist. So I thank you.

(Applause.)

MR. PLUMPTON: Joan Brooks to be followed by Jerry Diambrose.

AUDIENCE MEMBER: I'm going to pass. He covered everything, Mr. Baker.

MR. PLUMPTON: Very good. Following Joan, Don Mackenzie.

AUDIENCE MEMBER: (Don Mackenzie.) I'll pass.

MR. PLUMPTON: Joan, come on up.

AUDIENCE MEMBER: I'm Joan Brooks. I'm Chairman of the Board of Selectmen in Eddington and I have been asked to hand this to the DOT. We, the citizens of the Town of Eddington, in the County of

Penobscot, in the State of Maine, do hereby protest the I-395/Route 9 connector project proposed preferred alternative 2B2 route and other alternatives, and it lists them, as mentioned in the Draft Environmental Impact Statement submitted March 2012. And by affixing our signatures below let it be known to the Selectmen of the Town of Eddington, MaineDOT and all others that we do not support this project and request instead a No-Build option. Said No-Build option to truly means No-Build anywhere within the entire original project study area. There are 390 signatures, people in Eddington on this, and I am handing it over.

(Applause.)

MR. PLUMPTON: John Williams to be followed Jim Russell.

AUDIENCE MEMBER: Jim Russell will pass.

MR. PLUMPTON: Gretchen.

AUDIENCE MEMBER: After these last few people I don't really have a lot to say, they've done a real good job. My name is John Williams, resident of Clifton for 42 years. We all know a new road will be built where and when the state decides, not us as the people. The Environmental Impact Study, the issue here today or is supposed to be, I believe the

most important part of our environment should be the people not vernal pools.

(Applause.)

AUDIENCE MEMBER: (John Williams.) The state builds our roads and building them with the safest possible intersection should be more important than a wetland being displaced. If we went around all wetlands in Maine we would not have most of the roads we use today. I vote to fill the mosquito hatcheries and save a human home. Humans and their safety should be first priority. Thank you.

(Applause.)

MR. PLUMPTON: Gretchen Heldmann.

AUDIENCE MEMBER: Gretchen Heldmann. Hello, all and thank you for holding this public hearing. It is apparently our one chance for all communities involved to voice concerns regarding all the changes that have taken place since the last Public Advisory Committee meeting of 2009. I live right across the street. If this connector is built, I could stand to see some benefit such as reduced traffic in front of my house, at least that's what is proposed. However, I moved to Route 9 knowing full well it was a very busy state road and there would be traffic including a lot of big trucks. So to me, this connector isn't

something I want or am looking forward to in order to reduce traffic in front of my house. No, in fact, I care more about our community of Eddington as a whole and I believe that this connector may have the single largest impact to this community in a long time. I care about this community. I volunteer regularly at Comins Hall and I serve on the Planning Board. I also care about the folks living on Route 46. It is a dangerous road and something needs to be done, but I believe this connector is not the answer. This connector shifts the problem from one area of town to another. I also believe that the protected corridor that's proposed, which is basically from where the connector hits Route 9 just down the road here out to the Clifton line will end up destroying our community. While the state cannot force the town to change its zoning, they are the ones that administer permits for driveway and road entrances onto Route 9 and they could very easily decide to not grant any more permits in order to protect the corridor and maintain capacity to the end of the study period.

I have some questions and comments about the process over the last few years since the last PAC meeting, which, again, was in April 2009. At the April 2009 meeting, which I attended, the PAC agreed

that 3EIK-2 was their preferred route and they agreed to dismiss 2B-2 because it did not meet four out of five study criteria, but they were told the Army Corps of Engineers wanted to retain it. They still wanted to retain this route after knowing since at least 2002 that the route had very little public support. The PAC was told that vernal pool data was acquired and plotted, but no one saw any vernal pool maps until a few months ago. Keep in mind that the PAC had also been involved in the decision-making process for about a decade prior to that April 11 meeting.

As it turns out, after that meeting and unbeknownst to the PAC, 2B-2 was fully put back on the table and chosen, not by the PAC, as the preferred route. The vernal pools had not only been mapped, but it had already been determined there were too many along the PAC's preferred route of 3EIK-2. Apparently the work our friends and neighbors had put into the PAC for the last decade was of no importance and has been completely disregarded. The public process in general has been completely disregarded since April 2009, which goes against the MaineDOT's own public involvement plan document, which lists nine things the MaineDOT is committed to: One,

informing the public; two, proactively seeking and encouraging the public's early and continuing input and participation when developing policies, plans, programs, studies, projects, operations, and maintenance activities; three, adhering to the principles of Environmental Justice and Title VI of the US Civil Rights Act; four, being consistent with the MaineDOT Strategic Plan and the objectives of Connecting Maine, MaineDOT's statewide long-range multimodal transportation plan; five, improving customer service through training and effective external communication with stakeholders and the public; six, enhancing public awareness and participation; seven, being fair, responsive, and accountable to traditional and non-traditional stakeholders; eight, communicating effectively with the public, and; nine, making the best possible transportation decisions to effect an efficient multimodal transportation system that meets the MaineDOT mission and needs of the people of Maine.

It seems to me the theme there is public involvement, since six of nine of those points relate directly to communicating with and involving the public in the process.

Earlier this year, a series of questions

were sent from Senator Susan Collins' office to the MaineDOT for question and answer. Quote, MaineDOT will schedule a meeting with the PAC to update them on the decisions that have been made subsequent to the last PAC meeting. The PAC meeting should be scheduled within the next four to six weeks. Subsequent to the PAC meeting MaineDOT will schedule and hold meetings to update the municipal officials in the four affected communities. These meetings should be scheduled a few weeks after the PAC meeting, end quote.

None of that ever happened. Instead, we have been asking for information for months and it has only been provided after much pushing for Freedom of Access Act information requests. Both the website that hosts the study info and the MaineDOT Interagency Meetings website were years out of date and were not updated until I made a FOAA request for two years worth of Interagency Meeting notes and vernal pool information to try to understand the process over the last few years and also look at the data to back up the vernal pool maps.

Let me talk about vernal pools for a moment. I have attended multiple vernal pool training workshops led by Dr. Aram Calhoun. There is a very

specific process to assessing vernal pools with a detailed data sheet to fill out put together by the Maine Department of Inland Fisheries and Wildlife and the Maine Department of Environmental Protection titled Maine State Vernal Pool Assessment Form. It's a two-page form. There is also a Vernal Pool Observer Credential/Project Contact Form to list contact info and describes how the person is qualified to assess vernal pools. There are four main indicator species to look for, wood frogs, blue spotted salamanders, spotted salamanders, and fairy shrimp.

The MDOT did not use the Maine State Vernal Pool Assessment Form nor did they use any sort of standard method to gather vernal pool data. I asked for copies of the vernal pool field data sheets as part of my FOAA request and what I got was a mish mash of their own version of field data sheets and field notebooks with pages ripped out. When I asked about the discrepancy between MDIFW/MDEP and MDOT's ways of collecting info and whether they had looked for fairy shrimp since I saw no mention of them anywhere I received the following answer: Quote, we didn't look specifically for fairy shrimp and we did not make a big effort to look for them. If we had

43-1

seen them we would have reported them. In terms of how our effort fits into the MDIFW requirements and the simple answer is that it doesn't and is not meant to. We have no plans of submitting any data collection forms to MDIFW as we don't own the land. When we identify an alternative and purchase rights of way we will re-census the new rights of way only and submit any necessary data from to MDIFW.

I do not understand how one state agency is able to follow a different set of standards and guidelines than another. Please explain.

There are also guidelines regarding land owner permission to enter onto someone's land to map vernal pools and I quote from IF&W guidelines, can a significant vernal pool be documented on my property without my knowledge? No. MDEP and MDIFW have a strict policy of requiring land owner permission before any pool is assessed or mapped, end quote.

This question regarding access was also asked at the very first PAC meeting in 2000, resident or a member asked: How will you gain access to property for study? Response: We do GIS tracking now. There is no access to property until later in the study and we will secure permission.

However, it seems that land owner permission

43-1

was not secured by the MDOT when they went out to map vernal pools. They provided the following response to me via email: Quote, pursuant to 23 MRSA Section 701, employees of the Department are authorized to the extent necessary for surveys and preliminary engineering to enter and cross all lands within, adjoining, and adjacent to the area to be surveyed. There is no requirement that DOT personnel obtain permission from land owners to conduct these preliminary engineering activities.

So the question is if vernal pool assessment and mapping counts as surveying and engineering and the MDOT knew this all along then why was the PAC mislead regarding land owner permission?

I also have an interesting note I came across in some of the FOAA information I requested from the former project manager's notes or through the GIS as mentioned of fragmented habitat and habitat walks and the quote is: If to our benefit use it as fragmented; if not, explain why not. If to our benefit use it as fragmented? Where is the scientific methodology behind that?

Noise mitigation. The DEIS discusses noise mitigation options for indirectly affected residents. It states that the MDOT has a guideline of not

spending more than $31,000 per benefiting receptor, which means a single residence or business, which is based on spending $31 per square foot to build a noise mitigation structure. The DEIS concludes that because the range of expenditure per benefiting receptor is from $194,168 to $1,043,724 that the costs outweigh the benefits so they are not going to do it. What they do not provide that I could not find are totals, what is the total actual cost to mitigate noise for each route? At the open house this afternoon I obtained a disc of the noise technical memos and I was told I could add up the figures on page 13 to obtain the total cost for noise mitigation. I did. I added up the numbers for 2B-2 and came up with $8.7 million. $8.7 million to protect the blood, sweat, tears, and dollars that the tax-paying citizens of this state have put into their homes, protect all that from a connector that is going to negatively affect the noise levels on their properties, which will in turn negatively affect their property values. However, MDOT is perfectly fine with spending upwards of $4 million for mitigation of direct impacts to wetlands and vernal pools. At PAC meeting number three the group agreed their top three priorities were number one, safety;

43-2

number two, travel efficiency; number three, neighborhood integration.

Neighborhoods are not being integrated if noise is not being mitigated. Please reconsider your priorities and the need for noise mitigation.

43-3

I also still do not understand the removal and reinsertion of 2B/2B-2 and how it meets the criteria.

February 2002, MDOT Alternatives Narrowing Process: Quote, to improve regional system linkage, an alternative must provide a limited-access connection between I-395 and Route 9 east of Route 46. Alternatives that do not provide a limited access connection to Route 9 east of Route 46 would not provide a substantial improvement in regional mobility and connectivity and would negatively affect local access. Alternatives that would connect to Route 9 west of Route 46 would severely impact local communities along Route 9 between proposed alternative connection points and Route 46, end quote.

February 2002, PAC: Quote, Bill Plumpton gave an overview of the MDOT process of review and logic to reduce the number of alternatives for final comparison and detailed analysis. To fully satisfy

the study purpose and need of improved system linkage Bill said an alternative has to tie into Route 9 east of Route 46. For these reasons, MDOT removed Route 2B from the alternatives, end quote.

May 2002, PAC: Quote, the agencies want to keep 2B because it could be practicable in accordance with the law. Bill Plumpton defined practicable as available and capable of being done after taking into account cost, existing technology, and logistics in light of overall purpose, end quote.

July 2004, Handout: MaineDOT and Federal Highway have selected 3EIK-2 as their preferred alternative, but the Army Corps of Engineers is also soliciting comments regarding a second alternative, 2B-2, end quote.

And my question is what changed? I keep asking this question and I even did a FOAA request to find this out and still do not have an actual answer. Where are the data? Where are the analyses? Charts? Graphs? Regressions? Just because too many vernal pools were found along 3EIK-2 does not mean that some magic dust was sprinkled on 2B-2 and Route 9 that suddenly make it meet the needs that is like comparing apples and elephants. Further, what is the point of developing a study purpose and need when it

appears it will all be trumped by cost, existing technology, and logistics?

Is this connector still even needed? We have not seen a big boom in the economy as of late. In fact, the opposite has happened, so why do we need to push this through without having given the PAC a chance to comment on all these changes? Speaking of changes and the economic downturn, the DEIS acknowledges the economic downturn but continues to use traffic count data numbers from before the downturn. Numbers from after the downturn need to be included in all analyses now to determine if the connector is still needed, what the design should be, design year, et cetera. The study year was changed to reflect the downturn moving it out five years to 2035 from 2030. Where did that five year change come from? What data support a five year change? Why aren't more recent traffic count numbers being incorporated into analyses?

43-4

Last page. Safety. What is the cost of a Maine life? I would wager it is worth far more, priceless in fact, than the cost to install a barrier to divide these proposed two lanes of highway traffic. The cost should absolutely not be prohibitive in this case. $4 million spent on

wetlands and vernal pools, but we cannot spend $4 million to install some sort of divider that could potentially save a life? Last summer we lost a few lives on Route 9, some right at the very bend where this connector is proposed to connect to Route 9. The sheriff has clocked people going in excess of 90 miles per hour at that same spot. There are school bus stops there. Where this connector is proposed to join Route 9 is already an unsafe location. Turning it into an intersection with traffic flying off the connector at 55 miles an hour or more and merging directly into our rural area with a business entrance right there and school bus stops just does not make sense. Making everyone that commutes from outer Eddington, Clifton, Amherst, Aurora, and beyond now have to use a stop sign intersection continue onto Route 9 to make their way to the University, hospitals, or other places or work in Bangor and beyond does not make sense to me and will cause a daily commute nightmare. I drive Route 9 every day and when I get into Bangor the majority of the daily commuters I am in line with take that first bridge to connect into Bangor. Not so many follow me to I-395 to get on the highway and I only get on the highway to cross the river.

In closing, time and time again, the state continues to provide band-aid fixes to serious problems with our infrastructure because of cost. This connector is nothing more than another band-aid fix going with the lowest cost option, except for the No-Build, that makes the least amount of sense just so the state can say, what, they did something and by golly they created some jobs, too. Yeah, and another stretch of road that will be inadequately maintained and cost us even more money into the future. A stretch of road and protected corridor that will destroy our community of Eddington, impact hunting and snowmobiling and other forms of recreation that nobody has even talked about. By the time the damage is irreversible the state will be looking again at a connector to bypass the connector. While something does need to be done about traffic on Route 46, shifting traffic to another road in town is not the answer. It does not meet the original criteria of providing a limited access connection between I-395 and Route 9 east of Route 46, this alternative would not provide that connection, would not provide a substantial improvement in regional mobility and connectivity and would negatively affect local access. This connector is not the answer and it is

certainly not good for the entirety of the residents of the Town of Eddington. Thank you for your time.

(Applause.)

MR. PLUMPTON: Ben Pratt to be followed by Tom, forgive me, I can't read the last name, from the Planning Board is here. Ben Pratt.

AUDIENCE MEMBER: (Ben Pratt.) I've got to follow Gretchen? You're kidding me. Thank you very much. I'll be quick. I think Gretchen certainly reiterated most of my concerns that I came with here tonight. My name is Ben Pratt. I live in Eddington. I grew up actually off of 46, so I can certainly sympathize with the folks over there and sympathize with the original goals of this plan, which as we just heard, you know, made sense to a lot of people. This is why we're so confused about the new preferred route, at least me personally.

I live now right where your new connector is supposed to come on in, bulldoze my across the street neighbor's house and then dump truck traffic pretty much in this beautiful arc that the lights and the jake brakes shine right in my picture window if you were trying to head back towards town coming off of your new route, so I obviously have a little personal interest in this. But I think from my experience in

both working the public safety here in town and other necks of the woods and in my time that I served in the Legislature I -- I'm really questioning the process and I'm obviously upset about that for all of the reasons Gretchen just mentioned and how I feel like a lot of these towns have felt we have been out of the loop since 2009 and all of a sudden what I think the term was magic fairy dust got sprinkled down on a route that we long ago thought was off the table. And to be honest, I think most people who know me here, I'm a vernal pool guy, you know what I mean. I like vernal pools. I want to see us protect vernal pools and I don't apologize for that. So I can understand and appreciate work going towards trying to mitigate environmental impacts on the way that we do things and I think that's important and I think we should continue to do that. I just think it all comes back to me right now in this idea of this now the proposed route that -- the preferred route is it's a solution in looking for a problem. We have a problem, this doesn't meet it, so we're using an environmental aspect to push it down on us and that frustrates me and that angers me in some ways and I'm a little frustrated.

You've heard about these bad wrecks that

we're having in Eddington. I've been on them a lot. I've seen too many dead people from people from car wrecks on Route 46 and on Route 9 and I don't want to see any more of them. I don't see how adding this preferred route and dropping traffic off 395 right onto Route 9 at the bottom the Meadowbrook Hill how that benefits anyone's safety, people on 46, people on 1A or certainly people on Route 9. I think you need to look more at that. You want to talk about, you know, things you need to look at, the safety aspect for me is huge. The school bus stops right there at the -- right there today I was sitting in my dooryard sitting raking up and trying to do some spring cleaning, I promise I'll get it cleaned up eventually, but people coming down off the Meadowbrook Hill, trucks coming down off the Meadowbrook Hill hammer down off Meadowbrook Hill Slowing down trying to, you know, coming right up on the back of a little minivan right there because they've got a school bus stopped pretty much right in front of my house. That's every time you go down Route 9, you know, keep heading towards 46 and you're going to see that every single time, you know, and it's not worth it. I just don't understand what we're trying to accomplish here. It's not worth it.

44-1

My personal opinion is No-Build is the cheapest, No-Build is the least environmentally destructive, and No-Build keeps our community put together. I don't want to see our community divided physically, you know, we're already divided ideologically in a lot of ways and we don't need to be divided physically right smack down the middle of this road. It's not worth it. It's not good for this community and I don't see what the greater good is.

I spent four years of my life busting my tail down in Augusta for the greater good, what I thought was really truly working for the greater good, and if I thought for an instant that this road building was going to be somehow greater for the greater good of the state, greater good for my community, greater good for -- I'm will to take some hits. I'm willing to have some of it dumped out in my dooryard if I honestly thought it was going to be better for a whole lot bigger group of people and I fail to see it.

So I appreciate you coming and listening to us and taking it. I'm sure you're going to get some more tonight and I'll be sure to write something to you in writing, but environmental impact, absolutely

continue to work on that, continue to look at that and you're going to come to the conclusion and I think everybody will, and it's already been said environmental impact, minimal environmental impact is not really a giant road across Brewer, Holden, or in Eddington. That's not the least environmental impact.

Public safety, I don't want to see -- I don't want to see bad wrecks. I'm sick and tired of seeing bad wrecks. This doesn't seem to do anything to help that. Certainly bringing something this side of 46 doesn't even meet the original project goal and that's why we're confused and frustrated. Thank you for your time and I'll let other people talk, but have a good night.

(Applause.)

MR. PLUMPTON: Tom to be followed by Judy Sullivan.

AUDIENCE MEMBER: Hello. My name is Tom Vanchieri. I'm the Chairman of the Planning Board. I'm here to read you a statement from the Planning Board, which I might add is unanimous.

The Town of Eddington Planning Board opposes the MaineDOT's proposed alternatives to connect I-395 to Route 9, including 2B-2, 5A2B2-2, 5B2B-2, and the

K loop options as mentioned in the Draft Environmental Impact Statement. The Public Advisory Committee, general public, and other town officials have not been involved in the decision-making process since April 2009 when the Public Action Committee dismissed 2B-2 as an option. The Eddington Planning Board is concerned over the impact of the proposed alternatives on the economic development and growth of the town due to the Draft Environmental Impact Statement's description of protecting the corridor from further development, which is in direct opposition to the Town's Comprehensive Plan and current zoning. Further, the Eddington Planning Board feels that any decisions on this connector are premature given the recent decision to study the east/west highway as the results of that study may render a connector pointless. The Eddington Planning Board hereby states firmly that they do not support the proposed connector alternatives and suggest the options be withdrawn and then taken back to the Public Action Committee for further consideration and involvement in a more public, open, and transparent process. Thank you.

(Applause.)

MR. PLUMPTON: Judy Sullivan to be followed

by Rusty from Eddington.

AUDIENCE MEMBER: My name is Judy Sullivan and I am one of the people that as a public person has been following this for a long time. I faithfully attended the meetings from the time you started in 2000 even before the PAC was formed, it was a meeting at the Holden School, so I've followed this. And just to clarify a few things for people, the scope of this project initially included safety on Routes 9, 46 and 1A. Somewhere between when that scope was first written it has been amended. It has been changed. And it now says we're concerned about safety on Route 46 and 1A.

Now, I may be simplifying things a little bit, but my mind says to me that the only way 2B-2 could have been considered and could be a valid alternative was to remove safety on Route 9 as part of the scope, which I find really disheartening because as other people have said to you in your own -- we can go on and quote even more comments that have been made over the years about the effect and the negative impact of using Route 9 as part of this connector on safety. Other people's concerns, traffic congestion, your putting vehicle movements on this section of Route 9 would substantially increase

the potential for new safety concerns and hazards. Now, if you read their study they'll tell you and somewhere along here they say that safety could mean a lot of things, but for the purpose of this study it only means one thing, crash prevention. Now, if that's the case, are you concerned about the fatal crashes we've had on the Route 9 intersection of road? Do you want to prevent those crashes or do we only want to prevent crashes on Route 46? That would be one question I have of you because the safety has been repeatedly and repeatedly mentioned by your own people involved in this study. These are quotes from people on your side of the table, not from people in the PACs and the committees, on your side of the table about safety. And then add to that that even in their own records we read this DEIS study traffic congestion, traffic on Route 9 if 2B is chosen -- 2B-2 is chosen and by the year 2035 that means about 20 years by the time they get the darn thing built that traffic flow on Route 9 will be rated E. E. Couldn't get any lower. No, excuse me, it could be an F, but we're all the way down to an E. If that's so, where do we go from there? In 2035, by then people's houses would have been -- they would have been moved out of their houses, people left behind

will see their property values go down because of the proximity to all of this. Because, again, they changed that, that's another thing they changed in their little plan, would go down and we'd have this big black scar across our landscape.

People on Route 9, you've heard a lot about us, but I also feel equally concerned for the people who live in Holden and in Brewer who currently live in neighborhoods who don't experience any kind of traffic like they're going to be seeing on this route. What about them and what about the values of their homes and what about their well-being and what about their happiness and enjoyment of their property? It's already been ruined and we have a road that doesn't work any more. So I don't care if you spent $60 million or $80 million or $100 million on this road, for 20 years that's a pretty expensive road, and if it doesn't work at the end of 20 years and then what are you going to do? Do we then decide that maybe we're going to make Route 9 wider so we can accommodate this traffic that's supposed to come? That really bothers me because what happens at the end of those 20 years if it's only good for that period of time? It should bother everybody. Taxpayers. Because I don't care where this money

comes from whether it be the federal government or the local government or state government, it's our money. And it needs to be spent in a financially responsible manner and I don't feel that this is a financially responsible manner.

Another thing I think you need to understand is about vernal pools. The requirement for vernal pools from the state is very specific, but as far as the Army Corps of Engineers is concerned, if there is a puddle of water in the spring of the year, they don't care if there is anything in it basically. They may consider that, but they don't have to. It just has to be a puddle of water on the ground in the spring of the year and they just call it a vernal pool. They don't care if it's significant. That's Maine DEP. The Army Corps of Engineers doesn't care about it. So vernal pools becomes -- it doesn't have to be significant, it just has to be wet spots in the ground. Again, which bothers me.

Again, 3EIK or whatever the heck it is, which is the original -- which, by the way, most of us walked away as late as 2009 thinking that was the chosen route. Many of us made plans based on that in our homes, you know, so be it. I've been told that that was eliminated because of two things, the vernal

pools, which everyone has discussed, and the other is it was going to go through a track -- a fairly large track of land that was whole and that would be -- we went -- they didn't like to fragment these pieces of land. In reality, the road that I saw on that particular piece of land I believe would have taken a corner of that land and left the majority of it in tact, so it wasn't a complete demise of that piece of land. One of the things which I consider especially ironic about that particular decision on the part of the Army Corps of Engineers is that the Army Corps of Engineers is also pushing that that particular piece of land be used to mitigate environmental impacts on Route 2B-2. I have -- my mind is having a hard time getting around that one and I'd like to know more about that.

But more importantly, way back in 2002 when all of the 2B alternatives were being chosen, they were looked at, there were several of them, by the way, lots of families, and 2B was rejected at that point in time because of traffic congestion on the route and increase of potentially new safety concerns was rejected. Along with the other 2B alternatives, and these 2B alternatives, these families were all fairly close together, they were kind of swooping

around one another but they were all basically in the same area. And all of the remaining 2Bs, and there were several of them, by the way, were -- even though they would be practicable, remember Mr. Plumpton's definition of practicable, they were dismissed and all of them were dismissed because of environmental issues compared to 3EIK-2. They would have more -- all of the 2s would have more water crossings, some of them possibly with the salmon, the diadromous fish as we should be concerned about, have great impacts to flood plains, would have great impact to active farms and also prime farmland, would have greater residential displacements, would have greater proximity displacements, and I haven't seen anything in the new reports that I've read about proximity impacts and I think that's a vital thing because originally I think the proximity impacts were a much greater distance. They've been shortened up. The right of way that was going to be purchased originally for this was going to be 1,000 feet. That's the original plan. They've shortened that quite a bit. I think they're down to a right of way of 200 feet and what does that mean. Property that would have been -- it's going to be cheaper because they're not going to be buying property. They're

just going to plop the road down in front of it.

So you can win this battle one way or the other. I just think that -- I guess what I'm really upset about, I cannot get out of my mind when I was at that very first meeting and somebody -- a young man that lived on Route 9, excuse me, Route 46 said that the answer was just to put all this truck traffic -- oh, by the way, the truck traffic by 2035 is going to more than double in that timeframe is what we're really seeing. Anyway, the answer was just to dump that truck traffic onto Route 9 because we were used to it. Those of us who have lived on Route 9 for any length of time would say we kind of question that a little bit. And I think people forget, my house that I live in on Route 9 and my house -- my driveway, when my house was built my driveway was level with the road on Route 9. Level with the road. Now for me to get out of my driveway I believe I have probably at least a 6 foot or 8 foot rise to get out of my driveway. That's how much Route 9 has changed since it was in the 1960s. Change takes place. Traffic increases. Things happen. Change takes place. We've all experienced that on Route 9, but the big change and the change that was a catalyst for all of this was NAFTA. NAFTA

was passed and in late -- early '90s, I believe. That is when we started seeing the increase in truck traffic. I think all of us would have lived with an increase in car traffic because we were seeing cars come in the summertime and people going on vacation or going to their camps in Clark's Pond or whatever and even further Downeast, but it wasn't the big trucks. And now -- now we don't have to worry about 80,000 pound trucks, now we can worry about 100,000 pound trucks. Most of us drive vehicles that don't weigh 6,000 pounds. It's a losing battle, not to mention the noise that we're going to be subjected to. It doesn't matter where you live on that stretch of road there you're going to have a big increase of noise and it's already pretty bad. But for that person to have the attitude that it was okay to shove it onto Route 9 because they were used to it, we're no more used to it than they were. It was new to them. It was new to us on Route 9 that level of traffic. And I think you need to stop and think about, you know, is it worth spending this money and the people only benefit -- real benefit and no offense to people that live on Route 46, I wouldn't say that to you. I am concerned about your safety, but change happens. The remainder of Route 46 from

Route 1A over to Route 15 has all rebuilt. Change happens. Maybe that's the solution. I don't know, but do I know that to deliberately knowingly to devise a route that jeopardizes the lives of people who live on Route 9, people who travel Route 9 doesn't make sense and you can't make it work simply by changing the scope. That's a cheap trick.

(Applause.)

MR. PLUMPTON: Rusty from Eddington to be followed by Bruce Pratt.

AUDIENCE MEMBER: My name is Rusty Gagnon. I am a resident and property owner in the Town of Eddington. And actually my brothers and I grew up here from way back in the '40s and we won't talk about much more than that except that my youngest brother currently lives on the property that our grandmother purchased in the '20s, so we have been here a while. I can remember when my brothers and I used to be able to walk from what is now called Squirrel Lane down to the store that is now called Tradewinds, we could walk along the main road and we didn't have to worry, our parents didn't worry about us. I wouldn't have any child walk that distance now.

I strongly oppose the I-395/Route 9

connector project for the following reasons: Eddington has historical significance in Maine's history. We just celebrated the town's bicentennial. Route 9 originally known as the Airline Route is part of that history. Data from current use of Highway 46, and I have this from a neighbor of mine who has access to the data, supports that a projected truck traffic increase of four to six times the current Route's 9 use will take place if this connection goes forward as planned. Four to six times than we're currently experiencing. And I'm on shoreline property, so I have enough DEP regulations to choke a fish with. Neither the big rig trucks nor the Canadian car traffic currently recognizes our posted speed limits, 35 to 45 miles an hour or the 15 miles an hour within certain boundaries close to the elementary school at certain times and we've got some deputies here who can probably attest to that. The projected traffic increase will necessitate doubling or tripling our contracted law enforcement. The town taxpayers will recover none of that cost. Traffic violation revenues are split between Penobscot County government and state government so we may be putting out $24,000 a year in contracted law enforcement and vehicle traffic, but we're going to get none of it

back. Increased traffic will result in more engine oil surface runoff resulting in more ground soil and water pollution in Davis Pond and we already have water erosion thanks to the height of Route 9 right now. My brother has half of his property that is totally destroyed by water erosion. And I have pictures of it going straight into Davis Pond. And behind Troy Grather's house you don't want to even think about how many trees have been uprouted totally because of the water erosion and now you're going to add even more soil and oil from the trucks.

Shoreland residents have been working very diligently to improve the water quality in Davis Pond over the years to bring back better fishing, fowl life, and recreational quality for the people who use it not just the people who live there. Your project is not going to help the cause at all.

We have an elementary school and a middle school and students who are bussed to Bangor, Brewer, and surrounding area high schools. This requires a daily minimum of nine busses, and that's my conservative estimate, on Route 9 making frequent stops at least twice a day. In the winter months it is still dark when the busses pick up the children at their driveways and close to dark when the children

return. The projected increase in commercial traffic will increase the danger of everyone particularly the children walking along the side of the road. Winter weather conditions only add to the danger especially when DOT leaves large snow deposits at the end of our driveways and we can't get through it.

With the additional traffic the school bus stops will create a lager neck. Impatient and inattentive drivers will try to bypass the school busses or may hit them. Designated periodic school bus pick-up and delivery stops are not acceptable because of the ages of the children. They need to be dropped and pick up at their driveways. Route 9 is our main street. It's not just Route 9. It's the main road. It was always the main road even before it became Route 9. We do not have sidewalks. Our residents use it to walk, bicycle, and jog. There is even a bicycle run that starts from Eddington School this weekend. During summer months large bicycling groups use Route 9 for their trips. None of these activities will be safe with the projected increase of traffic. Our weekly trash collection requires residents to place trash containers and bags alongside Route 9 where the trash truck collects them stopping at each driveway. Many of us have to load

the trash into our cars and trucks and drive it up to the frontage road at the top of our driveways, the end of our driveways for it to be pick up. As it is on windy days the increased wind caused by large trucks frequently blow the trash, the trash bags in particular down into the wooded property or out and across the roadways. I have myself more than once had to chase a bag. It will be worse, possibly fatal, with projected increase.

In recent years, the Eddington Planning Board, the town's Board of Selectmen, and voters approved a Comprehensive Master Zoning Ordinance which complies with all of the mandated State of Maine regulations including environmentally protected areas. I went to many of the planning meetings to look at where the water was, where we could, where we couldn't, where we did, where we didn't. This project will destroy the Master Plan. We are a rural agricultural community by choice. As such, we have a limited but essential business tax base. The conditions laid down by MaineDOT significantly affect the towns' ability to retain and encourage businesses in those areas zoned for commercial and in industrial business purposes. The remaining property and business owners will end up being taxed at a higher

rate to recover those taxes lost because of the connector. Insisting property owners in the areas designated to be sold to only MaineDOT will also be negatively impacted. Many cannot afford to move. Many are retired and living on fixed incomes. Many have horses, cows, several pets, et cetera. MaineDOT will never pay what the homes or the properties are worth to the current owners. Eddington residents have established central support resources in Bangor and Brewer such as doctors, grocery stores, dry cleaners, churches, hospital, et cetera, to which they can afford to drive. You should know there is no public transportation that serves Eddington. Moving into or further away from Bangor or Brewer is not financially feasible for these individuals. Additionally, the increased traffic will be dangerous for many of our senior citizen residents to drive in.

Eddington's property tax rate is already high. For shoreland property owners it is higher still, I can attest to that. The state does not pay its full share of the school district's annual cost, thereby forcing property owners to pick up that portion which the state does not. And that's already.

For reasons stated above the I-395/Route 9

connector project will reduce home property values at the same time it will increase property taxes. Collectively these items that I have mentioned will kill the Town of Eddington. While the town does not need the connector project it cannot survive with it. The project plans to eliminate important wetlands. How DEP approved this plan amazes me. It will affect the area's animal wildlife, deer, red fox, raccoons, porcupines, wild turkeys, skunk and an occasional bear. And I've had all but the bear in my backyard, but John has had one. Migrating fowl, ducks of numerous varieties, Canadian Geese, that's the only thing in Canada I appreciate having here, and the loons that live on Davis Pond and the migratory birds. It is our understanding that agreements were reportedly made between MaineDOT and the Town of Brewer at the time the I-395 ramps in Brewer were constructed protecting the remaining area wetlands. Somehow this project appears to violate that agreement.

The project brings no permanent or long-term financial benefit to Eddington. Just like when Route 9 was reconstructed two years ago, contracts would go to companies outside Maine. That job went to New Hampshire. Moreover the workers, though temporary,

will not come from our area either. This project brings absolutely no benefits to Eddington. None. With the strong possibility of the privately funded east/west highway, which will have area off-ramps not included in your project, the connector project may never be needed. At the very least until the east/west highway is completed and traffic needs re-evaluated the I-395/Route 9 connector project should be shelved. From the perspective of using tax payer monies, which is what state and federal funding is, the State of Maine would be better off using the funding to repair current roads and bridges. Highway 15 from 1A to Stonington is a good example or local area streets with potholes that go to China. It is not beneficial creating something neither needed nor wanted. My taxes go into whatever funds are being targeted and I know that this is not a good use of my money.

Please consider these arguments presented and know that I am speaking not only for myself but also for the households of my two brothers who, too, have year-round homes on Davis Pond. Our driveways are directly off Route 9. I can see and hear the current truck traffic and the increase is intolerable. My neighbors feel the same. Thank you

very much.

(Applause.)

MR. PLUMPTON: Bruce Pratt to be followed by Susan Swain.

AUDIENCE MEMBER: I'm going to take a little bit different approach. I'm Bruce Pratt. I live just off Route 46 and for the last 20 years I've driven on 46 most every day. If the DOT builds some damn shoulders to begin with the road would be a lot safer, so I really think we lose sight of things sometimes and that's what I want to talk about. If you build it, they will come. The worst thing we can do is encourage more traffic by building a faster way to get that traffic here. I mean, that's counter-intuitive. I'm an English teacher. I'm not an engineer, but I know it's counter-intuitive. And also the last time I spoke at a meeting here aside from wearing all purple and white today just in consolidarity with my friends from Brewer. And I mean that about the consolidarity. This is about our neighborhood. It's about where we live. This road is not going to go through my property. It probably is not going to cost me any money, but it's going to hurt my neighbors and friends, the people that my children grew up with, the people I live with, the

people I see all of the time, and so therefore, I'm so strongly against this for a couple reasons. This is twentieth century thinking in the twenty-first century. We don't need more highways. Maine has too damn many highways now.

(Applause.)

AUDIENCE MEMBER: (Bruce Pratt.) We have two interstates that were built and they were completely stupidly constructed. We could have had a connector from Lewiston, but no, we had to have a separate -- whole separate interstate. We are dying under the weight of our infrastructure. We can't pay to fix it. We have a political climate where the thought is we can't bond a great deal for that. I'm not an expert on that and I'm not taking a position on that. We don't need another road and we don't have to accept another road. And this whole idea that a group of people just because they have a certain job in our state can make us have this road? No. No. Lots of things bigger than this have been stopped before. We don't need the road. We don't want the road. We don't have to have the road. We're not going to let you build a road.

(Applause.)

AUDIENCE MEMBER: (Bruce Pratt.) So when

somebody said not only is No-Build the smartest thing financially, it will also win this whole thing a lot faster and we have much better and more important things to do in the State of Maine, way more important than some more concrete and some more asphalt.

(Applause.)

MR. PLUMPTON: Susan.

AUDIENCE MEMBER: Good evening. Thank you for allowing me to speak. My name -- people would love to be Susan Swain, but it is indeed Susan Dunham Shane. I just want to address a couple of points. Number one, with regard to information in the DEIS. The zoning map for the Town of Eddington will have to be revised. You are operating not under our current zoning map. And I want to read for those of you who have not had a chance to review the study just one little section from page 185. The Maine -- and it's from the affected environmental and environmental consequences. Those of you that go to planning board meetings know about Susan and her cites. The MaineDOT would work with the Town of Eddington to maintain the safety and preserve the capacity of Route 9 in the study area. The range of possible activities that could be considered to maintain the

45-1

safety and preserve the capacity of Route 9 in accordance with Maine's rules covering access management are working with the Town of Eddington to change the zoning, eliminate existing and minimize future curb cuts and working with individual land owners to acquire property or development rights. I believe that that is pretty clearly stated.

We should realize from that that that's a direct conflict of growth. There is an Economic Development Committee in this town because this town needs more development. Route 9 is the only road, it is the backbone I should say, but the only road in the entire town that is fully serviced by public water. This is attractive to development. If we are restricted in the Route 9 corridor then how do we grow? And exhibit -- under Exhibit 3.54, potential induced development by alternate within one half mile of interchanges and intersections lists that on Route 9 between Chemo Pond Road and Davis Road there is the possibility of growth in -- the potential induced growth of 16 acres of forested land yielding 16 houses. It is vitally important to understand that this connector as planned dumps into one of our commercial districts, goes through the second commercial district, and continues in our mixed use

district before exiting to Clifton.

I would like to also point out that in the study the truck numbers are from 1998 and as I mentioned in conversation this afternoon at the open house I believe that for people to have an accurate understanding there should be more recent data. I'd also like to share that in the sound impacts section I questioned why when they -- the DOT and the rest of the program assigned sensitive receptor locations. I was excited to get to read the whole report because I would be able to find out in area 11 and 12 and 13 and 14 what would be the post-construction sound level in those areas that would be through the Route 9 corridor and on Route 46 because of major concerns for the residents of Route 46 besides the safety because of the narrowness of the road is also lessening of noise. I did not find any computer mods on those numbers and it was explained to me that they weren't important, but in the traffic increase study it shows that the Route 9 corridor after the intersection to the line would experience by 2035 123 percent of vehicle increase. I mentioned this to the very nice young man, who I kind of lit into with the sound section of DOT, and I said, people need to now how much sound is going to be added and how much will

be taken away. And he said, well, if you double the traffic it's only more 3 dB. So for those of you on Route 46, I guess conversely that means if you get half as much traffic you're only going to lose 3 dB of sound which makes this also not really a great idea. There is not enough benefit.

The last thing I would like to know from the board is the loss in the -- the monetary loss to towns in the connector is $17,800. I'm assuming that for all of us as taxpayers that doesn't seem like very much, so I would question and would hope in the next part of the study that you would tell us what the $17,800 in tax loss is just the amount that is contained within the land that would be taken for the connector. And that would be it. Thank you very much for letting me speak.

(Applause.)

MR. PLUMPTON: To our next commentor, I apologize, but I can't read your handwriting but your address is 1369 Main Street -- Main Road, excuse me, Main Road.

AUDIENCE MEMBER: Representative Johnson. Thank you. My comments since this is a public comment period is more for the public than it is for you gentlemen, but first of all, I want to thank you

guys for coming up here and giving us your time and we appreciate that very much. And I want to thank you guys all for showing interest in this. I mean, this is our town. This is our community and you folks in Brewer and anybody from Holden, Clifton that's here, we really appreciate that. I ran on the promise to be your representative and that's what I want to do, so I want to hear from you guys what you all want to do. I'm going to put my feeling aside on this whole thing. I also ran as a fiscal conservative and so the less money we can spend, the better off I feel about it. So that's where I'm coming from, you know. And that's the main thing I wanted to say is to make sure you get a hold of me and tell me how you feel about it because I'm hearing from people different people, different things, so make sure you get your comments to me so I can take them to Augusta and be your voice down there.

And the last thing I want to say is we've heard a lot about vernal pools tonight and I've never been a fan of vernal pools, they limit way too much construction not just roads but buildings, homes, businesses, expansions, and things, but now that I've heard tonight from Gretchen that they have shrimp in them I may reconsider it. Thank you.

(Applause.)

MR. PLUMPTON: Thank you to everyone to came out tonight to get involved or stay involved in this study and particular thanks to those that have offered comments. Is there anyone here that hasn't had a chance to speak that would like to and hasn't spoken already? (Hearing none.) Is there anyone that offered comments this evening who has another thought that they'd like to offer, a second chance? Last call. Well, with that, thank you. We're going to wrap up our public --

AUDIENCE MEMBER: Wait, wait, we're not done.

MR. PLUMPTON: I'm sorry. I didn't see a hand. I'm sorry.

AUDIENCE MEMBER: (Rusty Gagnon.) One thing I'd like to add is we're a mutual aid community. We have a fire department and ambulance and Brewer responds to us and we respond to them. Holden responds to us; in fact, we share a fire chief. And the point is when something has to happen our vehicles have to get wherever it has to be and they need to do it in a quick hurry. They don't need to be dealing with a whole bunch of trucks coming from Canada or a bunch of people who are getting in the

way and don't pull over to the side of the road. So when you consider safety you need to consider the fact that there has got to be a fast access route for our vehicles to get to people whose lives may dependent upon it.

MR. PLUMPTON: Thank you, Rusty.

AUDIENCE MEMBER: (Judy Sullivan.) I have just one quick comment I'd like to make.

MR. PLUMPTON: Go ahead.

AUDIENCE MEMBER: (Judy Sullivan.) If I remember correctly when I read your study in terms of efficiency, this is part of this whole thing is to make it more efficient that from where we are now if 2B-2 is built you save five minutes. Five minutes. $60 million and we save five minutes of travel time.

(Applause.)

AUDIENCE MEMBER: I've just got one question. Jeremy Robertson, resident of Clewleyville Road in Eddington for 39 years now. This whole road, the only one that benefits is Canada, right? How much are they chipping in?

(Applause.)

AUDIENCE MEMBER: Call their lobbyist.

MR. PLUMPTON: Larry Adams.

AUDIENCE MEMBER: (Larry Adams.) We've

asked a lot of questions and when are we going to get some answers? Out of my 32 questions there is probably 150 questions and do we wait now for six or eight months?

MR. PLUMPTON: Is there anyone else that would like to -- Susan, please.

AUDIENCE MEMBER: (Susan Dunham Shane.) I'm sorry, one other thing I wanted to request of the study is in the report it discusses in many -- several times the intersection of Route 46 and Route 9 and that that would be done at a later time, however, I feel that for the residents of that area and considering the traffic flow increase that part of the final study must include actual drawings and plans as to how that intersection would be handled for the traffic flow and integration of Route 46.

46-1

MR. PLUMPTON: Is there anyone else that would like to offer another comment?

AUDIENCE MEMBER: Yeah, I was just going to say --

MR. PLUMPTON: Sir, if you could state your first and last name, please.

AUDIENCE MEMBER: Yup, Jim Kurtz. I live down here on 178, Riverside Drive. I haven't been in this area long, but I have friends that live in this

area. For years I've driven from Brewer to Ellsworth, Ellsworth to Brewer and I saw what the DOT did when they put in 395. It was a joke, okay. You know, because people don't know how to yield. How many here know what yield means raise your hands? Well, when people are coming off 395 they don't know what yield means and do you know how many times I almost got run off that road because of what you did there?

AUDIENCE MEMBER: It's a race.

AUDIENCE MEMBER: (Jim Kurtz.) And then what you did you improved Route 1A to Ellsworth. Well, that's like a drag strip, you know. I wish the state police would stay on that road constantly. And I've seen many accidents. I've been stopped in traffic. You know, I don't know how you come up with designing roads, but, you know, what you're talking about here we don't need it. It's a waste of money.

(Applause.)

AUDIENCE MEMBER: (Jim Kurtz.) You know, we need something, yeah, we do need something to fix the traffic problems in places, but we need something done differently, you know, and maybe we should put more money into, you know, like I said, the state police and getting them on the roads like on Route 1A

going down through Ellsworth and pulling people over and really ticketing them because it's -- it is -- it's like a drag race and I've been driving that road for 20 years. And, you know, what they do down to Lucern is, you know, they decided, oh, let's put in a, you know, in the center line they put grooves in it so people won't cross the center line, that's not going to solve anything. You know, maybe because you think people fall asleep, that's not what it is. People are passing, coming down through Lucern, okay. I see people, you know, it's one lane and then two lanes coming up from Ellsworth, I see people actually going over into that passing lane so they can pass people, you know. So I think you all got to sit back and rethink what's going on here. Maybe, you know -- maybe this east/west highway, I don't know much about that, maybe that's the answer and hold off until if they do put the east/west highway in maybe that's what they need to do. Let's hold off, you know, if that's going to go through, let that go through and let's just back off this. And what I would rather see is some other kind of, you know, more police presence on Route 46, on 9. I'm sure, you know, maybe you can take some money out of the transportation budget and put it into the police fund

or whatever for the state police, you know, and try to slow people down, that's where the problem is. You know, it's not expanding roads and more roads because it just takes -- how many of you here drive 1A? Look what's happened. How many deadly accidents happened on it just last year? So did expanding 1A solve anything? No, it didn't. I think when it was in worse shape it slowed people down. So I'd like you just to, you know, rethink it and we don't need this. Let's see what happens with the east/west highway first and see what that's going to do.

(Applause.)

AUDIENCE MEMBER: My name is Rhodaleigh Berry from Brewer. I live on Eastern Avenue and I'm not happy with this meeting tonight. If I would have known it was this type of meeting I probably would have never come, you know, because I wasn't coming here to listen for anything more than the -- the first two people that spoke, everybody else, thank you so much for saying what you said and everything makes sense to me to you people here, but I thought it might have been -- the meeting might have been divided a little bit better than what it is about all of us talking and saying how we feel. I'm for the No-Build for sure, but you people are the people we

need to hear from. We need to hear your comments about our questions and I thought we might be able to hear a little bit about that or something from you people, you know.

(Applause.)

AUDIENCE MEMBER: (Rhodaleigh Berry.) I feel like I just wasted my time tonight. I could have got information about this meeting through my neighbors, you know, that I love dearly, but that's just the way I feel. I thank you for coming. I thought I would hear a comment or two from you people, but obviously not. It's 10 more minutes before 8 o'clock. Thank you so much for coming.

(Applause.)

MR. PLUMPTON: Is there anyone else that would like to offer comments before we wrap up?

AUDIENCE MEMBER: Hi. I'm Jane (Newvey) from Brewer. If this road 2B-2 goes in it goes right behind my house. I've been there 39 years. It's a lovely development. My neighbors are here. Our property values will go down. We're all pretty much a retirement age except for a few young families who have just moved in. We're about ready to sell. What have you done to us? You know, how do we get out of this and where does it go now? How many years do we

have to worry about this? We already went through this once. This is -- all our neighbors pay taxes in Brewer. We are good upstanding citizens and yet you're going to run a highway right behind our houses. I can't put my grandchildren out to play. I can't let the dog out. It won't be safe and the noise will tremble probably the way it is. My question to you is if we don't want it in Brewer, Eddington doesn't want it, how can you make us have it?

(Applause.)

AUDIENCE MEMBER: Jeremy Robertson again, Resident of Eddington for 39 years. I just have one question, are you people ever going to give us an answer to any of this and, if so, how are we ever going to find out about the meeting because every time you've got any kind of meeting you try to hide it from us. It's pretty cowardly the way you guys are acting, so I'd just like to know when we can get some answers.

MR. PLUMPTON: Before we wrap up and talk about the process moving forward is there anyone else that would like to offer a comment this evening?

AUDIENCE MEMBER: Carol Smith from Brewer. I have a concern. When we first started this process

back in 2000, I remember some comments from people who had bought homes or built homes that were on some of these routes and, what were there, like 75 of them or something, and they were concerned over the fact that no one ever told them that this was a possibility. I understand change happens, but I know a lot of my neighbors, I've lived in my neighborhood for almost 26 years and a lot of them have lived there longer and we bought our house because of the neighborhood because it was a quiet neighborhood and we kind of always coveted it and always hoped we could afford to live there and the day came when we could, but I'm really concerned about the people like some of my newer neighbors who bought homes or built homes that knew nothing of this process starting again. We were told back in 2000 or a few years after the process that it was necessary for people selling their homes to let perspective buyers know that this might happen in their neighborhood. What about my neighbor John here who just bought his house a few years ago knew nothing of it? His realtor didn't tell him that. People built homes since the last PAC meeting. What about us when we decide now we don't want to live with this and we want to sell our home? What if we want to do it in the next few

years before this process ends, what are our rights? Are we going to have to start disclosing this to perspective buyers when people before us didn't have to? That's one thing that I think is a huge concern. Thank you.

(Applause.)

AUDIENCE MEMBER: Judy Sullivan and I have a question briefly. Did I -- do I understand that the process works that once you have an alternative that you're happy with that you're going to then purchase or deal with the land issue, acquire land at that time prior to funding? Because that kind of makes me nervous too because if you do it prior to funding in this state in this economy is it possible that people lose their places of living and if they have to readjust or however that's done and then the road doesn't get built because there's no funding. Why is that process in that manner? Why isn't it funded first and then people lose their property if they need to?

MR. PLUMPTON: Very good. Let's start to wrap up our public hearing this evening. We'll talk about comments, those that read from prepared statements if you care to you can offer them to our stenographer, it would make life just a little bit

easier for her. The comment period will remain open until the middle of the month. Try to get your written comments in by the middle of month, but if that doesn't work and they trickle in over the few days after that, that's fine too, it will all be considered. All of the comments regardless of the mechanism that they're delivered will be considered most seriously by the Federal Highway Administration, the DOT and the Corps of Engineers moving forward. If you send your comments to one agency you don't need to send them to them all, these guys will exchange comments and when they regroup and start planning the next couple of phases of the study they'll start by looking at all of the comments that have been offered tonight, those that have been offered over the past few weeks, and those that will continue to be offered in the coming couple of weeks, reflect upon the project and changes that can be made to make a better project.

The process moving forward, following the close of the comment period these agencies will get started looking at those comments and preparing responses to them, reflecting on the changes, all of that will get wrapped together in the final Environmental Impact Statement. At this point, it's

currently envisioned that their final Environmental Impact Statement would be issued about the end of the year. That's the best guess that we can give you at this point in time.

So with that, thank you everybody for turning out, getting involving, staying involved in the study. We greatly appreciate it and please drive safely.

(Hearing concluded at 8:00 p.m.)

C E R T I F I C A T E

I, Robin J. Dostie, a Court Reporter and Notary Public within and for the State of Maine, do hereby certify that the foregoing is a true and accurate transcript of the proceedings as taken by me by means of stenograph,

and I have signed:

_____

Court Reporter/Notary Public

My Commission Expires: February 6, 2019.

DATED: May 9, 2012

Dostie Reporting
7 Morrissette Lane
Augusta, ME 04330
(207) 621-2857

We the citizens of the Town of Eddington, in the County of Penobscot, State of Maine, do hereby protest the "I-395/Rt. 9 Connector Project proposed preferred Alternative 2B-2 Route, and other alternatives 5A2B-2, 5B2B-2, and K loops as mentioned in the Draft Environmental Impact Statement submitted March 2012" and by affixing our signatures below, let it be known to the Selectmen of the Town of Eddington, Maine Dept. of Transportation, and all others, that we do not support this project and request instead a "No-Build" option. Said "No-Build" option to truly mean NO BUILD ANYWHERE within the entire original project "Study Area".

	Printed Name	Street Address	Signature
1	CHRIS SHIRLAND	231 main Road	
2	Wendy Shirland	231 main Road	Wendy Shirland
3	Mike Hudson	199 Chemo Pond ROAD	
4	Bobbie Hudson	199 Chemo Pond Rd	Bobbie Hudson
5	Donna Turner	281 Chemo Pond	Donna Turner
6	Lorna Lane	319 Chemo Pond Rd	Lorna Lane
7	Alicia Lane	319 chemo pond Rd	Alicia Lane
8	Alan Lane	319 Chemo Pond Rd	Alan Lane
9	Eleanor MacDonald	556 Chemo Pd. Rd	Eleanor MacDonald
10	Donald MacDonald	556 Chemo Pd Rd	Donald MacDonald
11	Keena Morse	590 Chemo Rd	Keena Morse
12	Elaine Scott	598 Chemo Rd	Elaine Scott
13	Donna Jordan	614 Chemo	Donna Jordan
14	Mike Clark	612 Chemo Pd Rd	Michael Clark
15	Sharon Goodwin	620 Chemo pond Rd	Sharon Goodwin

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	Printed Name	Street Address	Signature
1	Terry Willette	432 Chemo Pond Rd	Terry J Willette
2	RICHARD MORSE	580 chemo Pd Rd	Richard Morse
3	GARY M PELLETIER	59 FORESTRY LANE	Gary M Pelletier
4	Diane Alexander	23 Forestry Lane	Diane Alexander
5	Gordon Alexander	23 Forestry Lane	Gordon Alexander
6	VERLYN B BELL	37 FORESTRY LN	Verlyn B Bell
7	Judith A Bell	37 Forestry Ln	Judith A. Bell
8	DENNIS JURCZYK	65 FORESTRY LN	Dennis Jurczyk
9	Rhonda Moulton	282 Chemo Pond Rd	Rhonda Moulton
10	Heather Ahearn	142 Chemo Pond Rd	Heather Ahearn
11	Robert Ahearn	142 Chemo Pond Rd	
12	Virginia Doyle	84 chemo Pond	Virginia Doyle
13	CHARLES	84 Chemo Pond	Charles Doyle
14	Doug Cousins	6 Wemill Rd	Douglas Cousins
15	ANN A Prewitt	14 Merrill Rd	Ann A. Prewitt

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	Printed Name	Street Address	Signature
1	Harry Bunting	29 Merrill, RD,	Harry Bunting
2	Karen Bunting	29 merrill Rd	Karen Bunting
3	Marie Seahwest	36 merrill	Marie Seahwest
4	Brandon Varney	34 mcAvill	Brandon Varney
5	Melissa Allen	37 Merrill	Melissa Allen
6	Judy Cluff	62 Merrill Rd	Judy Cluff
7	Donna J Benton	68 Merrill Rd	Donna J Benton
8	Richard Chapman	75 Merrill Rd	Richard Chapman
9	Sandra H. Cookson	76 Merrill Rd	Sandra H. Cookson
10	Sandra Goodhousky	101 MERRILL Rd	Sandra Goodhousky
11	RICHARD-JANICE-TUTT	114 MERRIL RD	Richard Tutt
12	Lyn Babb	134 MERRILL RD Eddington ME	Lyn Babb
13	Gayle Rowe	150 Merrill Rd	Gayle Rowe
14	Paul Salley	1411 Main Rd	Paul Salley
15	Kim Salley	1411 Main Rd	Kim Salley

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	Printed Name	Street Address	Signature
1	Nichole Hanke	2 Pond Rd Eddington	Nichole Hanke
2	Nettie Beathem	14 pond Rd.	Nettie Beathem
3	DAVID BEATHAM	14 POND RD	David Beatham
4	G. ROBERT BURKE	15 POND Rd.	Bob Burke
5	N. Pelletier Smith	36 Pond Rd.	Nancy Pelletier-Smith
6	Harold Miller	33 pond Rd	Harold Miller
7	WANDA WITMER	50 Pond Rd.	Wanda Witmer
8	Russell Witmer	50 Pond Rd	Russell A. Witmer
9	Ronald Fogg	1403 Main Rd	Ronald Fogg
10	Brian E York	1375 maine Road	Brian E York
11	CAROLINE GILBERT	1381 MAIN RD.	Caroline M. Gilbert
12	LORIN M. WALKER	1369 Main Rd	Lorin M Walker
13	Brenda Mango	1358 Main St.	Brenda Jo Mango
14	Rusty Gagnon	1359 Main St	Rusty Gagnon
15	Steven Murphy	189 Chemo Pond Rd	Steven P Murphy

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	Printed Name	Street Address	Signature
1	Wendell Tucker	181 Chemo Pond Rd	Wendell Tucker
2	Linda Tucker	181 Chemo Pond Rd	Linda Tucker
3	Stanley Novak	135 Chemo Rd.	Stanley Novak
4	Jeremy Dunn	43 Chemo Pond Rd	Jeremy Dunn
5	Vaughn Rogers	899 Main Rd	Vaughn Rogers
6	Christine Rogers	899 Main Rd	Christine Rogers
7	Jennifer VanLoan	899 Main Rd	Jennifer VanLoan
8	Dorothy M. Carson	5 Rae Lorraine	Dorothy M. Carson
9	~~Donald F. MacLeod~~	27 Rae Lorraine Dr.	~~Donald F. MacLeod~~
10	John ~~Matthews~~ Matthews	31 Rae Lorraine Dr.	John Matthews
11	Vicki Matthews	31 Rae Lorraine Dr.	Vicki Matthews
12	Jennifer L. McGovern	959 Main Rd.	Jennifer L. McGovern
13	Jay Robichaud	975 Main Rd.	Jay Robichaud
14	EUGENE L. FOSTER	985 MAIN ROAD	Eugene L. Foster
15	Christine Falcon	1035 Main Rd	Christine Falcon

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	Printed Name	Street Address	Signature
1	Christina Giorgi	1043 main rd Eddington	Christ A.
2	Deric Lafonte	1043 main rd Eddington ME 04428	[illegible]
3	John D Hill Jr	1051 ~~1047~~ main Rd	[illegible]
4	Autumn Hill	1051 main Rd	Autumn Hill
5	Susan M. Bishevsky-Weld	1151 Main St.	Susan M. Bishevsky-Weld
6	Leslie Callagan	28 Hope Manor Apt 1 Eddington, ME 04428	Leslie Callagan
7	Thomas L. Mallory, Jr.	28 Hope Manor Apt 4 Eddington, ME 04428	[illegible]
8	Mary Knight	9 Hope Manor #3 Eddington Me 04428	Mary S. Knight
9	Sonda Burleigh	3 hope manor apt 3 Eddington Me 04428	Sonda R Burleigh
10	Marlene Finson	27 Hope Manor Apt. 2 Eddington Maine 04428	Marlene Finson
11	Theresa Corcoran	27 Hope Manor Apt 3 Eddington ME 04428	Theresa P Corcoran
12	Jeanne Leighton	41 Rooks Rd Eddington, Me 04428	Jeanne M Leighton
13	[illegible]	107 Rooks Rd	[illegible]
14	Michael LaFountain	1283 Main Road	[illegible]
15	Nycole LaFountain	1283 main Rd	[illegible]

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	Printed Name	Street Address	Signature
1	MARTIN A Millett	1284 MAIN Rd Eddington Me	martin a millett
2	SHARON E. Millett	1284 MAIN RD Eddington, Me.	Sharon E Millett
3	Meagan Watson	1270 main Rd Eddington me	Meg Watson
4	[illegible]	" " " "	[illegible]
5	Catherine Curtis	[illegible] Eddington	Catherine Curtis
6	Rob Shirey	1270 main RD	[illegible]
7	Ruth Cheverie	1246 Main Rd	Ruth Cheverie
8	Richard A. Cheverie	1246 Main Rd	Richard A. Cheverie
9	Michael Manzo	1222 Main Rd	Michael Manzo
10	Jory W Sechrest	1202 MAIN Rd	Jory W Sechrest
11	Kathie Potter	1202 Main Rd.	Kathie Potter
12	LARRY Gordon	1202 MAINE Rd.	Larry Gordon
13	Stephen Garrison	1192 Main RD	Steph Garrison
14	Joanne Garrison / Joanne Garrison	1192 Main Rd	Joanne Garrison
15	Robert A Foster / Robert A Foster	1158 Main Rd	Robert A Foster

We the citizens of the Town of Eddington, in the County of Penobscot, State of Maine, do hereby protest the "I-395/Rt. 9 Connector Project proposed preferred Alternative 2B-2 Route, and other alternatives 5A2B-2, 5B2B-2, and K loops as mentioned in the Draft Environmental Impact Statement submitted March 2012" and by affixing our signatures below, let it be known to the Selectmen of the Town of Eddington, Maine Dept. of Transportation, and all others, that we do not support this project and request instead a "No-Build" option. Said "No-Build" option to truly mean NO BUILD ANYWHERE within the entire original project "Study Area".

	Printed Name	Street Address	Signature
1	Sharon Foster	1158 Main Road	Sharon Foster
2	Ralph Russell	1146 Main Rd	Ralph Russell
3	Carol Russell	1146 Main Rd	Carol Russell
4	Nicholas Fox	1140 Main Rd	Nicholas Allen Fox
5	Karen Osborne	1120 Main Rd	Karen Osborne
6	Meghan Fox	1140 Main Rd	Meghan Fox
7	Rebecca Stithan	1078 Main Rd	Rebecca Stithan
8	TARED O'HALLORAN	1068 MAIN RD	Tared O'Halloran
9	Terry Blake	1050 Main Rd	Terry Blake
10	Sam E Sayers SR	1020 main Rd	Sam E Sayers SR
11	LES NEWSOM	950 MAIN Rd	
12	Bonnie Newsom	950 Main Rd	
13	Tom Vannicini	948 Main RD	
14	Craig Russ	934 Main Rd	
15	Jim Russell	924 Main Rd	

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	Printed Name	Street Address	Signature
1	Colleen Russell	984 Main Rd Eddington ME	Colleen Russell
2	Morrow, Adam J.	17 Chemo Road Eddington, ME 04428	
3	Kristi Morrow	17 Chemo Road Eddington, ME 04428	Kristi Morrow
4	Ann Jenkins Bull	23 Chemo pond rd Eddington, Me	Ann Jenkins Bull
5	Karen M. Sylvester	35 Chemo Pond Eddington, ME	Karen M. Sylvester
6	Daniel R. Nutt	153 Chemo Pond Eddington	Daniel R Nutt
7	Carla Nutt	153 Chemo Pond Rd Eddington Me	Carla Nutt
8	Gloria Cassidy	7 Chemo Pond Eddington ME	Gloria Cassidy
9	Frank Pawlikowski	29 Comins Lane Eddington	Frank Pawlikowski
10	Bon Pawlikowski	29 Comins Lane	Bon Pawlikowski
11	Regina Sullivan	Eddington Me 37 Comins Ln Eddington	Regina Sullivan
12	Karen McDonald	15 Grandview DR Eddington ME	Karen McDonald
13	John Barry	21 Grandview	John Barry
14	Robert Dorr	63 Grandview Drive Eddington	Robert A. Dorr
15	Pamela Dorr	63 Grandview Dr Eddington, ME	Pamela M. Dorr

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	Printed Name	Street Address	Signature
1	Lillian Boucher	97 Comins Lane	L Boucher
2	Vicky Santos	760 Main Rd	
3	Stephen T. Kotyk	747 MAIN RD	S. T. Kotyk
4	Patricia T. Kotyk	747 Main RD	Pat Kotyk
5	Nelly E. Libby	46 comins Lane	Nelly E Libby
6	Seth B. Libby Jr.	46 Comins Lane	Seth B Libby Jr
7	Mr. Mark Fowler	36 Comins Lane	Mark Fowler
8	April Fowler April Fowler	36 Comins Lane	April Fowler
9	DAN SOUCIE	741 MAIN RD.	Dan Soucie
10	Brenda Nevells	741 main RD.	Brenda Nevells
11	Gretchen Heldmann	439 Main Rd.	~~Gretchen Heldmann~~
12	DAVID ADAMS	447 MAIN RD	David Adams
13	Connie TURNER	447 MAIN RD	Connie L Turner
14	Lisa Madore	469 MAIN RD	Lisa Madore
15	Doug Daucette	485 main Rd	Douglas Daucette

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	Printed Name	Street Address	Signature
1	Kathleen Wood	491 Main Rd	Kathleen Wood
2	ADAM GILLESPIE	501 MAIN RD	
3	Stephanie Gillespie	501 main rd.	
4	Stephen Elkins	501 Main Rd	
5	Joyce Kennedy	643 Main Rd	Joyce Kennedy
6	Terry J Wolf	526 Main Rd	
7	DANA KEARNS	587 MAIN ST	
8	ALLEN MERTZ	597 MAIN RD	
9	Jessica Conners	597 main Rd	
10	Hal Meyers	651 Main Rd	
11		651 Main Rd.	Laurie Meyers
12		9 Orchard Ln	Mike Burton
13	Susan A. McKay	34 Lois Ln.	Susan A. McKay
14	CHARLES KNOWLTON	15 CHEMO PD RD	
15	Beverly B. Knowlton	15 Chemo Pd. Rd.	Beverly B. Knowlton

Beverly B. Knowlton

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	Printed Name	Street Address	Signature
1	Larry Lancaster	650 Main Rd	Larry Lancaster
2	FANNIE LANCASTER	650 MAIN RD EDDINGTON	Fannie Lancaster
3	Benjamin Marrinpitt	638 Main Rd	
4		634	Main RD
5	TIMOTHY LANDER	607 MAIN RD	
6	Jeremy Ferris	592 MAIN RD	
7	Susan Grover	10 Maple Grove Ln	Susan Grover
8	Charles Grover	10 Maple Grove Ln	Charles P. Grover
9	charles Grover JR	566 Main RD	charles L Grover JR
10	Marlene Grover	566 Main Rd	Marlene Grover
11	John W. McDonald	538 Main Rd	John W McDonald
12	Sidney Buswell	498 Main Rd	Sidney Buswell
13	Deborah L. Buswell	498 Main Rd	Deborah L. Buswell
14	Lucille Guay	4 DAVIS RD	Lucille Guay
15	Wilfred Guay	4 Davis RD	Wilfred Guay

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	Printed Name	Street Address	Signature
1	Donald A. Perkins	448 Main Rd	
2	Mindy Perry	448 Main Rd.	Mindy Perry
3	Shirley Brissette	424 Main Rd	
4	James R. Bull	23 Eagle Ln	James R. Bull
5	Chantelle Holmes	169 Chemo Pond Rd	Chantelle Holmes
6	Ralph C Holmes	169 Chemo Pd. Rd	Ralph C Holmes
7	Fred Clair	171 Chemo Pd Rd	Fred Clair
8	Theresa Clair	" "	Theresa Clair
9	Ann Libby	152 Chemo Pd Eddington, me	Ann Libby
10	Philip Patterson	691 Main Rd	Philip Robertson
11	Joe Veilleux	26 David	Joseph Veilleux
12	Kimberly Maury Kelley	39 Davis Rd	Kimberly Maury Kelley
13	Bethany Welch	45 Davis Rd	Bethany Welch
14	C Bradbow	34 Davis Rd	
15	Gregg Smith	PO Box 36 Eddington	

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	Printed Name	Street Address	Signature
1	Irvin Smith	10 Erin Lane	Irvin Smith
2	Tyler Smith	10 Erin Lane	Tyler Smith
3	Sylvia Morrill	19 Erin Lane	Sylvia Morrill
4	Kolbi Currier	336 Main ST Bradley	Kolbi Currier
5	Bryan Gray	201 Cram St Bradley	Bryan Gray
6	Matthew DeRoche	70 Davis Rd	
7	Nathan's DeRoche	70 Davis Rd	
8	Timothy Slater	137 DAVIS rd	Timothy Slater
9	Donna Slater (Donald Slater)	137 Davis Rd	Donna Slater
10	Denise Doane	140 DAVIS Rd	Denise Doane
11	Mike Doane	140 Davis Rd	Mike Doane
12	Becca Griffiths	178 DAVIS Rd.	Becca M. Griffiths
13	RYAN ROGERS	199 DAVIS RD	Ryan Rogers
14	Nichole Foster	1999 Davis Rd	Nichole E Foster
15	Raymond Rogers	23 KNOX LANE	Raymond Rogers

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	Printed Name	Street Address	Signature
1	Stephanie Martin	155 Getchell Rd	Stephanie Martin
2	Nancy A. Coulter	170 Merrill Rd Eddington, ME	Nancy A. Coulter
3	Jaime Wood	34 Eddy Heights	Jaime Wood
4	Rusawoods	546 Main Rd Eddington	Rusawoods
5	Todd Russell	34 DAN BOISE LANE EDDINGTON	Todd Russell
6	Ashley Michaud	546 Main Rd Eddington	Ashley Michaud
7	Ronald Blake	2050 Main Rd Eddington	Ronald Blake
8	Allison Larder	602 Main Rd. EDDINGTON	Allison Larder
9	May Brown	1058 Main Rd, Eddington, Me. 04428	May Brown
10	MARK PAUL/X	49 JARVIS CORNER DR EDDINGTON	Mark Paul
11	TIMOTHY S. CROCKER	6216 Main Rd Eddington	Timothy S. Crocker
12	DAN SOUCIE	741 MAIN RD EDDINGTON	Dan Soucie
13	Jen Pawlendzio	9 Orchard Lane Eddington, ME 04428	Jen Pawlendzio
14	STEPHEN KISLUS	6226 MAIN RD. EDDINGTON, ME 04428	Stephen Kislus
15	Joe Powell	193 main Rd Eddington ME	Joseph Powell

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	Printed Name	Street Address	Signature
1	Wayne A. Edgecomb	52 Knox Lane Edgecomb	Wayne A. Edgecomb
2	Heidi Shawley	63 Knox Ln.	Heidi Shawley
3	Becky Ruggiero	171 Davis Rd.	Rebecca Ruggiero
4	Scott Adams	208 Davis Rd	Scott D. Adams
5	Nina Adams	208 Davis Road	Nina Adams
6	Daniel Sinclair	243 Davis Road	[illegible]
7	Russell Burpee	262 Davis Rd	Russell Burpee
8	James Black	285 Davis Rd	James Black
9	Rick Wallace	291 Davis Rd	Rick Wallace
10	Lisa Wallace	291 Davis Rd	L Wallace
11	Marie Sekera	314 Davis Road	Marie Sekera
12	~~Joseph Sekera~~	~~314 Davis Road~~	Jos
13	Sherri Scanlon	241 Main Rd.	Sherri Scanlon
14	Michael S. Rimm	257 Main Rd	Mike Rimm
15	John Nelson	285 Main RD	John Nelson Sr.

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	Printed Name	Street Address	Signature
1	WILBUR LIBBY	11 WILBURS WAY	Wilbur Libby
2	Sandy Knox	305 Main Rd Eddington, ME	Sandra M Knox
3	PAUL CALLAHAN	327 MAIN RD EDDINGTON	Paul Callahan
4	Badrick Rockwell	27 Rockwell Lane Eddington	Badrick E Rockwell
5	Jeanie V Billings	353 main Rd Eddington	Jeanie V Billings
6	Michael Billings	353 Main Rd. Eddington, ME 04428	Michael Billings
7	Barbara Dufee	396 main RD Eddington me 04428	Barbara Dufee
8	Marcia Wood	30 Coffey Hill Way Eddington me	Marcia Wood
9	Stephanie Secord	10 Coffey Hill Way Eddington, me	Stephanie Secord
10	Cynthia Rice	348 Main Rd 04428 Eddington, me	Cynthia Rice
11	Josh Gallagher	36 Fox Ln Eddington, Me	
12	Darlene Cookson	91 fox Lane Eddington, Me	Darlene Cookson
13	MARK COOKSON	91 FOX LANE	Mark Cookson
14	David L. Harnish	16 FOX LANE	David L. Harnish
15			

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	Printed Name	Street Address	Signature
1	Donald Valiere	250 Main Rd	Donald Valiere
2	David Sawyer David Sawyer	10 Libby Ln.	David Sawyer
3	FRANK MORRELL	13-L1BBY Lnd	Frank Morrell
4	David INMAN	234 main R	David Inman
5	STEPHEN BROWN	226 main Rd	Stephen Brown
6	MELISSA SIMPSON	220 Main Rd	Melissa K Simpson
7	Jane Tozier	206 Main Rd	Jane Tozier
8	Charlie Tozier	" " "	Charles Tozier
9	Doris Spencer	184 Main Rd	Doris Spencer
10	Mary Spencer	164 MAin Rd.	Mary Spencer
11	Ardene Merritt	158 Main Road	Ardene Merritt
12	Edward Tucker	152 Main Rd	Edward Tucker
13	Lucille Perkins	146 Main Road	Lucille Perkins
14	Renee Lee	30 Hill St	Renee Lee
15	John Ehman	30 Hill St	JOHN EHMAN

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	Printed Name	Street Address	Signature
1	Rose Hahn	46 Hill st	Rose Hahn
2	Cliff Bay	46 Hill St	Cliff Bay
3	Cliff Hahn	46 Hill St	Cliff Hahn
4	Penny Berry	46 Hill st	Penny Berry
5	Rose Berry	46 Hill St.	Rose Berry
6	Matt Montgomery	50 Hill st.	M Montgomery
7	Janet Montgomery	50 Hill St	J Montgomery
8	Ben Reynolds	111 Riverside Dr.	Ben Reynolds
9	James Anderson	133 Riverside Dr.	James Anderson
10	Scott + Margaret Rokes	11 Carriage Lane	Margaret Rokes
11	Melissa Merritt	15 Carriage Lane	Melissa Merritt
12	Adam Sirois	25 Carriage Lane	
13	Ashley McHenry	25 Carriage Lane	Ashley McHenry
14	JAMES HAYDEN	30 CARRIAGE LA	James Hayden
15	Lianna Hayden	30 Carriage Ln	Lianna HAYDEN

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	Printed Name	Street Address	Signature
1	Tyler McCormick	18 Carriage lane Eddington	Tyler McCormick
2	Vicky Shaw	12 Carriage Lane Eddington	Vicky Shaw
3	Gloria S. Faulkner Gloria S.	147 Main Rd Eddington 04428	Gloria S. Faulkner
4	Lisa Cibula	189 Main Rd	Lisa Cibula
5	Lorraine Powell	193 Main Rd Eddington	Lorraine F. Powell
6	Joseph Powell	193 main Rd Eddington	Joseph N Powell
7	Mikki Waugh	201 Main Rd Eddington	Mikki Waugh
8	Brian Butler	201 main Rd Eddington	Brian Butler
9	Alana Grant Alana Grant	201 Main Rd Eddington	Alana Grant
10	Richard Dumond	215 Main Rd Eddington Me	Richard Dumond
11	PATRICK STEVENS	225 MAIN RD EDDINGTON, ME	Patrick J Stevens
12	Molly Steven	225 Main Rd, Eddington ME	Molly Stevens
13	Elizabeth Mead	27 Eddy Heights Apt 2	Elizabeth Mead
14	Myndie Davis	35 Eddy Heights Apt 3	Myndie Davis
15	Chris Mallett	195 Chemo Pond Road	Christopher M Mallett

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	Printed Name	Street Address	Signature
1	Rebecca Gibula	145 Chemo Pd Rd.	Rebecca M Gibula
2	Kate Hayes	3 Cottage Ln	Kate Hayes
3	Mary Mulldune	6 cottage Ln	Mary Mulldune
4	Leon Sutterburg	80 Levensellar	[illegible]
5	Shelby Sutterburg	80 Levensellar Rd	Shelby Sutterburg
6	Sarah M.C. Beaulieu	55 Levensellar Rd	Sarah McBeaulieu
7	MARY E Sibley	52 Levensel Rd.	Mary E Sibley
8	Allan D Sibley	52 LEVENSELLAR	Allan D Sibley
9	[illegible]	7 paint ngtane	[illegible]
10	Tena Wickstrom	8 Harriet Lane	Tena Wickstrom
11	Chester L Moulton	33 pantry	C L Moulton
12	E Ralph Currier	36 Levensellar R	E Ralph Currier
13	Aris Currier	36 Levensellar Rd.	ARIS CURRIER
14	Carol Pomroy	34 Levensellar Rd	Carol Pomroy
15	Dorothy Bates	30 Levensellar Rd	Dorothy Bates

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	Printed Name	Street Address	Signature
1	Joseph D Bates	30 Levenseller Rd	Joseph Bates
2	Josiah Gallagher	6 Graham Lane	
3	Angela Graham	14 Graham Lane	
4	Arnold Graham	14 Graham Lane	
5	Teresa A Luce	25 Levenseller Rd	
6	Linda Rockwell	24 Levenseller Rd	
7	Hollis E. Rockwell Sr.	24 Levenseller Rd	
8	Nancy R. Oakman	14 Levenseller Rd	
9	Emily C Braggs	14 Levenseller Rd	
10	Anthony R. Long	213 Clewleyville Rd	
11	Carol D Long	213 Clewleyville Rd	
12	Robert Blanchard	245 Clewleyville Rd	
13	Tracey Trask	253 Cleavesville	
14	Robin Patterson	253 Clewleyville Rd	
15	Ed COSSETTE	57 LAMBERT	

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	Printed Name	Street Address	Signature
1	Kenneth Arbo	44 Lambert Rd	Kenneth Arbo
2	Jo-Ann Arbo	44 Lambert Rd	Jo-Ann Arbo
3	George McGee	Clewleyville	
4	Cynthia Wilson	131 Clewleyville Rd	Cynthia Wilson
5	Lewis Dunkle	122 Clewleyville Rd	
6	Sandra Dunkle	122 Clewleyville Rd	Sandra Dunkle
7	Letha M. Adams	122 Clewleyville Rd. Eddington Me 044	Letha M. Adams
8	ERMA E. ADAMS	122 Clewleyville Rd Eddington ME 044	Erma E. Adams
9	James Swan	105 Clewleyville	James Swan
10	Thomas R. Hogan	70 Clewleyville	Thomas R. Hogan Jr.
11	Jean E Hogan	70 Clewleyville	Jean E Hogan
12	Alvix Worcester	61 Clewleyville Rd	Alvix B Worcester Jr
13	Benjamin Moore	52 Clewleyville Rd	Benjamin Moore
14	Morgan Henley	52 Clewleyville Rd	Morgan Henley
15	Maryhan Gawler	48 Clewleyville Rd	Maryhan Gawler

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	Printed Name	Street Address	Signature
1	John Giron	603 MAIN RD Eddington	John Giron
2	Ralph Kent	299 Davis Rd	Ralph Kent
3	JAMES H. WHITE	619 MAIN RD	James H White
4	Russell Smith	93 Riverside Dr.	Russell Smith.
5	Patricia T. Wilking	1350 Main Rd	Patricia T. Wilking
6	Susan Dunham Snane	267 Harlow Pond Rd	Susan Dunham Snane
7	Joan M. White	619 Main Rd.	Joan M. White
8	Jim Hancock	631 Riverside Dr	
9	Earl Orcutt	317 Riverside Dr.	Earl Orcutt
10	Craig Knight	1400 Main Rd	
11	Deborah Nadeau	1256 Main Rd	Deborah Nadeau
12	John Tenney	83 Levensaller Road	John Tenney
13	Harland Masey	40 Monument Drive	
14	Denise Knowles	77 Clewleyville Rd	Denise Knowles
15	Parrell E. Crawford	406 Riverside DR	Parrell E Crawford

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	Printed Name	Street Address	Signature
1	Cheryl Shorey	1432 Main Rd Eddington	Cheryl Shorey
2	Thomas Irvine	102 Merrill Rd	Thomas Irvine
3	Joan E. Brooks	369 Main Rd	Joan E. Brooks
4	Guy Smith	396 James Gog	Guy Smith
5	Ken Harvey	283 Clewleyville Rd	Ken Harvey
6	JoAnne Harvey	283 Clewleyville Rd.	JoAnne Harvey
7	William J Adams	121 Cousins Ln	William J Adams
8	Susan R Derrick	10 Pond Rd	[illegible]
9	Kevin Whitmore	306 Main Rd	Kevin Whitmore
10	Corey Pelkey	363 Davis Road	[illegible]
11	Judy Hawkins	1358 Main Rd	Judy Hawkins
12	George Hawkins	1358 Main R.	George Hawkins
13	Dawn Cadotte	362 Main Rd	[illegible]
14			
15			

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	Printed Name	Street Address	Signature
1	GERALD L. HANLEY	49 CLEWLEYVILLE RD	Gerald L Hanley
2	LORRAINE & HARVEY	49 Clewleyville Road	Lorraine & Harvey
3	Bruce Chamberlain	44 Clewleyville Rd	Bruce Chamberlain
4	Lisa Chamberlain	44 Clewleyville Rd	Lisa Chamberlain
5	Robert Legasse	39 clewleyville Rd	Robert Legasse
6	Barbara legasse	39 clewleyville Rd	Barbara legasse
7	Charlene Bowden	32 Clewleyville	Charlene Bowden
8			
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10			
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We the citizens of the Town of Eddington, in the County of Penobscot, State of Maine, do hereby protest the "I-395/Rt. 9 Connector Project proposed preferred Alternative 2B-2 Route, and other alternatives 5A2B-2, 5B2B-2, and K loops as mentioned in the Draft Environmental Impact Statement submitted March 2012" and by affixing our signatures below, let it be known to the Selectmen of the Town of Eddington, Maine Dept. of Transportation, and all others, that we do not support this project and request instead a "No-Build" option. Said "No-Build" option to truly mean NO BUILD ANYWHERE within the entire original project "Study Area".

	Printed Name	Street Address	Signature
1	HERBERT Robertson	163 Clewleyville Rd	
2	Philip Mitchell	163 Clewley ville Rd	
3	Jennifer Robertson	162 Clewleyville Rd	
4	LORRAINE ROBERTSON	163 CLEWLEYville Rd	
5	[redacted]	[redacted]	[redacted]
6	David RobertSon	162Clewleyville Rd.	
7	Jaremy Robertson	17 Jaremy Ln	
8	Joshua Pardy	439 MAIN RD	
9			
10			
11			
12			
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We the citizens of the Town of Eddington, in the County of Penobscot, State of Maine, do hereby protest the "I-395/Rt. 9 Connector Project proposed Alternative 2B-2 Route" and by affixing our signatures below, let it be known to the Selectmen of the Town of Eddington, Maine Dept. of Transportation, and all others, that we do not support this project and request instead a "No-Build" option. Said "No-Build" option to truly mean NO BUILD ANYWHERE within the entire original project "Study Area".

	Printed Name	Street Address	Signature
1	Michael Knowles	78 Clewleyville	Michael Knowles
2	Raymond Pellis	363 Pond Rd	Raymond Pellis
3	Kevin Whitmore	306 main Rd	Kevin Whitmore
4	Tracey Wallace-Brosier	1399 Main Rd	Tracey Wallace-Brosier
5	Kent McLaughlin	554 Main Rd	Kent McLaughlin
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We the citizens of the Town of Eddington, in the County of Penobscot, State of Maine, do hereby protest the "I-395/Rt. 9 Connector Project proposed Alternative 2B-2 Route" and by affixing our signatures below, let it be known to the Selectmen of the Town of Eddington, Maine Dept. of Transportation, and all others, that we do not support this project and request instead a "No-Build" option. Said "No-Build" option to truly mean NO BUILD ANYWHERE within the entire original project "Study Area".

	Printed Name	Street Address	Signature
1	Gail Murphy	189 Chemo pdRd	Gail E Murphy
2	Maircad Stein	1311 Main Rd	Maircad Stein
3	Helmut Koch	1311 Main Rd.	Helmut Koch
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Appendix B

U. S. Army Corps of Engineer's Least Environmentally Damaging Practicable Alternative Determination

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DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

JULY 31, 2013

Regulatory Division
CENAE-R-PEC
FILE NUMBER: NAE-2001-02253

Russell D. Charette, PE
Director, Mobility Management Division
Bureau of Transportation Systems Planning
Maine Dept. of Transportation
16 State House Station
Augusta, Maine 04333

Dear Mr. Charette:

This refers to Maine DOT's proposal to fill waterways and wetlands in order to construct a connector road between I-395 at Brewer, Maine and Route 9 at Eddington, Maine (Corps File No. NAE-2001-02253).

We have been evaluating your project in accordance with the Clean Water Act and other applicable laws and regulations. Section 404(b)(1) of the Clean Water Act, known as the 404(b)(1) Guidelines, is found at 40 CFR 230. The Guidelines require avoiding and minimizing adverse impacts to waters and wetlands. Section 230.10 (a) states, "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."

On July 16, 2012 the Corps informed you that it was our preliminary determination that there appeared to be no other available, practicable, or less environmentally damaging alternatives than alternative 2B-2, the preferred alternative of Maine DOT and FHWA. Our determination at the time was based on the preliminary applications submitted to date by Maine DOT, information contained in the Draft Environmental Impact Statement ("DEIS") and previous planning documents provided by DOT and its consultants, concurring comments from the U.S. Environmental Protection Agency and U.S. Fish & Wildlife Service, extensive interagency coordination, and a review of public comment.

Since then we have completed our review of supplemental information contained in "Responses to Substantive Comments on the I-395/Route 9 Transportation Study Draft Environmental Impact Statement" dated "March 2013". This DOT/FHWA document more thoroughly addresses agency and public comments on the DEIS and comments generated through several public open houses and meetings sponsored by Maine DOT and FHWA and a

DOT/FHWA public hearing dated May 2, 2012. The Corps continues to believe that there are no other available, practicable, or less environmentally damaging alternatives than alternative 2B-2.

This determination is not a permit decision. The determination will assist Maine DOT as they continue project planning and pursue future funding. Any future Corps permit decision will require the submission of a final complete permit application, evaluation of additional measures to further avoid and minimize impacts to aquatic and other environmental resources, a full public interest review, and the development of a detailed mitigation plan intended to compensate for any unavoidable impacts to wetlands and other aquatic resources. Maine DOT will also be required to obtain a permit and water quality certification from the Maine Dept. of Environmental Protection ("Maine DEP").

The Corps retains the discretion to revisit this determination should substantial new information on impacts to the environment or affected public interest factors arise. I wish to encourage you and your consultants to continue working with state and federal regulatory/resource agencies as well as the general public to avoid and minimize impacts to waterways and wetlands and other important public resources.

As with any highway project that involves unavoidable direct *and* indirect impacts to aquatic resources, adequate compensatory mitigation will be a major factor in any future permit decision. We encourage Maine DOT to continue early planning and coordination in this area. Ideally preliminary information on mitigation opportunities should be included in the final permit application. Although you and your consultants are aware of it, let me remind you that mitigation must be planned in accordance with the most current mitigation guidance from the Corps. This is available at our New England District web site at www.nae.usace.army.mil/regulatory. Identifying potential mitigation sites and assembling site analysis data, such as monitoring hydrology levels, should continue to be closely coordinated with the Corps, our federal resource agency partners, and the Maine DEP.

If you have any questions, please contact Jay Clement of my staff at 207-623-8367 at our Manchester, Maine Project Office.

Sincerely,

Jennifer L. McCarthy
Chief, Regulatory Division

Appendix C

U. S. Fish and Wildlife Service's Biological Opinion

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ENDANGERED SPECIES ACT SECTION 7 CONSULTATION

BIOLOGICAL OPINION

Lead Action Agency:	U.S. Department of Transportation, Federal Highway Administration
Activity:	I-395 and Route 9 Connector: Proposed New Roadway Alignment in Brewer, Holden and Eddington, Maine
Consultation Conducted By:	U.S. Fish and Wildlife Service, Maine Field Office [05E1ME00-2013-F-0067]
Approved By:	09-19-2014 Laury A. Zicari, Field Supervisor

Table of Contents 2

List of Abbreviations

BMP = best management practices
CFR = US Code of Federal Regulations
CM = conservation measure Corps = U.S. Army Corps of Engineers
dB = decibel or sound pressure
DEP = State of Maine Department of Environmental Protection
MDMR = State of Maine Department of Marine Resources
ESA = Endangered Species Act
FHWA =U.S. Department of Transportation Federal Highway Administration
HUC = hydrologic unit code
I-395 = US Interstate Highway 395
MDIFW = State of Maine Department of Inland Fisheries and Wildlife
MaineDOT = State of Maine Department of Transportation
NEPA = National Environmental Policy Act
NFH = National Fish Hatchery
NMFS = National Marine Fisheries Service (NOAA)
NOAA = National Oceanic and Atmospheric Administration (NMFS)
PCE = primary constituent element(s)
RHU = Atlantic salmon modeled rearing habitat units
RMS = root mean squared
SEL = sound exposure level
Service = US Fish and Wildlife Service
SEWPCP = Soil Erosion and Water Pollution Control Plan
SHRU = Atlantic salmon habitat recovery unit
WNS = white-nose syndrome

INTRODUCTION

This constitutes the Biological Opinion of the U.S. Fish and Wildlife Service (Service) for a new roadway facility that is proposed for funding by the Federal Highway Administration (FHWA) on behalf of the Maine Department of Transportation (MaineDOT). The project is as follows: a federally funded connector highway between Interstate 395 in Brewer, Maine and Route 9 in Eddington, Maine (including a segment through Holden), known as the I-395/Route 9 Connector.

This Biological Opinion and Incidental Take Statement (ITS) were prepared by the Service in accordance with section 7(b) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531, *et seq.*), and implementing regulations at 50 CFR 402. With respect to designated critical habitat, the following analysis relied only on the statutory provisions of the ESA, and not on the regulatory definition of "destruction or adverse modification" at 50 CFR 402.02.

This proposed connector roadway facility is within the geographic range of the endangered Atlantic salmon (*Salmo salar*) Gulf of Maine Distinct Population Segment, crossing streams that may contain Atlantic salmon and its designated critical habitat (NMFS 2009a, NMFS 2009b).

The proposed action is also within the known range of the northern long-eared bat (*Myotis septentrionalis*). On October 2, 2013, the Service proposed listing this species as endangered under the ESA (78 FR 61046). Under the ESA, action agencies are not required to consult on proposed species or proposed critical habitat, but may request Service advice on avoidance and minimization measures regarding adverse effects of the action. On November 19, 2013, the Service recommended that the FHWA prepare an addendum to the July 2013 Biological Assessment report submittal regarding potential project effects to the northern long-eared bat. On December 2, 2013, the MaineDOT and the FHWA submitted an addendum to the Service, requesting a section 7 informal conference for the northern long-eared bat.

Other Regulatory Actions

The proposed roadway facility is currently undergoing a National Environmental Policy Act (NEPA) study, led by the FHWA. NEPA studies typically evaluate project alternatives based on the conceptual design as such studies occur early in project design. As a result, the submitted BA is based on preliminary field and design information that addresses potential project effects on listed and proposed species. According to the FHWA, section 7 consultation must be completed under the requirements of NEPA before the FHWA can provide Federal funding to the final design and construction phases.

This proposed action also requires a Clean Water Act section 404 permit from the U.S. Army Corps of Engineers (Corps) to address fill placement in waters of the United States. Although there are two Federal action agencies associated with the proposed action, one agency typically acts as the lead agency for the ESA section 7 consultation process. The FHWA has agreed to serve as the lead action agency.

Background and Consultation History

- **December 1, 2005**: The FHWA published a Notice of Intent to prepare an Environmental Impact Statement for the I-395 / Route 9 Transportation Study in Penobscot County, Maine.
- **July 26, 2007:** The Service receives an Invitation as Participating Agency.
- **December 14, 2010, January 11, 2011, October 11, 2011 and December 13, 2011**: Interagency meetings and forums addressing project scopes, schedules, and agency concerns over potential impacts to species and habitat.
- **January 6, and 10, 2011**: The MaineDOT staff met onsite with Service representatives to conduct a site review.
- **April 11, 2011**: The MaineDOT met with the Maine Department of Marine Resources Bureau of Sea Run Fisheries and Habitat (MDMR) and the Service to investigate a natural barrier to aquatic organism passage/migration.
- **October 26, 2012**: The FHWA, the MaineDOT and the Service met to discuss NEPA study status and need for section 7 consultation.
- **December 12, 2012**: The Service and the MaineDOT surveyed a natural water fall that may present an Atlantic salmon migration barrier.
- **January 29, 2013**: The FHWA and the MaineDOT submitted a request for formal section 7 consultation to the Service.
- **February 28, 2013**: The Service issued a response letter requesting additional information to initiate consultation.
- **July 3, 2013**: The FHWA and the MaineDOT submitted a second request for formal section 7 consultation to the Service.
- **August 1, 2013**: The Service issued a consultation initiation letter to the FHWA.
- **November 21, 2013:** The Service requested a consultation extension to December 9, 2013.
- **November 22, 2013:** The FHWA approved the extension request and agreed to the proposed extension date of December 9, 2013 for issuance of a Biological Opinion.
- **December 3, 2013:** The Service received additional project information regarding the northern long-eared bat and potential effects to Meadow Brook.

All proposed road-stream crossing locations have been assessed jointly by qualified MaineDOT and Service biologists with experience in Atlantic salmon life history requirements and aquatic habitat determination, and who are familiar with the MaineDOT construction practices. In addition, throughout the data collection process for this consultation, the MaineDOT biologists have coordinated with the MDMR and the Maine Department of Inland Fisheries and Wildlife (MDIFW) Atlantic salmon biologists, who have provided information on Atlantic salmon studies in Maine.

The consultation history for this action also includes numerous conversations and email exchanges between staff of the Service, the MaineDOT, the FHWA, and the Corps to share additional information and/or make relatively minor changes to the scope of the project.

Biological Opinion

This Biological Opinion presents the Service's review of the status of Atlantic salmon, the condition of designated critical habitat, and the environmental baseline for the action area, as well as our analyses of all the effects of the action as proposed and the cumulative effects (50 CFR 402.14(g)). For the jeopardy analysis, the Service analyzes these combined factors to conclude whether the proposed action is likely to appreciably reduce the likelihood of both the survival and recovery of the affected listed species.

This Biological Opinion also presents the Service's review of the status of the northern long-eared bat, which has been proposed by the Service for listing as an endangered species. An ESA section 7 informal conference has been requested by the FHWA.

This Biological Opinion is based on the following resources:

- information provided in the FHWA July 3, 2013 initiation letter requesting formal consultation and the accompanying BA;
- Final Endangered Status for a Distinct Population Segment of Anadromous Atlantic Salmon (*Salmo salar*) in the Gulf of Maine (65 FR 69459; November 17, 2000);
- Status Review for Anadromous Atlantic Salmon (*Salmo salar*) in the United States (Fay et al. 2006);
- Determination of Endangered Status for the Gulf of Maine Distinct Population Segment of Atlantic salmon; Final Rule (74 FR 29345; June 19, 2009);
- Designation of Critical Habitat for Atlantic Salmon Gulf of Maine Distinct Population Segment (74 FR 29300; June 19, 2009 and 74 FR 39903; August 10, 2009 [revision]);
- additional information regarding potential project effects submitted by the MaineDOT and the FHWA after the initiation of consultation on December 3, 2013;
- preliminary alignment design plans;
- field investigations;
- previous practices by the MaineDOT;
- meetings and telephone conversations;
- scientific literature; and
- The Draft Environmental Impact Statement.

A complete administrative record of this consultation will be maintained by the Service's Maine Field Office in Orono, Maine. The Service log number is 53411-2013-F-0067.

BIOLOGICAL OPINION

I. DESCRIPTION OF THE PROPOSED ACTION

1.1 Transportation Study Description

The MaineDOT and the FHWA have undertaken the Interstate 395/Route 9 transportation study to identify a regional solution that would improve transportation-system linkage between I-395 and Route 9, along Routes 1A and 46 in southern Penobscot County, Maine (Figure 1 and 2).

The purposes of the I-395/Route 9 transportation study are to:

- identify a section of the National Highway System in Maine from I-395 in Brewer to Route 9, consistent with the current American Association of State Highway and Transportation Officials' *A Policy on Geometric Design of Highways and Streets*;
- improve regional system linkage;
- improve safety on Routes 1A and 46; and
- improve the current and future flow of traffic and the shipment of goods to the interstate system in southern Penobscot County, Maine.

The need for this proposed transportation improvement is based on existing inadequate roadway geometry combined with an increase in local and regional commercial and passenger traffic that has resulted in poor system linkage, safety concerns, and traffic congestion. Segments of Routes 1A and 46 in the area do not provide a high-speed, controlled-access arterial highway between I-395 and Route 9 to the east. These two roads do not provide an operationally efficient transportation facility for regional connectivity and mobility. The results of these deficiencies in system linkage are safety concerns, delays in passenger and freight movement, and conflicts between local and regional traffic. Locations in the area exhibit higher crash rates than other locations in Maine with similar characteristics. Data were collected and analyzed to identify high crash locations in the area. The MaineDOT crash data for January 2005 through December 2008 indicate there are 10 high crash locations in the area.

From 2001 to 2010, the MaineDOT and the FHWA conceptually designed and analyzed the No-Build Alternative and more than 70 build alternatives that could potentially satisfy the study purpose and needs. In designing and analyzing alternatives, the MaineDOT and the FHWA consulted with regulatory and resource agencies at the State and Federal level, local officials, special-interest groups, the Public Advisory Committee, and the public.

After careful consideration of the alternatives developed in response to the study's purpose and needs and in coordination with cooperating and participating agencies, the MaineDOT and the FHWA identified Alternative 2B-2 as the preferred alternative because it best satisfies the study purpose and needs, would fulfill agency statutory mission and responsibilities, and has the least environmental impact. Based on the Draft Environmental Impact Statement (March 2013), the Corps made a determination that there are no other available, practicable, or less environmentally damaging alternatives than alternative 2B-2 (July 31, 2013).

Figure 1: Project Location Map

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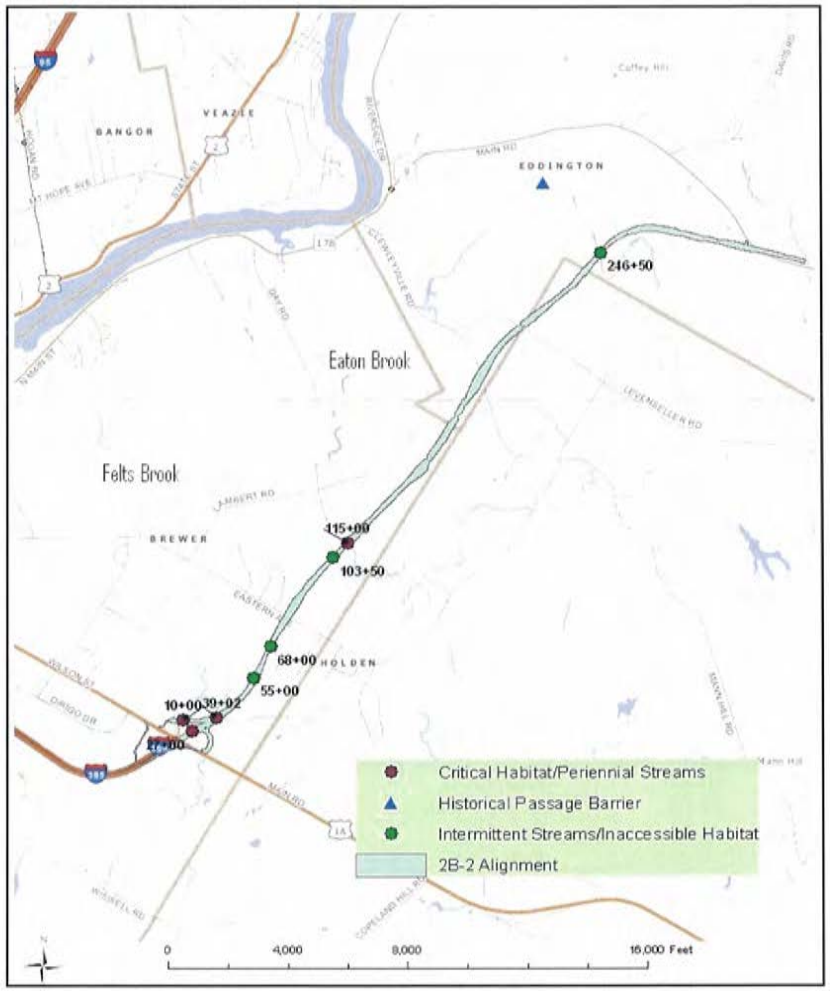
Figure 2: Project Vicinity Map



Alternative 2B-2 would be a controlled-access highway and conceptually designed using the MaineDOT design criteria for freeways. Two lanes would be constructed and used for two-way travel within an approximate 200-foot wide right-of-way. Route 9 would not be improved, and it would not provide high-speed, limited access connection to the east of East Eddington village. It would satisfy the study need related to traffic congestion and safety.

As currently proposed, Alternative 2B-2 extends northward from the I-395 interchange with Route 1A, roughly paralleling the Brewer/Holden town line, connecting with Route 9 west of Chemo Pond Road. The existing I-395/Route 1A interchange would be used (to the extent possible) and expanded to become a semi-directional interchange. A semi-directional interchange reduces left turns and cross traffic; the only traffic movement that would require a left turn would be Route 1A south to Alternative 2B-2 north (Figure 2).

Alternative 2B-2 (herein known as the *action* or *proposed action*) crosses four perennial streams that are designated Atlantic salmon critical habitat, three intermittent streams that potentially affect downstream critical habitat, and one perennial stream with a natural fish migration barrier (water fall) downstream of the proposed roadway corridor. The critical habitat streams are within the watersheds for Felts Brook and Eaton Brook (including tributaries).

Four road-stream crossing structures will be built to a minimum of 1.2 times each streams bankfull width at the structure placement location. Road-stream crossing structure types include a bottomless structure or a four-sided structure using Stream Simulation design (developed by the U.S. Forest Service) that determines road-stream crossing structure size and requires natural stream substrate through the structure (Table 1). The Service uses the *1.2 times stream bankfull width* term as a surrogate for designing a road-stream crossing structure using Stream Simulation. The MaineDOT proposes that the perennial, non-critical habitat stream and all intermittent road-stream crossing structures will be designed for hydraulic passage only, not to the *1.2 times bankfull width* standard.

Table 1: Atlantic Salmon Critical Habitat Locations, Stream Information and Road-stream Crossing Structure Design

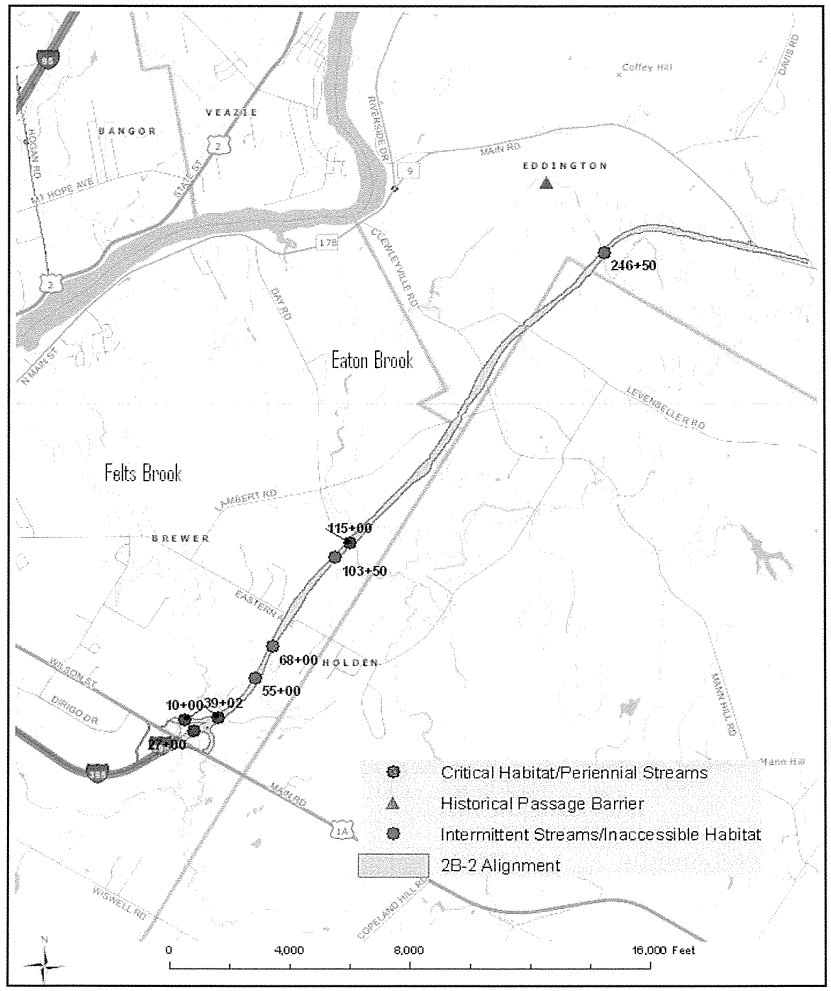
Project Station No. Based On Conceptual Design	Stream Crossing Name	Stream Bankfull Width**	Minimum Structure Span/Width
115+00	Eaton Brook	30 feet	36 feet
39+02	Felts Brook Tributary	10 feet	12 feet
27+00	Felts Brook	15 feet	18 feet
10+00 (Ramp D)	Felts Brook	15 feet	18 feet

*Crossing structure locations are depicted in Figure 2
**Is the stream bankfull width near the proposed crossing location

1.2 Best Management Practices for Erosion and Sediment Control

According to the MaineDOT, all construction contracts, including the proposed action, are required to be built in accordance with the most recent version of the MaineDOT Standard Specifications (MaineDOT 2002). These specifications require that contractors prepare and submit a Soil Erosion and Water Pollution Control Plan (SEWPCP) that is then approved by the

Figure 2: Project Vicinity Map



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As currently proposed, Alternative 2B-2 extends northward from the I-395 interchange with Route 1A, roughly paralleling the Brewer/Holden town line, connecting with Route 9 west of Chemo Pond Road. The existing I-395/Route 1A interchange would be used (to the extent possible) and expanded to become a semi-directional interchange. A semi-directional interchange reduces left turns and cross traffic; the only traffic movement that would require a left turn would be Route 1A south to Alternative 2B-2 north (Figure 2).

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**Is the stream bankfull width near the proposed crossing location

1.2 Best Management Practices for Erosion and Sediment Control

According to the MaineDOT, all construction contracts, including the proposed action, are required to be built in accordance with the most recent version of the MaineDOT Standard Specifications (MaineDOT 2002). These specifications require that contractors prepare and submit a Soil Erosion and Water Pollution Control Plan (SEWPCP) that is then approved by the

MaineDOT and fully enforced as a contractual agreement. A SEWPCP is prepared and performed in accordance with the most recent version of the MaineDOT *Best Management Practices for Erosion and Sedimentation Control* (MaineDOT 2008a). Section IID of the Best Management Practice manual, *Guidance for Sensitive Water Bodies*, specifies under what conditions a project will be designated as a sensitive project. Criteria for identifying sensitive projects include: State or Federal designation of the water bodies, project scope of work, and proximity of the project to the water body.

The MaineDOT has determined that the proposed action is considered a sensitive project due to the potential occurrence of Atlantic salmon and its critical habitat. The MaineDOT staff from the Surface Water Quality Unit will evaluate each proposed critical habitat stream crossing and develop a contract *Special Provision* that specifies Atlantic salmon and critical habitat water quality protection requirements to be included in the SEWPCP by the contractor.

1.2.1 Cofferdams

Cofferdams are used to remove water from construction areas in streams, lakes and other waterbodies. These structures isolate the targeted stream construction area by preventing/limiting water from entering construction area; the area is then dewatered, creating a dry streambed conducive to construction activities. The MaineDOT frequently uses cofferdams in conjunction with road-stream crossing structure replacement, rehabilitation and repair projects, but much less frequently for new roadway construction over streams as new roadway construction in Maine is rare.

These cofferdams, which can consist of various materials including sheet pile, sand bags, or an inflatable dam, also aid in substantially reducing sediment released downstream during construction. The following describes a typical construction sequence regarding cofferdam use.

1. The upstream cofferdam is installed first. Heavy duty plastic sheeting is laid along the width of the stream when practicable. Sand bags are then placed on the plastic up to a height higher than the current stream level, working from the stream bank to the stream center.
2. The excess plastic is then folded over the dam in the upstream direction and another layer of sand bags would be laid on the plastic to help seal the dam from infiltration. The plastic is extended along the stream bottom as far upstream as practicable.
3. The downstream cofferdam is then installed.

This second cofferdam is a safeguard against a failure of the upstream dam. Most cofferdams leak so active dewatering occurs throughout construction to minimize the water level. Water from the construction area is typically turbid, requiring filtering and/or reduction of turbidity levels prior to discharging into a stream. This is typically achieved through use of a dewatering structure that filters and dissipates pumped water energy before leaving the structure (see section1.2.3).

1.2.2 Discharge Water Treatment System

Throughout construction, dewatering activities will move turbid water from activity construction areas and discharge into a dewatering structure (i.e., discharge water treatment system). The MaineDOT will minimize turbid water discharges into streams and wetlands through using

dewatering system/structure that reduces water energy, minimizes erosion, filters suspended particulates and allows runoff to percolate into upland soil prior to entering a wetland or stream.

These systems are:

- installed according to the MaineDOT's Best Management Practices for Erosion and Sedimentation Control Manual (MaineDOT 2008);
- either comprised of hay bales and/or sediment filter bags and erosion control fabric. Any sediment retained in the dewatering structure will be disposed in a manner that prevents these sediments from entering a stream or wetland; and
- located to allow runoff on upland soil and through vegetation than may act as a filter.

1.3 Pile Driving

It should be noted that the MaineDOT and the FHWA have indicated that some instream activities will require cofferdams constructed using sheet piling as the dam structure, instead of sandbags. Sheet piling will be necessary on larger stream crossings because the establishment of sandbag-cofferdams is not feasible. Sheet pile use is similar, in sequencing, to sandbag cofferdam construction.

Piles will be driven with a vibratory hammer, first, instead of other methods (e.g. impact hammer), unless site specific conditions preclude the use of sheet piles. The vibratory hammer method is preferred as it is capable of generating lower noise levels that should minimize turbidity levels when compared to an impact hammer (CALTRANS 2009). Piles will also be removed using a vibratory hammer.

1.4 Road-stream Crossing Structure Installation

The MaineDOT proposes to install road-stream crossing structure using culverts (e.g. concrete box, corrugated metal pipe, reinforced concrete pipe, etc.) on streams where it is cost-effective to do so, typically on streams with bankfull widths less than 26 feet. On larger stream crossings, bridges will be installed. Both general road-stream crossing structure types require similar instream construction techniques and processes, but there are differences, which are presented below.

1.4.1 Culvert

Following the completion of the coffer dam, described previously, the instream construction area is dewatered for culvert installation. Activities in a dry streambed expedite construction time and minimizes, to the greatest extent, turbid water discharges downstream. All stream diversion and dewatering equipment and materials (e.g. pumps, hoses, dams, and the sediment basin) are regularly monitored and maintained throughout construction to avoid any failures that could discharge sediment downstream, substantially elevating turbidity levels.

Excavation will occur into the dry streambed to embed a culvert up to two feet below streambed elevation. Once the culvert is placed and appropriate slopes are established, suitable streambed material is placed within the culvert, mimicking a natural streambed through the entire structure. The MaineDOT will then install riprap to stabilize the adjacent roadway slope and complete the

culvert headwalls. Disturbed areas and permanent drainage ditches are then stabilized with final treatments using best management practice and permanent erosion control measures.

The MaineDOT may choose to install open bottom culverts instead of typical pipe or four-sided box culverts. Open bottom culverts allow the natural streambed to remain in place (i.e. no streambed excavation and material placement) with an exception. Open bottom culverts require footers on which the culvert is set. Footers require streambed excavation, but it is limited to where the culvert requires support parallel to the stream banks.

Closeout Procedures for Culvert Placement

1. Any pumps used to continually dewater the streambed will be moved from the streambed but continue to operate.
2. Any stream diversion pump systems (located upstream of dewatered streambed), if used, will be stopped and the upstream cofferdam will be slowly breached. The first flush of water will be turbid, but will be captured by the downstream pump and pumped to the dewatering structure/system.
3. The downstream cofferdam will be removed upon determining that the dammed water has a minimal turbidity level, and then the cofferdam will be breached.
4. The remainder of the upstream cofferdam and the diversion pump system will then be removed.
5. All disturbed areas will be stabilized with permanent erosion control best management practice measures.

1.4.2 Bridge Installation

The following section describes the general process undertaken to construct new bridge stream crossings. Materials and techniques may vary from stream to stream. Typical equipment utilized for constructing temporary and new bridges includes a large excavator (backhoe), crane, barge (as a working platform), dump trucks, excavator with hoe ram attachment, sheet pile drivers, jack hammers and rock drills, air compressors, welders and cutting torches.

1.4.2.1 Construction of Temporary Stream Crossings

It may be necessary to construct temporary crossings to complete construction of the permanent crossing structures. Access to the crossing locations may only be possible from one direction and equipment would need to access the opposite stream bank to begin the preparation for the crossing structure. The temporary bridges would be placed as close to the location of the permanent crossings as possible to minimize impacts. They would also be sized to minimize impacts to the resource during the short time period they are required.

1.4.2.2 Construction of New Bridge Structures and Road Approaches

All new permanent structures would be built to a minimum of 1.2 times stream bankfull width with a natural bottom (Table 2) over streams that exhibit perennial flow. Prior to construction of bridge abutments, headwalls, wing walls, retaining walls or piers, the contractor shall install cofferdams. Within the cofferdam, ledge or other substrate is typically cleaned and prepared by an excavator or crane with a clamshell using hand tools and high pressure water. The waste

water is contained and filtered through a sediment detention basin before discharging treated water into a waterbody. Abutments and piers are constructed on site using forms that are filled with poured concrete at the structure location. Typically, concrete is poured directly from a concrete mixer truck into the form, but site conditions may prevent this process. In those cases, concrete would be placed using a construction crane and concrete bucket.

Table 2: Proposed Stream Crossing Names, Locations and Atlantic Salmon Critical Habitat Designation

Station No. Based on Conceptual	Crossing Identified by MaineDOT	Stream Bankfull Width	Designated Atlantic Salmon Critical
246+50	05a Eaton Brook Tributary	12 feet	No: Natural downstream barrier
103+50	Eaton Brook Tributary	4 feet	No: Intermittent stream
68+00	4A Felts Brook Tributary	No channel	No- Agricultural
55+00	5A Felts Brook Tributary	8 foot ditch	No- Agricultural
115+00	1b Eaton Brook	30 feet	Yes
39+02	7a Felts Brook Tributary	10 feet	Yes
27+00	8a Felts Brook	15 feet	Yes
Ramp D 10+00	9a Felts Brook	15 feet	Yes

All activities potential affecting waterbodies, whether it is potential sediment runoff from upland areas that may discharge into waterbodies or in-water activities, will employ proper best management practice as stated in *MaineDOT Best Management Practices for Erosion and Sedimentation Control* (MaineDOT BMP Manual) (MaineDOT 2008). In some areas the construction of the retaining wall would start on ledge, while in other areas they would start on fill.

Retaining walls are not always formed onsite, but can be precast. If precast walls are used, they will be set by construction crane and backfilled with gravel or stone, which would then be compacted by a vibratory compactor. Typically, riprap material is placed in front of the retaining walls as scour protection, within the stream.

1.5 Fish Evacuation Procedures

Fish removal (i.e. evacuation) from instream construction areas is regularly performed by the MaineDOT. The specific approach to fish removal activities can vary from site to site, depending on a variety of factors including stream width, water depth, and substrate type. Since this project is in the conceptual design phase, detailed plans for each proposed stream crossing structure have not been developed. The MaineDOT states that specific fish evacuation strategies and details for each instream construction activity will be consistently employed at all eight proposed stream crossings. This intent is demonstrated by the activity sequencing, which follows the initial steps of installing cofferdams that isolate the instream construction area and diverting stream flow. Fish capture and removal is than accomplished following the procedures in the *Maine Department of Transportation Atlantic Salmon Evacuation Plan and Disinfection Procedures* (Appendix A). During this capture and removal process, the construction area is incrementally dewatered until all, or nearly so, fish are captured, removed and released downstream. Once fish evacuation is deemed complete, final dewatering occurs.

1.6 Project Timeline and Sequencing

Federal funding for final design and construction has not been secured yet; therefore, a construction schedule has not been developed. Construction methods and sequencing will be determined after final design and contractor selection.

The MaineDOT has requested an open instream construction period due to the anticipated complexity of construction scheduling. This request would allow instream construction activities to occur year-round, including in potentially occupied Atlantic salmon critical habitat, instead of the standard instream construction period (July 15 to October 1). However, the MaineDOT has proposed to construct and operate a bypass channel if any instream construction activities will not be complete by October 1.

1.7 Site Preparation

The proposed action is on a new roadway alignment. Construction site preparation will take place in stages. Soil disturbance and excavation will be required to create the proper roadway subgrade as will fill material placement.

Vegetation clearing takes place along the proposed roadway corridor and new construction access roads prior to excavation or filling. Construction of permanent stream crossings will also involve installation of temporary crossing structures as construction staging areas. Fill material for the roadway subgrade will be placed throughout much of the proposed roadway corridor, but the extent is unknown at this time.

1.7.1 Temporary Access Roads and Staging Areas

Prior to initiating activities in section 1.8, temporary access and staging areas will be established. New temporary access roads will allow the contractor to transport material, equipment and labor to specific locations that lack any existing access roads, such as local roads and cleared utility easements that intercept or closely parallel the proposed roadway corridor. Temporary staging areas established outside the proposed roadway right-of-way are anticipated. The Service understands that access roads and staging area locations cannot be identified in the conceptual design phase, but will be necessary.

All applicable best management practice measures and specific conservation measures will be implemented regarding access roads and staging areas that will minimize and/or avoid adverse effects to Atlantic salmon and its critical habitat, and the northern long-eared bat and its critical habitat.

1.8 Stormwater Treatment

The MaineDOT/FHWA anticipates that construction will occur for more than one year. During that period, disturbed soil areas will be exposed to stormwater runoff from precipitation events and snow melt. As described above, the MaineDOT will implement standard best management practice measures during construction to manage and minimize stormwater discharges during construction to avoid increasing stream turbidity levels and soil erosion.

Additionally, the resulting action will substantially increase impervious area (e.g. pavement, bridges, etc.) within the watershed and the action area. The MaineDOT is required by the Maine Department of Environmental Protection (DEP) to treat stormwater runoff generated from impervious surface to manage water quality. As part of the action, the MaineDOT/FHWA have committed to a stormwater management design that addresses impaired water quality, increased stream velocities, changes to ambient water temperature and increased pollutant loading. This will be addressed through the following measures:

According to the MaineDOT, the State of Maine Stormwater Management Law (38 MRSA § 420-D) requires general standards to be included in a project's stormwater management system. These treatment measures would mitigate channel flow frequency and erosion duration increase from smaller storm runoff events. The MaineDOT and the FHWA have committed to implementing Best Management Practice design that would focus on system designs providing the greatest thermal buffering.

The MaineDOT also identified that recent research at the University of New Hampshire Stormwater Center has shown that:

> *"…systems that provide treatment by infiltration and filtration can moderate runoff temperatures by thermal exchange with cool subsurface materials. Stormwater BMPs that incorporate filtration appear to be exceptionally effective for mitigation of temperature. The degree of exchange is largely a function of the hydraulic loading rate. The physical dimensions of treatment cells can also affect the temperature of systems. Deeper systems have greater capability to buffer temperatures, and systems with a large subsurface footprint appear to have the greatest ability to mitigate runoff temperatures. These systems will be able to buffer the warm summer runoff, as well as the cool winter runoff, yielding effluent temperatures near the average groundwater temperature."* (Roseen et al. 2011, p. 37).

1.9 Conservation Measures

In addition to best management practice and construction techniques described in this section, the FHWA and the MaineDOT commit to the following conservations measures as part of the action. These measures were developed through a cooperative effort with the Service, the FHWA and the MaineDOT. These measures provide either specific guidance for activities or define performance measures where project design and construction activity details cannot be understood at this time. These performance measures will be incorporated into final project design and construction activities. Conservation measures are intended to minimize and/or avoid adverse effects to proposed and listed species and their critical habitat.

CM-01: The MaineDOT/FHWA shall hold a pre-construction meeting for each project with appropriate the MaineDOT Environmental Office staff, other MaineDOT staff, and the MaineDOT construction crew or contractor(s) to review all procedures and requirements for avoiding and minimizing effects to Atlantic salmon and its critical habitat to emphasize the importance of these measures for protecting Atlantic salmon and their habitat. The

MaineDOT/FHWA, US Army Corps of Engineers and Service staff shall be invited to this meeting and attend as available.

CM-02: Cofferdam use in Atlantic salmon critical habitat shall be constructed and removed during the stream low-flow period (July 15 to October 1).

CM-03: New fill material used to construct side slopes within 100 feet of stream crossings shall receive final grade treatment and soil stabilization measures immediately upon each road-stream crossing structure installation completion. If final grade treatment occurs during the non-growing season, then temporary stabilization measures shall be used until conditions allow for re-vegetation.

CM-04: The fish evacuation plan (Appendix A) and cofferdam dewatering activities shall be implemented by appropriate MaineDOT staff, or their designees, to assure fish removal has minimal effects on captured individuals. Manual fish removal techniques (e.g. netting, trapping, and seining) shall be used first to remove as many fish as possible, before using the electrofishing technique. The MaineDOT shall coordinate with the Service so that Service personnel can be onsite, providing technical assistance, during the fish evacuation.

CM-05: To prevent entrainment of Atlantic salmon juveniles during the stream diversion period, the MaineDOT/FHWA shall use a water pump with an intake screen mesh size sufficiently large enough so that the approach velocity does not exceed 0.20 ft. sec- (16.10 m sec-1). Square or round screen mesh openings are not to exceed 3/32 inch (2.38 millimeters) on a diagonal. Criteria for slotted face openings must not exceed approximately 1/16 inch (1.75 millimeters) in width. These screen criteria follow NMFS (2011). Intake hoses shall be regularly monitored while pumping to minimize adverse effects to Atlantic salmon.

CM-06: To minimize the spread of noxious weeds, all off-road equipment and vehicles, operating from existing open and maintained roads, shall have soil, seed, vegetation or other debris removed prior to entering the construction site. All equipment shall be cleaned and inspected immediately prior to being received at the construction site to assure they do not have this material.

CM-07: The MaineDOT and their contractors shall follow measures designed to avoid and minimize effects to streams from hazardous materials associated with construction activities. These measures include the following:

a. Vehicle refueling shall occur more than 100 feet from any waterway, except for large cranes, pile drivers and drill rigs where this distance may not be practical.

b. All vehicles carrying fuel shall have specialized equipment and materials available on the vehicle to contain or clean up incidental spills. Equipment and materials would include spill kits appropriately sized for specific fuel quantities, shovels, absorbent pads, straw bales, containment structures and liners, and/or booms.

c. During use, all pumps and generators shall have appropriate spill containment structures and/or absorbent pads in place.

d. All equipment used for instream construction shall be cleaned of external oil, grease, dirt, and mud. Any leaks or accumulations shall be corrected before entering streams or areas that drain directly to streams or wetlands.

CM-08: The MaineDOT and their contractors shall minimize the potential for effects to Atlantic salmon and their habitat by conducting all construction activities in accordance with the MaineDOT-approved *Soil Erosion and Water Pollution Control Plan*. Turbid water discharges will be visually monitored and all erosion controls will be inspected daily to ensure that the measures taken are adequate to protect the stream. If inspection shows that the erosion controls are ineffective, immediate action shall be taken to repair, replace, or reinforce controls as necessary.

CM-09: Construction impacts shall be confined to the minimum area necessary to complete the project.

CM-10: The establishment and maintenance of temporary access roads and staging areas shall be performed in a manner consistent with all proposed conservation measures and the applicable BMP requirement herein.

CM-11: Vegetation shall only be grubbed from areas undergoing permanent alteration to the maximum extent practicable. To expedite soil stabilization, no grubbing shall occur in areas slated for no more than temporary impacts.

CM-12: All disturbed areas that retain pervious soil conditions, including contractor staging areas and temporary access roads, shall be restored to pre-construction elevations and contours. Plant species native to the area shall be installed to expedite soil stabilization.

CM-13: Temporary fill material storage piles shall not be placed within the 100-year floodplain during the rainy season (March through July) unless the following conditions are met: (1) storage does not occur when flooding is likely or probable based on current conditions and short-term weather forecasts and (2) when flooding is not likely or probable at the time of material placement. The MaineDOT/FHWA shall implement erosion control measures that minimize and/or avoid sediment discharges into wetlands and streams. Fill material used within 12 hours of deposition shall not be considered a temporary material storage pile.

CM-14: All geotechnical investigations must follow conservation measures and BMP requirements listed herein.

CM-15: Installation of riprap and other materials shall occur from the stream banks or road side slopes or outside the wetted perimeter where practicable.

CM-16: All concrete shall be poured in the dry, or within confined waters not being dewatered to surface waters. Prior to release to a natural resource, any impounded water that has been in

contact with concrete placed during construction shall have a pH between 6.0 and 8.5, shall be within one pH unit of the background pH level of the resource and shall have a turbidity level no greater than the receiving resource. This requirement is applicable to concrete that is placed or spilled (including leakage from forms) as well as indirect contact via tools or equipment.

CM-17: All dredged or excavated material shall be removed to an upland location where it cannot enter a stream or wetland by implementation of Best Management Practice measures for stockpiling, until it is reused as fill or otherwise disposed of properly.

CM-18: All stream crossing structures over Atlantic salmon critical habitat shall not reduce the existing stream width and shall do so by having a horizontal clearance of 1.2 times the stream's bankfull width. Also, these road-stream crossing structures shall be installed in a manner that minimizes streambed disturbance or substantially restores temporary disturbances within the structure. Structure design shall result in a natural streambed that persists indefinitely within all road-stream crossing structures placed in Atlantic salmon critical habitat.

CM-19: Temporary fill placement shall be entirely removed and the site restored to pre-construction grades and elevations, to the greatest extent practicable. This activity shall be consistent with the requirements in CM 12 and 13.

CM-20: The establishment and use of temporary access roads shall meet the following conditions:

a. Existing roadways or travel paths shall be used whenever practicable.

b. Temporary roads within 150 feet of streams shall avoid, minimize and mitigate soil disturbance and compaction by clearing vegetation to ground level, placing clean gravel over geotextile fabric. No grubbing shall occur.

c. The number of stream crossings shall be minimized.

CM-21: All materials, such as riprap, placed within the water shall be pre-washed to remove sediment and or other contaminants.

CM-22: Water pumped from a construction isolation area shall be filtered to remove suspended sediments prior to returning to the stream. Discharges shall occur in such a manner as to not cause erosion.

CM-23: The MaineDOT/FHWA shall assure that boundary clearing limits associated with site access and construction shall be visually marked using flagging and/or signage prior to clearing activities to prevent ground disturbance outside of clearing limits.

CM-24: The MaineDOT/FHWA shall carefully monitor the actions described in this Biological Opinion and document the level of incidental take to ensure that the project minimizes Atlantic salmon take. Within 90 days of project completion, the MaineDOT, on behalf of the FHWA, shall submit a report to the Service summarizing compliance with all the terms and conditions of the Incidental Take Statement; specifying the amount of incidental take. This

report shall include as-built drawings (if finalized), photographs, or other means to confirm that the project was built as proposed in the Corps Section 404 permit.

CM-25: Instream noise producing activities (e.g., blasting, pile driving) will be monitored to assure that sustained sound pressure shall not exceed 183 dB re 1μPa2-s cSEL and peak sound shall not exceed 206 dB re 1μPa Peak SPL. Hydroacoustic monitoring shall be conducted instream either immediately upstream or downstream of a cofferdam, where water depths are conducive to using hydrophones; 1.3 feet or more (WSDOT 2014).

CM-26: The MaineDOT shall require the construction contractor to comply with all applicable State and Federal laws in the acquisition of fill material from locations unknown at the time of this consultation (i.e. outside the 600 foot corridor buffer and 0.5 mile radius interchange buffers). To this end, the MaineDOT shall produce a contract Special Provision stipulating that impacts to listed species and critical habitat will be avoided. That allows the action agency to determine that there will be no effect to listed species or critical habitat regarding use of those fill material acquisition area(s). The Special Provision shall be provided to the Service for review prior to contractor selection to assure consistency with the ESA and this Biological Opinion. This Biological Opinion and incidental take statement do not analyze any adverse effects nor consider or authorize any take associated with fill material acquisition outside the known buffers.

1.10 Action Area

A project action area is comprised of all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. The FHWA and the MaineDOT have identified the I-395/Route 9 Transportation Study action area as a relatively confined area around the proposed 2B-2 preferred alternative. The MaineDOT and the FHWA have proposed the action area to include 600 feet around the entire project corridor, primarily to include potential downstream affects to Atlantic salmon and its critical habitat from turbid water discharges. Potential upstream effects can occur from noise pressure expected from pile driving, which is conservatively within the 600 foot buffer. Potential urban growth around the project corridor will be limited to the 600 foot buffer along the length, but for purposes of this consultation, we consider that the action area is extended to a 0.5 mile radius around the terminal interchanges. In addition to these physical areas, the Service also considers fill material acquisition areas located outside the 600 foot corridor buffer and the 0.5 mile radius buffer part of the action area. The FHWA has stated that specific fill material sourcing areas cannot be identified currently as the fill material amount needed to construct the roadway facility is unknown at this time.

STATUS OF THE SPECIES AND CRITICAL HABITAT

This Biological Opinion presents the Service's review of the status of each listed species considered in this consultation, the condition of designated critical habitat, and the environmental baseline for the action area. This section defines 1) the biological requirements of each listed species affected by the proposed action and 2) the requirements of each designated critical habitat. Listed species facing a high risk of extinction and critical habitat with degraded conservation value are more vulnerable to the aggregation of effects considered under the environmental baseline, the effects of the proposed action and cumulative effects.

2.1 Northern Long-eared Bat

The northern long-eared bat was proposed for listing under the ESA on October 2, 2013 (*Federal Register* Vol. 78, No. 191, pages 61046-61080). Critical habitat listing has not been proposed and a decision on its designation is currently deferred until the species is listed. The FHWA has requested informal conferencing (50 CFR 402.10) from the Service to address potential effects to the northern long-eared bat.

The northern long-eared bat is known to occur in eastern and north-central United States and all Canadian provinces west to the southern Yukon Territory and eastern British Columbia (Nagorsen and Brigham 1993; Caceres and Pybus 1997). In the United States, the species' range reaches from Maine west to Montana, south to eastern Kansas, eastern Oklahoma, Arkansas, and east to the Florida panhandle (Whitaker and Hamilton 1998; Caceres and Barclay 2000; Wilson and Reeder 2005; Amelon and Burhans 2006). However, throughout the majority of the species' range it is patchily distributed, and historically was less common in the southern and western portions of the range than in the northern portion (Amelon and Burhans 2006).

The northern long-eared bat is considered a cave bat, as it hibernates in caves and similar structures during the winter instead of migrating to warmer climates. Migrating species are known as tree bats. During the summer, the northern long-eared bat is dependent on forests as its primary habitat type, using trees as diurnal roost sites (including maternity roosts). These sites are known as summer roosts, summer roosting habitat or summer habitat. Trees with exfoliating bark, cavities and crevices, are considered suitable summer roost sites but the northern long-eared bat shows no affinity to any tree species. Northern long-eared bat has also been observed roosting in manmade structures.

Adult longevity is estimated to be up to 18.5 years (Hall et al. 1957), with the greatest recorded age 19 years (Kurta 1995). Most mortality for Northern Long-eared Bat and many other bat species occur during the juvenile stage (Caceres and Pybus 1997). Northern Long-eared Bat breeding occurs from late July in northern regions to early October in southern regions and commences when males begin to swarm hibernacula and initiate copulation activity (Whitaker and Hamilton 1998; Whitaker and Mumford 2009, Caceres and Barclay 2000; Amelon and Burhans 2006). Males are reproductively inactive until late July, with testes descending in most males during August and September (Caire et al. 1979; Amelon and Burhans 2006). Copulation occasionally occurs again in the spring (Racey 1982). After fall swarming and copulation, northern long-eared bat begin hibernation. Hibernating females store sperm until spring, exhibiting a delayed fertilization strategy (Racey 1979; Caceres and Pybus 1997).

More than 780 hibernacula have been identified throughout the species' range in the United States (39 states), although many hibernacula contain only a few (1 to 3) individuals (Whitaker and Hamilton 1998). Northern long-eared bats are typically found roosting in small crevices or cracks on cave or mine walls or ceilings thus are easily overlooked during surveys and usually observed in small numbers (Griffin 1940; Barbour and Davis 1969; Caire et al. 1979; Van Zyll de Jong 1985; Caceres and Pybus 1997; Whitaker and Mumford 2009). They are also found hanging in the open, although not as frequently as in cracks and crevices (Barbour and Davis 1969; Whitaker and Mumford 2009). Northern long-eared bat hibernacula are typically large, with large passages and entrances (Raesly and Gates 1987), relatively constant, cooler temperatures (32 to 48 °F (0 to 9 °C) (Raesly and Gates 1987; Caceres and Pybus 1997; Brack 2007), with high humidity and no air currents (Fitch and Shump 1979; Van Zyll de Jong 1985; Raesly and Gates 1987; Caceres and Pybus 1997). The sites favored by northern long-eared bat are often in very high humidity areas, to a degree that condensation has been observed on their fur (Hitchcock 1949; Barbour and Davis 1969).

In Maine, only three hibernacula have been documented, all occurring in western and northern Maine. The Service has not been able to document whether or not these hibernacula are occupied by the northern long-eared bat. Consequently, very little information is known about this species habitat requirement in Maine during the winter. The Service currently relies on data from states at similar latitudes until more is known about the long-eared bat in Maine.

The northern long-eared bat hibernates during the winter months to conserve energy from increased thermoregulatory demands and reduced food resources. In general, northern long-eared bat arrive at hibernacula in August or September, enter hibernation in October and November, and leave the hibernacula in March or April (Caire et al. 1979; Whitaker and Hamilton 1998; Amelon and Burhans 2006). However, in northern latitudes, such as in upper Michigan's copper-mining district, hibernation for northern long-eared bat may begin as early as late August and may last for eight to nine months (Stones and Fritz, 1969; Fitch and Shump 1979). Typically, northern long-eared bats are not abundant and compose a small proportion of bats in a hibernaculum (Barbour and Davis 1969; Mills 1971; Caire et al. 1979 Caceres and Barclay 2000). Although usually found in small numbers, the species typically inhabits the same hibernacula as several other bat species, and occasionally are found in clusters with other bat species.

To a lesser extent, northern long-eared bats have been found overwintering in other types of habitat that resemble cave or mine hibernacula, including abandoned railroad tunnels, the entrance of a storm sewer, a hydro-electric dam facility, a rarely used aqueduct (constructed in the 1800s) and a dry well.

While the northern long-eared bat is not considered a long-distance migratory species, short migratory movements between summer roost and winter hibernacula between 35 miles (56 kilometers) and 55 miles (89 kilometers) have been documented (Nagorsen and Brigham 1993; Griffin 1945). However, movements from hibernacula to summer colonies may range from 5 to 168 miles (8 to 270 kilometers) (Griffin 1945). Several studies have shown that the northern long-eared bat has a strong homing ability in terms of return rates to a specific hibernaculum, although bats may not return to the same hibernaculum in successive winters (Caceres and Barclay 2000).

Ovulation takes place at hibernaculum emergence, when a single egg is fertilized, producing a single embryo (Cope and Humphrey 1972; Caceres and Pybus 1997; Caceres and Barclay 2000); gestation is approximately 60 days (Kurta 1994). Adult females give birth to a single pup (Barbour and Davis 1969). Birthing within the colony tends to be synchronous, with the majority of births occurring around the same time (Krochmal and Sparks 2007). Parturition (birth) likely occurs in late May or early June (Caire et al. 1979; Easterla 1968; Whitaker and Mumford 2009), but may occur as late as July (Whitaker and Mumford 2009). Broders et al. (2006) estimated a parturition date of July 20 in New Brunswick. Lactating and post-lactating females were observed in mid-June in Missouri (Caire et al. 1979), July in New Hampshire and Indiana (Sasse and Pekins 1996; Whitaker and Mumford 2009), and August in Nebraska (Benedict 2004). Juvenile flight occurs by 21 days after parturition (Krochmal and Sparks 2007; Kunz 1971) and as early as 18 days after parturition (Krochmal and Sparks 2007). Subadults were captured in late June in Missouri (Caire et al. 1979), early July in Iowa (Sasse and Pekins 1996), and early August in Ohio (Mills 1971).

Female home range size is from 47 to 425 acres (19 to 172 ha) (Lacki et al. 2009). The mean distance between roost trees and foraging areas of radio-tagged individuals in New Hampshire was 2034 feet (620 meters) (Sasse and Pekins 1996).

Emerging at dusk, most hunting occurs above the understory, 3 to 10 feet (1 to 3 meters) above the ground, but under the canopy (Nagorsen and Brigham 1993) on forested hillsides and ridges, rather than along riparian areas (Brack and Whitaker 2001; LaVal et al. 1977). This coincides with data indicating that mature forests are an important habitat type for foraging northern long-eared bat (Caceres and Pybus 1998). Occasional foraging also takes place over forest clearings and water, and along roads (Van Zyll de Jong 1985). Foraging patterns indicate a peak activity period within five hours after sunset followed by a secondary peak within eight hours after sunset (Kunz 1973).

White-nose syndrome is an emerging infectious disease responsible for unprecedented mortality in some hibernating insectivorous bats of the northeastern United States (Blehert et al. 2009). White-nose syndrome poses a considerable threat to several hibernating bat species throughout North America (Service 2010). Since its first documented appearance in New York in2006, white-nose syndrome has spread rapidly throughout the northeast United States and is expanding throughout the Midwest. As of August 2013, white-nose syndrome has been confirmed in 22 states, including Maine, and 5 Canadian provinces, including New Brunswick and Quebec, which border Maine.

Due to white-nose syndrome, the northern long-eared bat has experienced a sharp decline in the northeastern part of its range, as evidenced in hibernacula surveys. White-nose syndrome is found in the majority of hibernacula in the northeastern United States with the northern long-eared bat being one of the species most severely affected by the disease (Herzog and Reynolds 2012). Turner et al. (2011) compared the most recent pre-white-nose syndrome count to the most recent post- white-nose syndrome count for 6 cave bat species; they reported a 98 percent decline between pre- and post- white-nose syndrome occurrence in the number of hibernating northern long-eared bat at 30 hibernacula in New York, Pennsylvania, Vermont, Virginia, and West Virginia. Additionally, the Service combined these data with hibernacula count data from

three other states (Connecticut, New Hampshire and Massachusetts) and determined that the combined overall eight state decline rate is approximately 99 percent.

There are several factors that affect the northern long-eared bat; however, the Service has found that no other threat is as severe and immediate as white-nose syndrome as there is currently no known cure. Summer survey data in the northeast are consistent with observed decline rates from hibernacula data post- white-nose syndrome, where decline rates range from 93 to 98 percent. White-nose syndrome currently has not spread throughout the entire species' range; it is found in 22 of 39 states where the northern long-eared bat occurs and continues to spread. Although there is some uncertainty to the spreading extent, all projection models show white-nose syndrome spreading across the United States. Human transmission could also introduce the fungus responsible for white-nose syndrome to new locations (Coleman 2013, pers. comm.). This threat is ongoing and is significant because it continues to extirpate northern long-eared bat populations.

Other threats to the northern long-eared bat include wind-energy development, winter and summer habitat modification, destruction and disturbance (e.g., vandalism to hibernacula, roost tree removal), climate change, and contaminants. Although these threats (prior to white-nose syndrome) have not in and of themselves had significant impacts at the species level, they may increase the overall impacts to the species when considered cumulatively with white-nose syndrome.

2.2 Gulf of Maine Distinct Population Segment of Atlantic Salmon

2.2.1 Species Description and Listing History of the Atlantic Salmon

The Atlantic salmon is an anadromous fish species that spends most of its adult life in the ocean but returns to freshwater to reproduce. The Atlantic salmon is native to the North Atlantic Ocean, from the Arctic Circle to Portugal in the eastern Atlantic, from Iceland and southern Greenland, and from the Ungava region of northern Quebec south to the Connecticut River (Scott and Crossman 1973). In the United States, Atlantic salmon historically ranged from Maine south to Long Island Sound. However, the Central New England DPS and Long Island Sound DPS have both been extirpated (65 FR 69459; November 17, 2000).

The anadromous Atlantic salmon was initially listed jointly by the Service and the NOAA Fisheries Service (collectively, the Services) as an endangered species on November 17, 2000 (65 FR 69459). In 2009 the Services finalized an expanded listing of Atlantic salmon as an endangered species (74 FR 29344; June 19, 2009). The decision to expand the range of the Atlantic salmon was largely based on the results of a Status Review (Fay et al. 2006) completed by a Biological Review Team consisting of Federal and State agencies and Tribal interests. Fay et al. (2006) conclude that the distinct population segment delineation in the 2000 listing designation was largely appropriate, except in the case of large rivers that were partially or wholly excluded in the 2000 listing determination. Fay et al. (2006) conclude that the Atlantic salmon currently inhabiting the larger rivers (Androscoggin, Kennebec, and Penobscot) are genetically similar to the rivers included in the Atlantic salmon as listed in 2000, have similar life history characteristics, and occur in the same zoogeographic region. Further, the Atlantic salmon populations inhabiting the large and small rivers from the Androscoggin River northward

to the Dennys River differ genetically and in important life history characteristics from Atlantic salmon in adjacent portions of Canada (Spidle et al. 2003; Fay et al. 2006). Thus, Fay et al. (2006) concluded that this group of populations (a "distinct population segment") met both the discreteness and significance criteria of the Services' Distinct Population Status Policy (61 FR 4722; February 7, 1996) and, therefore, recommended the geographic range included in the new expanded Atlantic salmon.

The current Atlantic salmon distinct population segment includes all anadromous Atlantic salmon whose freshwater range occurs in the watersheds from the Androscoggin River northward along the Maine coast to the Dennys River, and wherever these fish occur in the estuarine and marine environment. The following impassable waterfalls delimit the upstream extent of the freshwater range: 1) Rumford Falls in the town of Rumford on the Androscoggin River; 2) Snow Falls in the town of West Paris on the Little Androscoggin River; 3) Grand Falls in Township 3 Range 4 BKP WKR on the Dead River in the Kennebec Basin; 4) the un-named falls (impounded by Indian Pond Dam) immediately above the Kennebec River Gorge in the town of Indian Stream Township on the Kennebec River; 5) Big Niagara Falls on Nesowadnehunk Stream in Township 3 Range 10 WELS in the Penobscot Basin; 6) Grand Pitch on Webster Brook in Trout Brook Township in the Penobscot Basin; 7) Grand Falls on the Passadumkeag River in Grand Falls Township in the Penobscot Basin, 8) Unnamed natural falls in Eddington on Eaton Brook in the Penobscot Basin. The marine range of the Atlantic salmon extends from the Gulf of Maine, throughout the Northwest Atlantic Ocean, to the coast of Greenland.

Conservation hatchery populations used to supplement the natural populations are included as part of the Atlantic salmon distinct population segment. Currently, conservation hatchery populations are maintained at Green Lake National Fish Hatchery (NFH) and Craig Brook NFH, both operated by the Service, the U.S. Department of Agriculture facility in Franklin, Maine, and the East Machias Aquatic Research Center. Excluded from the Atlantic salmon are landlocked Atlantic salmon and those Atlantic salmon raised in commercial hatcheries for the aquaculture industry (74 *Federal Register* 29344; June 19, 2009).

2.2.2 Life History of Atlantic Salmon

Atlantic salmon have a complex life history that includes territorial rearing in freshwater streams to extensive feeding migrations on the high seas. During their life cycle, Atlantic salmon go through several distinct phases that are identified by specific changes in behavior, physiology, morphology, and habitat requirements.

Adult Atlantic salmon return to rivers from the sea and migrate to their natal stream to spawn; a small percentage (one to two percent) of returning adults in Maine will stray to a new river. Adult Atlantic salmon ascend the rivers beginning in the spring and continuing into the fall. Although spawning does not occur until late fall, the majority of Atlantic salmon in Maine enter freshwater between May and mid-July (Meister 1958; Baum 1997). Early migration is an adaptive trait that ensures adults have sufficient time to effectively reach spawning areas despite the occurrence of temporarily unfavorable conditions that naturally occur within rivers (Bjornn and Reiser 1991). Atlantic Salmon that return in early spring spend nearly five months in the

river before spawning, often seeking cool water refuge (e.g., deep pools, springs, and mouths of smaller tributaries) during the summer months.

In the fall, female Atlantic salmon selects sites for spawning in rivers. Spawning sites are positioned within flowing water, particularly where upwelling of groundwater occurs, allowing for percolation of water through the gravel (Danie et al. 1984). These sites are most often positioned at the head of a riffle (Beland et al. 1982); the tail of a pool; or the upstream edge of a gravel bar where water depth is decreasing, water velocity is increasing (McLaughlin and Knight 1987; White 1942), and hydraulic head allows for permeation of water through the redd (a gravel depression where eggs are deposited). Female Atlantic salmon use their caudal fin to scour or dig redds. This digging behavior also serves to clean the substrate of fine sediments that can embed the cobble and gravel substrates needed for spawning and consequently reduce egg survival (Gibson 1993). One or more males fertilize the eggs that the female deposits in the redd (Jordan and Beland 1981). The female then continues digging upstream of the last deposition site, burying the fertilized eggs with clean gravel.

A single female may create several redds before depositing all of her eggs. Female anadromous Atlantic salmon produce a total of 1,500 to 1,800 eggs per kilogram of body weight, yielding an average of 7,500 eggs per 2 sea-winter female (an adult female that has spent two winters at sea before returning to spawn) (Baum and Meister 1971). After spawning, Atlantic salmon may either return to sea immediately or remain in fresh water until the following spring before returning to the sea (Fay et al. 2006). From 1996 to 2011, approximately 1.3 percent of the "naturally-reared" adults (fish originating from natural spawning or hatchery fry) in the Penobscot River were repeat spawners (USASAC 2012).

Embryos develop in redds for a period of 175 to 195 days, hatching in late March or April (Danie et al. 1984). Newly hatched Atlantic salmon, referred to as larval fry, alevin, or sac fry, remain in the redd for approximately six weeks after hatching and are nourished by their yolk sac (Gustafson-Greenwood and Moring 1991). Survival from the egg to fry stage in Maine is estimated to range from 15 to 35 percent (Jordan and Beland 1981). Survival rates of eggs and larvae are a function of stream gradient, overwinter temperatures, interstitial flow, predation, disease, and competition (Bley and Moring 1988). Once larval fry emerge from the gravel and begin active feeding, they are referred to as fry. The majority of fry (greater than 95 percent) emerge from redds at night (Gustafson-Marjanen and Dowse 1983).

When fry reach approximately 1.5 inches to 2.75 inches (4 to 7 centimeters) in length, the young Atlantic salmon are termed parr (Danie et al. 1984). Parr have eight to eleven pigmented vertical bands on their sides that are believed to serve as camouflage (Baum 1997). A territorial behavior, first apparent during the fry stage, grows more pronounced during the parr stage, as the parr actively defend territories (Allen 1940; Kalleberg 1958; Danie et al. 1984). Most parr remain in the river for two to three years before undergoing smoltification, the process in which parr go through physiological changes in order to transition from a freshwater environment to a saltwater marine environment. Some male parr may not go through smoltification and will become sexually mature and participate in spawning with sea-run adult females. These males are referred to as "precocious parr."

First year parr are often characterized as being small parr or 0+ parr approximately 1.75 to 2.75 inches (four to seven centimeters long), whereas second and third year parr are characterized as large parr greater than 2.75 inches long (seven centimeters) (Haines 1992). Parr growth is a function of water temperature (Elliott 1991); parr density (Randall 1982); photoperiod (Lundqvist 1980); interaction with other fish, birds, and mammals (Bjornn and Reiser 1991); and food supply (Swansburg et al. 2002). Parr movement may be quite limited in the winter (Cunjak 1988; Heggenes 1990); however, movement in the winter does occur (Hiscock et al. 2002) and is often necessary, as ice formation reduces total habitat availability (Whalen et al.1999). Parr have been documented using riverine, lake, and estuarine habitats; incorporating opportunistic and active feeding strategies; defending territories from competitors, including other parr; and congregating together in small schools to actively pursue prey (Gibson 1993; Marschall et al.1998; Pepper 1976; Pepper et al. 1984; Hutchings 1986; Erkinaro et al. 1998; Halvorsen and Svenning 2000; O'Connell and Ash 1993; Erkinaro et al. 1995; Dempson et al. 1996; Halvorsen and Svenning 2000; Klemetsen et al. 2003).

In a parr's second or third spring (age 1 or age 2, respectively), when it has grown to approximately 5 to 6 inches in length, (12.5 to 15 centimeters) a series of physiological, morphological, and behavioral changes occur (Schaffer and Elson 1975). This process, called "smoltification," prepares the parr for migration to the ocean and life in salt water. In Maine, the vast majority of naturally reared parr remain in fresh water for 2 years (90 percent or more) with the balance remaining for either 1 or 3 years (USASAC 2005). In order for parr to undergo smoltification, they must reach a critical size of approximately 4 inches total length (10 centimeters) at the end of the previous growing season (Hoar 1988). During the smoltification process, parr markings fade and the body becomes streamlined and silvery with a pronounced fork in the tail. Naturally reared smolts in Maine range in size from approximately 5.25 to 6.75 inches (13 to 17 centimeters), and most smolts enter the sea during May to begin their first ocean migration (USASAC 2004). During this migration, smolts must contend with changes in salinity, water temperature, pH, dissolved oxygen, pollution levels, and various predator assemblages. The physiological changes that occur during smoltification prepare the fish for the dramatic change in osmoregulatory needs that come with the transition from a fresh to a salt water habitat (Ruggles 1980; Bley 1987; McCormick and Saunders 1987; McCormick et al. 1998). The transition of smolts into seawater is usually gradual as they pass through a zone of fresh and saltwater mixing that typically occurs in a river's estuary. Given that smolts undergo smoltification while they are still in the river, they are pre-adapted to make a direct entry into seawater with minimal acclimation (McCormick et al. 1998). This pre-adaptation to seawater is necessary under some circumstances where there is very little transition zone between freshwater and the marine environment.

The spring migration of post-smolts out of the coastal environment is generally rapid, within several tidal cycles, and follows a direct route (Hyvarinen et al. 2006; Lacroix and McCurdy 1996; Lacroix et al. 2004). Post-smolts generally travel out of coastal systems on the ebb tide and may be delayed by flood tides (Hyvarinen et al. 2006; Lacroix and McCurdy 1996; Lacroix et al. 2004, Lacroix and Knox 2005). Lacroix and McCurdy (1996), however, found that post-smolts exhibit active, directed swimming in areas with strong tidal currents. Studies in the Bay of Fundy and Passamaquoddy Bay suggest that post-smolts aggregate together and move near the coast in "common corridors" and that post-smolt movement is closely related to surface currents in the bay (Hyvarinen et al. 2006; Lacroix and McCurdy 1996; Lacroix et al. 2004).

European post-smolts tend to use the open ocean for a nursery zone, while North American post-smolts appear to have a more near-shore distribution (Friedland et al. 2003). Post-smolt distribution may reflect water temperatures (Reddin and Shearer 1987) or the major surface-current vectors (Lacroix and Knox 2005). Post-smolts live mainly on the surface of the water column and form shoals, possibly of fish from the same river (Shelton et al. 1997).

During the late summer and autumn of the first year, North American post-smolts are concentrated in the Labrador Sea and off of the west coast of Greenland, with the highest concentrations between 56°N. and 58°N. (Reddin 1985; Reddin and Short 1991; Reddin and Friedland 1993). The Atlantic salmon located off Greenland are composed of both 1SW fish and fish that have spent multiple years at sea (multi-sea winter fish or MSW) and also includes immature Atlantic salmon from both North American and European stocks (Reddin 1988; Reddin et al. 1988). The first winter at sea regulates annual recruitment, and the distribution of winter habitat in the Labrador Sea and Denmark Strait may be critical for North American populations (Friedland et al. 1993). In the spring, North American post-smolts are generally located in the Gulf of St. Lawrence, off the coast of Newfoundland, and on the east coast of the Grand Banks (Reddin 1985; Dutil and Coutu 1988; Ritter 1989; Reddin and Friedland 1993; and Friedland et al. 1999).

Some Atlantic salmon may remain at sea for another year or more before maturing. After their second winter at sea, the Atlantic salmon over-winter in the area of the Grand Banks before returning to their natal rivers to spawn (Reddin and Shearer 1987). Reddin and Friedland (1993) found immature adults located along the coasts of Newfoundland, Labrador, and Greenland, and in the Labrador and Irminger Sea in the later summer and autumn.

2.2.3 Status and Trends of Atlantic Salmon in the Gulf of Maine Distinct Population Segment

The abundance of Atlantic salmon has been generally declining since the 1800s (Fay et al. 2006). Data sets tracking adult abundance are not available throughout this entire time period; however, a comprehensive time series of adult returns to the Atlantic salmon dating back to 1967 exists (Fay et al. 2006, USASAC 2001-2013) (Figure 3). It is important to note that contemporary abundance levels of Atlantic salmon are several orders of magnitude lower than historical abundance estimates. For example, Foster and Atkins (1869) estimated that roughly 100,000 adult Atlantic salmon returned to the Penobscot River alone before the river was dammed, whereas contemporary estimates of abundance for the entire Atlantic salmon have rarely exceeded 5,000 individuals in any given year since 1967 (Fay et al. 2006; USASAC 2010; MASC 2011).

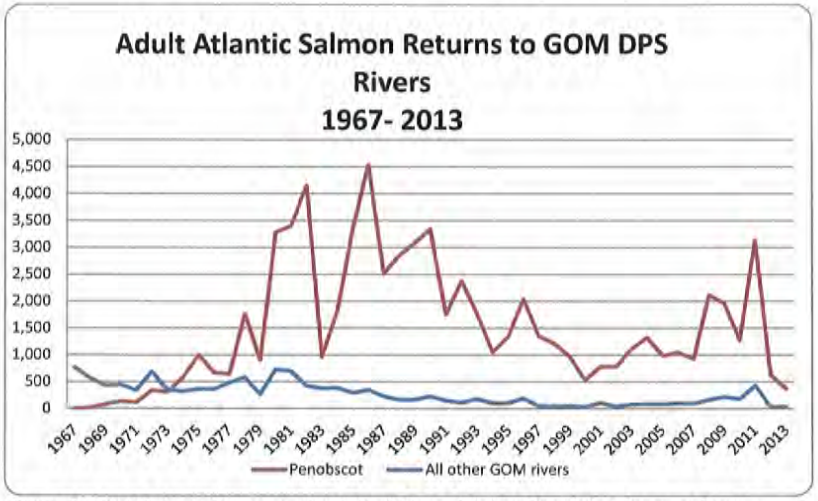

Figure 3: Adult Salmon Returns to the Gulf of Maine Distinct Population Segment Rivers between 1967 and 2013(Fay *et al.* 2006, USASAC 2001-2013).

Contemporary abundance estimates are informative in considering the conservation status of the Atlantic salmon today. After a period of population growth in the 1970s, adult returns of Atlantic salmon declined steadily between the early 1980s and the early 2000s but have been increasing again over the last few years. The population growth observed in the 1970s is likely attributable to favorable marine survival and increases in hatchery capacity, particularly from the construction of Green Lake National Fish Hatchery in 1974. Marine survival remained relatively high throughout the 1980s, and Atlantic salmon populations remained relatively stable until the early 1990s. In the early 1990s marine survival rates decreased, leading to the declining trend in adult abundance observed throughout 1990s and early 2000s.

Adult Atlantic salmon returns have been very low for many years and remain extremely low in terms of adult abundance in the wild. Further, the majority of all adults return to a single river, the Penobscot, which accounted for more than 90 percent of all adult returns to the Gulf of Maine Distinct Population Segment between 2000 and 2013. Of the 3,125 adult returns to the Penobscot River in 2011, the majority are the result of smolt stocking; and only a small portion were naturally-reared. The 2011 return number represents the highest value since 1990, however, the subsequent two years reflects a continuing, and dramatic multi-decadal decline with 624 returns in 2012 and 381 returns in 2013. The 2013 returns represent the lowest value since the early 1970s, and, in general, fisheries biologist for the MDMR and the Service anticipate that this decline will continue in 2014.

The term naturally-reared includes fish originating from both natural spawning and from stocked hatchery fry (USASAC 2012). Hatchery fry are included as naturally-reared because hatchery

fry are not marked and, therefore, cannot be distinguished from fish produced through natural spawning. Because of the extensive amount of fry stocking that takes place in an effort to recover the Atlantic salmon, it is possible that a substantial number of fish counted as naturally-reared were actually stocked as hatchery fry.

Low abundances of both hatchery-origin and naturally-reared adult Atlantic salmon returns to Maine demonstrate continued poor marine survival. Declines in hatchery-origin adult returns are less sharp because of the ongoing effects of consistent hatchery supplementation of smolts. In the Atlantic salmon, nearly all of the hatchery-reared smolts are released into the Penobscot River -- 554,000 smolts in 2011 (USASAC 2012). In contrast, the number of returning naturally-reared adults continues at low levels due to poor marine survival.

In conclusion, the abundance of Atlantic salmon has been low and either stable or declining over the past several decades. The proportion of fish that are of natural origin is very small (approximately 6 percent over the last 10 years) but appears stable. The conservation hatchery program has assisted in slowing the decline and helping to stabilize populations at low levels. However, stocking of hatchery products has not contributed to an increase in the overall abundance of Atlantic salmon and as yet has not been able to increase the naturally reared component. Continued reliance on the conservation hatchery program could prevent extinction but will not allow recovery of the Atlantic salmon, which must be accomplished through increases in naturally reared Atlantic salmon.

2.3. Critical Habitat for Atlantic Salmon in the Gulf of Maine Distinct Population Segment

Corresponding with the June 19, 2009 endangered listing, the NOAA Fisheries Service designated critical habitat for the Atlantic salmon (74 FR 29300; June 19, 2009) (Figure 4). The final rule was revised on August 10, 2009 (74 FR 39003; August 10, 2009). In this revision, designated critical habitat for the expanded Atlantic salmon Gulf of Maine Distinct Population Segment was reduced to exclude trust and fee holdings of the Penobscot Indian Nation.

2.3.1. Primary Constituent Elements of Atlantic Salmon Critical Habitat

Designation of critical habitat is focused on the known primary constituent elements (PCE), within the occupied areas of a listed species, which are deemed essential to the conservation of the species. The PCE for Atlantic salmon are: 1) sites for spawning and rearing, and 2) sites for migration, excluding marine migration.

The NOAA Fisheries Service chose not to separate spawning and rearing habitat into distinct PCE, although each habitat does have distinct features, because of the GIS-based habitat prediction model approach that was used to designate critical habitat (74 *Federal Register* 29300; June 19, 2009) cannot consistently distinguish between spawning and rearing habitat across the entire range of the Atlantic salmon.

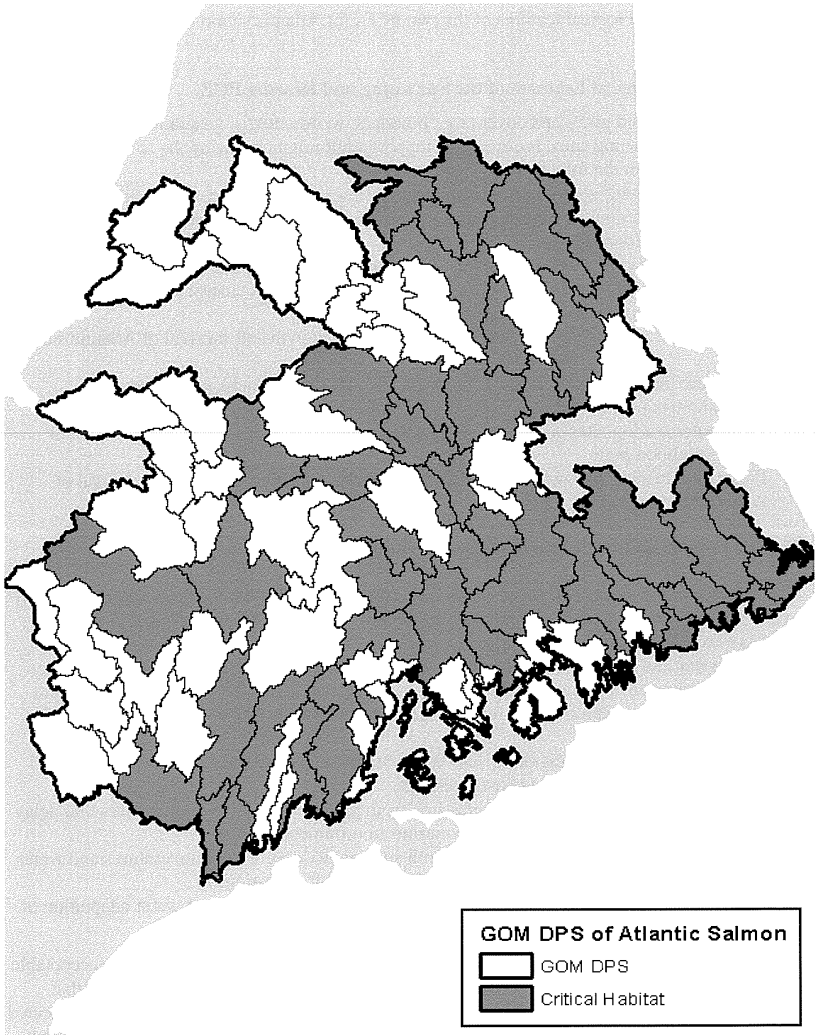

Figure 4: HUC-10 Watersheds Designated as Atlantic Salmon Critical Habitat within the Gulf of Maine Distinct Population Segment Geographic Area.

The physical and biological features of the two PCEs for Atlantic salmon critical habitat are as follows:

Physical and Biological Features of the Spawning and Rearing PCE

1. Deep, oxygenated pools and cover (*e.g.*, boulders, woody debris, vegetation, etc.), near freshwater spawning sites, necessary to support adult migrants during the summer while they wait spawning in the fall.
2. Freshwater spawning sites that contain clean, permeable gravel and cobble substrate with oxygenated water and cool water temperatures to support spawning activity, egg incubation, and larval development.
3. Freshwater spawning and rearing sites with clean, permeable gravel and cobble substrate with oxygenated water and cool water temperatures to support emergence, territorial development and feeding activities of Atlantic salmon fry.
4. Freshwater rearing sites with space to accommodate growth and survival of Atlantic salmon parr.
5. Freshwater rearing sites with a combination of river, stream, and lake habitats that accommodate parr's ability to occupy many niches and maximize parr production.
6. Freshwater rearing sites with cool, oxygenated water to support growth and survival of Atlantic salmon parr.
7. Freshwater rearing sites with diverse food resources to support growth and survival of Atlantic salmon parr.

Physical and Biological Features of the Migration PCE

1. Freshwater and estuary migratory sites free from physical and biological barriers that delay or prevent access of adult Atlantic salmon seeking spawning grounds needed to support recovered populations.
2. Freshwater and estuary migration sites with pool, lake, and instream habitat that provide cool, oxygenated water and cover items (*e.g.*, boulders, woody debris, and vegetation) to serve as temporary holding and resting areas during upstream migration of adult Atlantic salmon.
3. Freshwater and estuary migration sites with abundant, diverse native fish communities to serve as a protective buffer against predation.
4. Freshwater and estuary migration sites free from physical and biological barriers that delay or prevent emigration of smolts to the marine environment.
5. Freshwater and estuary migration sites with sufficiently cool water temperatures and water flows that coincide with diurnal cues to stimulate smolt migration.
6. Freshwater migration sites with water chemistry needed to support sea water adaptation of smolts.

Habitat areas designated as critical habitat must contain one or more PCE within the acceptable range of values required to support the biological processes for which the species uses that habitat. Critical habitat includes all perennial rivers, streams, and estuaries and lakes connected to the marine environment within the range of the Atlantic salmon, except for those areas that have been specifically excluded. Critical habitat has only been designated in areas (HUC-10 watershed level) considered currently occupied and includes stream channels within the designated stream reach and the lateral extent as defined by the ordinary high water mark or the

bankfull elevation in the absence of a defined high-water line. In estuaries, critical habitat is defined by the perimeter of the water body as displayed on standard 1:24,000 scale topographic maps or the elevation of extreme high water, whichever is greater.

For an area containing PCE, to meet the definition of critical habitat, the ESA also requires that the physical and biological features essential to the conservation of Atlantic salmon in that area "may require special management considerations or protections." Activities that were identified as potentially affecting the physical and biological features of Atlantic salmon habitat and, therefore, requiring special management considerations or protections include agriculture, forestry, changing land-use and development, hatcheries and stocking, roads and road-stream crossings, mining, dams, dredging, and aquaculture.

2.3.2. Salmon Habitat Recovery Units within Critical Habitat

In describing critical habitat for the Atlantic salmon, the NOAA Fisheries Service divided the Distinct Population Segment range into three Salmon Habitat Recovery Units or SHRU. The three SHRU include the geographic areas known as Downeast Coastal, Penobscot Bay, and Merrymeeting Bay. The SHRU delineations were designed by the NOAA Fisheries Service 1) to ensure that a recovered population has widespread geographic distribution to help maintain genetic variability and 2) to provide protection from demographic and environmental variation. A widespread distribution of Atlantic salmon across the three SHRUs will provide a greater probability of population sustainability in the future, as will be needed to achieve Atlantic salmon recovery.

Habitat areas designated as critical habitat within each SHRU are described in terms of habitat units. The quantity of Atlantic salmon habitat units were estimated through the use of a GIS-based Atlantic salmon rearing habitat model (Wright et al. 2008). One habitat unit represents 100 m^2 of Atlantic salmon rearing habitat. For each SHRU, the NOAA Fisheries Service determined that there were sufficient habitat units available within the currently occupied habitat to achieve recovery objectives in the future; therefore, no unoccupied habitat at the HUC-10 watershed scale was designated as critical habitat. A brief historical description for each SHRU, as well as contemporary critical habitat designations and special management considerations, are provided below.

2.3.2.1 Downeast Coastal SHRU

The Downeast Coastal SHRU encompasses fourteen HUC-10 watersheds covering approximately 747,737 hectares (1,847,698 acres) within Washington and Hancock counties. In this SHRU there are approximately 59,066 units of rearing habitat for Atlantic salmon among approximately 6,039 km of rivers, lakes and streams. Of the 59,066 units of rearing habitat, approximately 53,400 units of habitat in eleven HUC-10 watersheds are currently considered occupied by Atlantic salmon. The Downeast SHRU has enough habitat units available within the occupied range that, in a restored state (*e.g.* improved habitat connectivity or improved habitat quality); the Downeast SHRU could satisfy recovery objectives as described in the final rule for critical habitat (74 FR 29300; June 19, 2009). Certain tribal and military lands within the Downeast Coastal SHRU are excluded from critical habitat designation.

2.3.2.2 Penobscot Bay SHRU

The Penobscot Bay SHRU, approximately 22,234,522 hectares (54,942,705 acres) in area, contains approximately 315,574 units of Atlantic salmon rearing habitat among approximately 17,440 km of rivers, lakes and streams. Of the 315,574 rearing habitat units (within 46 HUC-10 watersheds), approximately 211,000 units are currently considered occupied (within 28 HUC-10 watersheds). Three HUC-10 watersheds - Molunkus Stream, Passadumkeag River, and Belfast Bay - are excluded from critical habitat designation due to economic impact. Certain tribal lands within the Penobscot Bay SHRU are also excluded from critical habitat designation.

2.3.2.3 Merrymeeting Bay SHRU

The Merrymeeting Bay SHRU is approximately 6,651,620 acres 2,691,814 hectares (2,691,814 hectares) in area and contains approximately 339,182 Atlantic salmon rearing habitat units located among approximately 3.10 miles (5,950 kilometers) of historically accessible rivers, lakes and streams. Of the 339,182 rearing habitat units, approximately 136,000 habitat units are currently considered occupied. There are 45 HUC-10 watersheds in this SHRU, but only 9 are considered currently occupied. Lands controlled by the Department of Defense within the Little Androscoggin HUC-10 and the Sandy River HUC-10 are excluded as critical habitat.

In summary, the June 19, 2009 the final Atlantic salmon critical habitat designation (as revised on August 10, 2009) identifies 45 specific areas occupied by Atlantic salmon that comprise approximately 11.8 miles (19,571 kilometers) of perennial river, stream, and estuary habitat and 497 square miles (799 square kilometers) of lake habitat within the range of the Atlantic salmon and on which are found those physical and biological features essential to the conservation of the species. Within the Atlantic salmon occupied range, approximately .62 miles (1,256 kilometers) of river, stream, and estuary habitat and approximately 62 square miles (100 square kilometers) of lake habitat have been excluded from critical habitat pursuant to section 4(b)(2) of the ESA.

2.4 Summary of Factors Affecting Recovery within the Gulf of Maine Distinct Population Segment

There are a wide variety of factors that have and continue to affect Atlantic salmon current status and its critical habitat. The potential interactions among these factors are not well understood, nor are the reasons for the seemingly poor response of Atlantic salmon populations to the many ongoing conservation efforts for this species.

2.4.1 Threats to the Species

The recovery plan for the previously designated Atlantic salmon (NOAA Fisheries and Service 2005), the latest Status Review (Fay et al. 2006), and the 2009 listing rule all provide a comprehensive assessment of the many factors, including both threats and conservation actions, that are currently affecting Atlantic salmon status and recovery. Currently, the Service and NOAA Fisheries are writing a new recovery plan that will include the current, expanded Atlantic salmon and its designated critical habitat. The new recovery plan will provide the most up-to-date list of significant threats affecting the Atlantic salmon, including the following:

- dams;
- inadequacy of existing regulatory mechanisms for dams;
- continued low marine survival rates for U.S. stocks of Atlantic salmon; and
- lack of access to spawning and rearing habitat due to dams without fish passage facilities and poorly designed road-stream crossings.

In addition to these significant threats there are a number of lesser stressors, which include the following:

- degraded water quality;
- aquaculture practices, which pose ecological and genetic risks;
- climate change;
- depleted diadromous fish communities;
- incidental capture of adults and parr by recreational anglers;
- introduced fish species that compete with or prey on Atlantic salmon;
- poaching of adult Atlantic salmon;
- recovery hatchery program (potential for artificial selection/domestication);
- sedimentation of spawning and rearing habitat; and
- water extraction.

Fay et al. (2006) examined each of the five statutory ESA listing factors and determined that each of the five listing factors is at least partly responsible for the present low abundance of the Atlantic salmon. The information presented in Fay et al. (2006) is reflected in and supplemented by the final listing rule for the new Atlantic salmon (74 FR 29344; June 19, 2009). The following gives a brief overview of the five listing factors as related to the Atlantic salmon.

1. **Present or threatened destruction, modification, or curtailment of its habitat or range –** Historically, and to a lesser extent currently, dams have adversely impacted Atlantic salmon by obstructing fish passage and degrading riverine habitat. Conversely, road-stream crossings that impede upstream passage are a more recent threat. Dams are considered one of the primary causes of both the historic declines and contemporary low abundance of the Atlantic salmon. Land use practices, including forestry and agriculture, have reduced habitat complexity (*e.g.*, removal of large woody debris [LWD] and boulders from rivers) and habitat connectivity (*e.g.*, poorly designed road-stream crossings) for Atlantic salmon. Water withdrawals, elevated sediment levels, and acid rain also degrade Atlantic salmon habitat.

2. **Overutilization for commercial, recreational, scientific, or educational purposes** – While most directed commercial fisheries for Atlantic salmon have ceased, the impacts from past fisheries are still important in explaining the present low Atlantic salmon abundance. Both poaching and by-catch in recreational and commercial fisheries for other species remain of concern, given critically low numbers of Atlantic salmon today.

3. **Predation and disease –** Natural predator-prey relationships in aquatic ecosystems in the Atlantic salmon have been substantially altered by introduction of non-native fishes (*e.g.*, chain pickerel, smallmouth bass, and northern pike), declines of other native diadromous fishes, and alteration of habitat by impounding free-flowing rivers and removing instream structure (such as

removal of boulders and woody debris during the log-driving era). The threat of predation on the Atlantic salmon is noteworthy because of the imbalance between the very low numbers of returning adults and the recent increase in populations of some native predators (e.g., double-crested cormorant), as well as non-native predators. Atlantic salmon are susceptible to a number of diseases and parasites, but mortality is primarily documented at conservation hatcheries and aquaculture facilities.

4. **Inadequacy of existing regulatory mechanisms –** The ineffectiveness of current Federal and State regulations at requiring fish passage and minimizing or mitigating the aquatic habitat impacts of dams is one of the significant threats to the Atlantic salmon today. Furthermore, most existing dams in the Atlantic salmon did not require State or Federal permits. Although the State of Maine has made substantial progress in regulating water withdrawals for agricultural use, threats still remain within the Atlantic salmon, including those from the effects of irrigation wells on Atlantic salmon streams.

5. **Other natural or manmade factors –** Poor marine survival rates of Atlantic salmon are a significant threat, although the causes of this poor survival are unknown. The role of ecosystem function among the freshwater, estuarine, and marine components of the Atlantic salmon's life history, including the relationship of other diadromous fish species in Maine (e.g., American shad, alewife, sea lamprey), is receiving increased scrutiny in its contribution to the current status of the Atlantic salmon and its role in recovery of the Atlantic salmon. While current State and Federal regulations pertaining to finfish aquaculture have reduced the risks to the Atlantic salmon (including eliminating the use of non-North American Atlantic salmon and improving containment protocols), risks from the spread of diseases or parasites and from farmed Atlantic salmon escapees interbreeding with wild Atlantic salmon still exist.

2.4.2. Threats to Critical Habitat

The final rule designating critical habitat for Atlantic salmon identifies a number of activities that have and will likely continue to impact the biological and physical features of spawning and rearing habitat and migration habitat. These include agriculture, forestry, changing land-use and development, hatcheries and stocking, roads and road-stream crossings, other instream activities (such as alternative energy development), mining, dams, dredging, and aquaculture. Most of these activities have or still do occur, at least to some extent, in each of the three SHRUs.

2.4.2.1 Downeast Coastal SHRU

The Downeast Coastal SHRU once contained high quality Atlantic salmon habitat in quantities sufficient to support robust Atlantic salmon populations. Throughout the Downeast Coastal SHRU, many poorly designed road-stream crossings provide complete or partial barriers to Atlantic salmon movements and also degrade the quality of spawning and rearing habitat, both upstream and downstream of the crossing. Impacts to substrate and cover, water quality, water temperature, biological communities, and migratory corridors, among a host of other factors, have impacted the quality and quantity of habitat available to Atlantic salmon populations within the Downeast Coastal SHRU. Two hydropower dams on the Union river, and to a lesser extent the small ice dam on the lower Narraguagus River, limit access to roughly 18,500 units of rearing habitat within these two watersheds. In the Union River, which contains over 12,000

units of rearing habitat, physical and biological features have been most notably limited by high water temperatures and abundant smallmouth bass populations associated with impoundments.

In the Pleasant River and Tunk Stream, which collectively contain over 4,300 rearing habitat units, pH has been identified as possibly being the predominate limiting factor. The Machias, Narraguagus, and East Machias rivers contain the highest quality habitat relative to other HUC-10's in the Downeast Coastal SHRU and collectively account for approximately 40 percent of the rearing habitat in the Downeast Coastal SHRU.

2.4.2.2 Penobscot Bay SHRU

The Penobscot SHRU once contained high quality Atlantic salmon habitat in quantities sufficient to support robust populations. The mainstem Penobscot River holds the highest biological value for the Penobscot SHRU because it provides a central migratory corridor crucial for the entire SHRU. Dams, along with degraded substrate and cover, water quality, water temperature, and biological communities, have reduced the quality and quantity of Atlantic salmon habitat available within the Penobscot SHRU. A combined total of twenty Federal Energy Regulatory Commission-licensed hydropower dams in this SHRU significantly impede the migration of Atlantic salmon and other diadromous fish to nearly 300,000 units of historically accessible habitat. Throughout the Penobscot SHRU, many poorly designed road-stream crossings provide complete or partial barriers to Atlantic salmon movements and also degrade the quality of spawning and rearing habitat both upstream and downstream of stream crossings.

Agriculture and urban development largely affect the lower third of the Penobscot SHRU, below the Piscataquis River sub-basin, by reducing substrate and cover, reducing water quality, and elevating water temperatures. Introductions of smallmouth bass and other non-indigenous species significantly degrade habitat quality throughout the Penobscot River and portions of the Mattawamkeag, Piscataquis, and lower Penobscot sub-basins by altering predator/prey relationships. Similar to smallmouth bass, recent Northern pike introductions threaten habitat in the lower Penobscot River below the Milford Dam in the town of Milford.

2.4.2.3 Merrymeeting Bay SHRU

Historically, habitat throughout the Merrymeeting Bay SHRU was high enough quality to support a robust Atlantic salmon population. The Kennebec River holds the highest biological value for the Merrymeeting Bay SHRU because it provides the central migration conduit crucial for much of the currently occupied habitat in the Sandy River basin. The Sandy River has the greatest biological value for spawning and rearing habitat within the occupied range of this SHRU but is currently only accessible to adult Atlantic salmon through a capture and release program that transports adult returning Atlantic salmon around the four lowermost dams on the Kennebec River. River dams and, to a lesser extent, pollution has degraded habitat quality and accessibility and is likely responsible for the decline of Atlantic salmon populations within the Merrymeeting Bay SHRU. Today, dams are the greatest impediment, outside of marine survival, to Atlantic salmon recovery in the Kennebec and Androscoggin River basins (Fay et al. 2006). Hydropower dams significantly impede Atlantic salmon migration and other diadromous fish, reducing or eliminating access to approximately 352,000 rearing habitat units of historically accessible rearing habitat. Throughout the Merrymeeting Bay SHRU, many poorly designed

road-stream crossings provide complete or partial barriers to Atlantic salmon movements and also degrade spawning and rearing habitat quality upstream and downstream of stream crossings.

In addition to hydropower dams, agriculture and urban development largely affect the lower third of the Merrymeeting Bay SHRU by reducing substrate, cover, water quality, and elevating water temperatures. Furthermore, smallmouth bass and brown trout introductions, along with other non-indigenous species, significantly degrade habitat quality throughout the Merrymeeting Bay SHRU by altering natural predator/prey relationships.

2.4.3 Efforts to Protect the Atlantic Salmon and its Critical Habitat

Efforts aimed at protecting Atlantic salmon and their habitats in Maine have been underway for more than one hundred years. These efforts are supported by a number of Federal, State, Tribal and local government agencies, as well as many private conservation organizations. The 2005 recovery plan for the originally listed Atlantic salmon (NOAA Fisheries Service and Service 2005) presented a recovery strategy focusing on reducing the severest threats to the species and immediately halting species population decline to prevent extinction. The 2005 recovery program included the following elements:

1. Protect and restore freshwater and estuarine habitats;
2. Minimize potential for take in freshwater, estuarine, and marine fisheries;
3. Reduce predation and competition for all life-stages of Atlantic salmon;
4. Reduce risks from commercial aquaculture operations;
5. Supplement wild populations with hatchery-reared Atlantic salmon;
6. Conserve the genetic integrity of the Atlantic salmon;
7. Assess stock status of key life stages;
8. Promote Atlantic salmon recovery through increased public and government awareness; and
9. Assess effectiveness of recovery actions and revise as appropriate.

A wide variety of activities have focused on protecting and restoring Atlantic salmon, including (but not limited to) hatchery supplementation; removing dams or providing fish passage; improving road-stream crossings that block passage and degrade stream habitat; protecting riparian corridors along rivers; reducing the impact of irrigation water withdrawals; limiting effects of recreational and commercial fishing; reducing the effects of finfish aquaculture; outreach and education activities; and research focused on better understanding the threats to Atlantic salmon and developing effective restoration strategies. In light of the 2009 Atlantic salmon expanded listing and designation of critical habitat, the Services will produce a new recovery plan for Atlantic salmon. The new plan, which will include the Kennebec, Androscoggin and Penobscot River watersheds, will address dam and road-stream crossing effects.

3.0 ENVIRONMENTAL BASELINE

The Environmental Baseline provides a snapshot of a species and its designated critical habitat's health or status at a given time within the action area and is used as a biological basis upon which to analyze the effects of the proposed action. Assessment of the environmental baseline includes an analysis of the past and present impacts of all State, Federal, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions that are contemporaneous with the consultation in process (50 CFR 402.02). An environmental baseline that does not meet the biological requirements of a listed species or its designated critical habitat, may increase the likelihood that adverse effects of the proposed action will result in jeopardy to a listed species or in destruction or adverse modification of designated critical habitat.

Past, present, and reasonably foreseeable actions are documented in the Draft Environmental Impact Statement (Exhibit 3.56, pp. 176-178, Appendix E). The Draft Environmental Impact Statement uses 1987 as the limit for the timeframe of past actions considered because that was the year I-395 became operational. Land development activity in the Eaton and Felts Brook watersheds consists of forested and agricultural land conversion to impervious areas associated with residential housing and office parks.

Watershed development did not affect the streams directly but added impervious area. Current development includes expansion at the Eastern Maine Healthcare facility at the junction of I-395 and U.S. Route 1A. Several commercial developments along Route 1A utilize stormwater treatment structures to treat and attenuate stormwater runoff from these impervious areas. Two high voltage electrical transmission corridors have been installed in the action area, which also include some trails to access local natural areas.

3.1 Northern Long-eared Bat Status in the Action Area

Northern long-eared bat summer habitat location information is limited in Maine, but the Service assumes that, based on the extensive suitable forest cover in Maine and documented northern long-eared bat occurrence in Quebec and New Brunswick, this species may occupy summer habitat anywhere in the State. Since suitable forest cover is present in the action area, the Service believes northern long-eared bat could occupy summer habitat in the action area, however, the area has not been surveyed to determine occupancy.

Only three hibernacula locations that might be used by the northern long-eared bat are known in Maine. These are located in northern and western Maine, at least 95 miles from the action area. Northern long-eared bat are believed to, typically, migrate no more than 68 miles from hibernacula, but some have been recorded migrating more than 150 miles (Service 2013). In Maine, northern long-eared bat could use hibernacula during swarming and hibernation from August through April based on data from states at similar latitudes (Service, 2014). Currently, no information specific to Maine is available that identifies beginning and end dates defining the northern long-eared bat hibernation period. In Maine, the Service has tentatively proposed that this period extends from November 15 to April 15. This proposed interval is an interim guidance and is likely to change based on new information and analyses.

3.2 Distinct Population Segment of Atlantic Salmon in the Action Area

The proposed action is located within the Atlantic Salmon Penobscot Bay SHRU. Proposed activities will occur in and around Eaton and Felts Brooks, which are tributaries of the Penobscot River. The Penobscot River is the main stem river within this SHRU. The proposed action is located in the Penobscot River – Penobscot Bay HUC-10 watershed, within in the sub-watersheds of Felts Brook and Eaton Brook. These sub-watersheds are known to contain Atlantic salmon and support its critical habitat. Modeled rearing habitat occurs from the Felts and Eaton Brooks confluence with the Penobscot River, upstream and through the project action area. Additionally, the MDMR has documented spawning in Eaton Brook in the vicinity of Eastern Avenue, which suggests that adults have migrated through the roadway corridor (MDMR 2008). The MDMR also has documented juvenile Atlantic salmon using both streams, but it is unknown whether those fish were recorded within the action area.

Portions of the Felts Brook watershed contain active farmland. These fields occur just north of Route 1A. The watershed also contains light residential and commercial development. Existing residential development centers along the existing main roads in the action area. Felts Brook is crossed twice by roadways downstream of the action's crossing of the stream. The MaineDOT contends that the Route 9 (Burr Bridge #5412) crossing structure over Felts Brook (downstream of the action area) is underlain by rock ledge that likely inhibits passage at low stream flows. The Service has not confirmed this potential partial barrier. Even if it is a partial barrier, it would not preclude Atlantic salmon from entering the action area as migrating Atlantic salmon could enter the stream during a high flow period. However, an Eaton Brook tributary in Eddington does not contain Atlantic salmon or critical habitat due to a natural water fall barrier located downstream of the proposed stream crossing (station 246+50) and upstream of the tributary's confluence with Eaton Brook. All other proposed crossings within the action area do not prevent Atlantic salmon passage upstream into Eaton and Felts Brooks and their tributaries.

The need for eight new road-stream crossing structures has been identified by the FHWA/MaineDOT for their preferred alignment. Of those eight crossings, the MaineDOT and the FHWA have determined that four crossings are not within Atlantic salmon critical habitat. The crossing at station 246+50 is above a natural water fall that functions as a passage barrier. The Service and the MaineDOT confirmed this barrier in November 2012. The proposed stream crossing location at station 103+50 supports an intermittent flow regime and is upstream of an Eaton Brook tributary. The remaining two crossings (stations 55+00 and 68+00) are agricultural drainage ditches/swales supporting intermittent flow.

3.2.1 Adult Salmon Returns

Portions of the Penobscot River SHRU are stocked by the MDMR and the Service with one or more life history stages of hatchery-reared Atlantic salmon, to prevent species extinction in the wild and to facilitate Atlantic salmon recovery. Since the year 2000, adult returns on the Penobscot River have ranged between a low of 255 adults and a high of 3,125 adults. In 2011, 3,125 adult Atlantic salmon were caught at the Veazie Hydroelectric Facility fishway trap (i.e. trap). In 2012, 624 adult Atlantic salmon were captured at the trap, with most (481) transported to CBNFH. The remaining adults were returned to the Penobscot River, upstream of the trap, to naturally spawn in streams throughout the watershed. The 2014 adult Atlantic salmon returns

on the Penobscot River represented a continuing decrease from years 2011 through 2013 with 255 adult Atlantic salmon counted at the Milford Hydroelectric dam trap facility.

3.2.2 Redd Surveys

Redd surveys are used in select streams within the Penobscot watershed to assess natural Atlantic salmon spawning activity. Both redds (a depression in a stream bed excavated as a spawning area/nest) and test pits (false-start redds early in the spawning season) are counted, as weather and river conditions permit. The MDMR primarily conducts redd surveys. Felts and Eaton Brook were last surveyed in 2011. Years 2012 and 2013 surveys were not conducted in these streams due to low adult Atlantic salmon migratory returns. The MDMR has not recorded redds or test pits in either stream during recent survey years, even though spawning and rearing habitat has been recorded from Felts Brook. In 2008, the MDMR has documented spawning in Eaton Brook, in or near the action area.

3.2.3 Stocking

In 2010, 1,822,000 Atlantic salmon juveniles were stocked throughout the Penobscot River watershed in an effort to increase adult returns. This total includes 996,400 fry; 259,000 0+ parr; and 567,100 smolts. In 2011, 1,774,000 Atlantic salmon juveniles were stocked throughout the Penobscot River watershed. This total includes over 953,000 fry; over 267,000 0+ parr; and over 554,000 smolts. In 2012, 2,307,955 juveniles were stocked. Specific location information is lacking, but the MDMR has also provided the Service with data showing stocked juvenile Atlantic salmon have been captured in Eaton Brook as recently as 2010 and Felts Brook in 2011.

In addition to juvenile Atlantic salmon stocking, adults taken to Craigbrook NFH are returned to the Penobscot River, after spawning at the hatchery. In some cases non-spawned adults are released into Penobscot River tributaries when spawning goals are achieved. The Service has no information indicating that Eaton or Felts Brook has received adult Atlantic salmon.

3.2.4 Juvenile Population Assessments

During late summer, the MDMR staff conducts electrofishing surveys to determine the presence and abundance of Atlantic salmon juveniles in locations where fry and parr have been stocked and in locations where Atlantic salmon have spawned. Surveys are done in numerous locations throughout the Penobscot River watershed. Sampling is typically done using the "catch per unit effort" (CPUE) rapid assessment method where a particular habitat type (e.g., riffle) is sampled for a standard amount of electrofishing wand time (five minutes).

The Service is using the most recent CPUE data from 2009 in Eaton Brook (0.396 CPUE) and 2010 in Felts Brook (0.192 CPUE) as the best available scientific data (Service GIS database) to understand potential Atlantic salmon occurrence densities in these streams.

3.3 Status of Atlantic Salmon Gulf of Maine Distinct Population Segment Critical Habitat

Critical habitat is defined as accessible perennial freshwater streams that are located in designated HUC-10 watersheds, as identified in the listing rule. The proposed action occurs

wholly within the Penobscot River-Penobscot Bay HUC-10 watershed, which is designated critical habitat. Felts and Eaton Brooks are perennial streams, therefore, these two streams, including two Felts Brook tributaries, support Atlantic salmon critical habitat within the action area.

The Penobscot Bay SHRU contains 389,421 habitat units (one unit = 100 square meters of stream) of which 250,132 units are designated as critical habitat. While designating critical habitat, the NOAA Fisheries Service developed a suitability rating system for Atlantic salmon habitat. The Penobscot Bay SHRU contains 268,196 rearing habitat units considered to be "suitable" or "highly suitable" as Atlantic salmon habitat. Within critical habitat, the Penobscot Bay SHRU contains 158,471 rearing habitat units that are suitable or highly suitable.

As the Services are developing a new recovery plan for Atlantic salmon, recovery efforts are focusing on providing Atlantic salmon access to habitat units that are rated as at least suitable within those watersheds designated as critical habitat. The Penobscot Bay SHRU contains approximately 6,280 rearing habitat units within designated critical habitat that are both accessible to Atlantic salmon and rated as suitable habitat, which represents approximately 4 percent of the total units within this SHRU. To achieve Atlantic salmon recovery, substantial progress is needed in the Penobscot SHRU to improve Atlantic salmon access to suitable critical habitat areas suitable for juvenile rearing.

The MDMR has conducted field surveys throughout Maine identifying suitable areas of Atlantic salmon habitat, including Felts and Eaton Brooks. The MDMR identified that only Felts Brook, within 1.0 km of its confluence with the Penobscot River, contains suitable rearing and spawning habitat but not within the action area. The Atlantic salmon rearing habitat model (Wright et al. 2008), however, indicates juvenile habitat presence in the action area and throughout both stream lengths and some tributaries. Within the action area, the habitat model indicates that Eaton Brook supports 74.2 rearing habitat units and Felts Brook supports 50.5 rearing habitat units. The Service believes that there is no substantial downstream passage barrier to either stream, which means all 124.7 habitat units in the action area should be accessible to Atlantic salmon.

3.4 Factors Affecting Species Environment in the Action Area

Several ongoing activities within the action area could affect the northern long-eared bat and the Atlantic salmon and its critical habitat. These include the following:

- land clearing;
- erosion;
- land development;
- silviculture activities; and,
- agriculture.

3.4.1 Atlantic Salmon

The Felts and Eaton Brooks watersheds are within an area of high human population density relative to much of the Atlantic salmon geographic area. The action area is within Bangor

metropolitan area, which supports a population density of 941 people per square mile with a total population of 154,000 (U.S Census Bureau) but overall, Maine's population density is 43 people per square mile. Consequently the Bangor metropolitan area also supports relatively high roadway density, residential and commercial development, agriculture and forested areas.

In the action area, Atlantic salmon occurrence status in Felts Brook may be affected by downstream barriers, but no downstream barriers have been identified on Eaton Brook. Potential barriers on Felts Brook were identified in 2007 as beaver dams but no recent surveys have confirmed whether these dams still occur. The Penobscot River downstream of these confluences is fully accessible to sea run fish.

Although no specific information is available, Atlantic salmon could be affected by illegal/incidental recreational fishing for other fish species. Atlantic salmon parr are sometimes accidentally caught by recreational anglers pursuing other species, like brook trout. In some cases, these Atlantic salmon are not released, as required by Maine law, because of species misidentification. Intentional poaching of Atlantic salmon, particularly adults, does occur in Maine; it is unknown, however, if poaching effects Atlantic salmon in the action area or if un-intentioned catches have occurred in Felts and Eaton Brooks.

4. EFFECTS OF THE ACTION

This section of the Biological Opinion analyzes the direct and indirect effects of the proposed action on the Atlantic salmon and its critical habitat, and the northern long-eared bat, together with the effects of other activities that are interrelated or interdependent (50 CFR 402.02; June 30, 1986). Effects of the action that reduce the ability of a listed species to meet its biological requirements may increase the likelihood that the proposed action will result in jeopardy to that listed species or in destruction or adverse modification of designated critical habitat. Indirect effects are those that are caused by the proposed action, are later in time, but are still reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend upon the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration.

4.1 Effects to Northern Long-eared Bat

Maine contains approximately 17.7 million acres of forest (Maine Forest Service, 2013). With an expected state-wide distribution, a large portion of forested area can be considered suitable habitat for the northern long-eared bat. This species is known to occur over a range that includes more than 30 states. The proposed action would permanently remove approximately 72 acres of forest, or approximately 0.0004 percent of potentially available habitat in Maine. At a smaller scale, the I-395 action area consists of 28,538 acres; approximately 22,736 acres of which is forested, where 0.3 percent of the action area would be permanently impacted. The direct impacts of 72 acres were calculated by using the limits of the preliminary cut/fill lines and adding 25 feet of clearing to the right-of-way line. The amount of forested clearing associated with this project represents a very small fraction of forest available to northern long-eared bat at local, State and range-wide scale.

Only three hibernacula are known for this species in Maine. All are in northern and western Maine, approximately 95 miles from the project location. At this distance, the proposed action would have no effect on potentially occupied northern long-eared bat hibernacula.

Construction of this project is not anticipated to begin until after the northern long-eared bat is listed as endangered under the ESA. Therefore, the MaineDOT and the FHWA have committed to reinitiate section 7 consultation when the northern long-eared bat and, potentially, critical habitat have been listed.

4.2 Effects to Atlantic Salmon

The proposed roadway will cross streams that are Atlantic salmon critical habitat. Also within the action area are intermittent streams, which do not meet the critical habitat definition, and perennial streams with natural falls that prevent Atlantic salmon from occupying the reaches upstream of the falls. The MaineDOT and the FHWA have proposed road-stream crossing structure types over Atlantic salmon critical habitat that are consistent with the stream crossing design known as stream simulation. A stream simulation design protects and maintains aquatic organism habitat and passage, while also addressing the FHWA and the MaineDOT hydraulic design requirements. The Service commonly refers to this structure sizing as a *1.2 times bankfull width structure*. The terms are used herein interchangeably. Road-stream crossing structure installation will produce two effect types: direct, which regards construction effects on Atlantic salmon; and indirect, the operation and maintenance period, which addresses critical habitat effects.

4.2.1 Road-stream Crossing Structure

The construction of four road-stream crossing structure has the potential to directly affect Atlantic salmon. Construction of 1.2 time bankfull structures would provide Atlantic salmon access to upstream habitat and prevent habitat degradation through the roadway corridor. Undersized road-stream crossing structure can cause excessive stream channel sedimentation and erosion, degrading Atlantic salmon habitat and potentially becoming a passage barrier. It is unknown if adult Atlantic salmon utilize the streams within the proposed action area, but it is possible due to the Felts and Eaton Brooks' bankfull widths (15 feet and 30 feet, respectively), which are watersheds large enough to provide suitable habitat for Atlantic salmon spawning. Also, the MDMR sampling data indicate that Atlantic salmon occur in both streams, but it is unknown if the release sites and subsequent sampling activities were located within the action area.

The project may result in temporary interruption or delay to Atlantic salmon movement/migration during road-stream crossing structure construction due to the cofferdams creating a passage barrier. Instream construction requires cofferdam use to minimize/eliminate water within the construction area, and to eliminate discharges of sediment, which is a necessary part of the road-stream crossing structure construction process. The MaineDOT installs cofferdams in a manner that minimizes turbid water discharges downstream from cofferdam installation and removal. Turbid water discharge reduction efforts can eliminate or minimize potential harm to Atlantic salmon that result from inhaling suspended sediment particles.

In an effort to minimize and avoid direct effects to Atlantic salmon, the FHWA and the MaineDOT have proposed temporary stream dewatering measures to minimize and/or avoid Atlantic salmon effects. Following procedures described in section 1.0 of this Biological Opinion addressing cofferdam installation, biologists will first visually assess the site for Atlantic salmon presence while utilizing netting techniques, before proceeding to electrofish the stream. Electrofishing, following the *MaineDOT Fish Evacuation Plan* (Appendix A), will produce minimal adverse effects to Atlantic salmon, if present. Once all fish are removed from the stream, complete dewatering can occur so that the instream construction area between the cofferdams lacks water.

The Service concludes that juvenile Atlantic salmon occurrence during construction is possible based on prior documentation in both streams and the lack of severe passage barriers downstream of the action area. Additionally, a Service and a MaineDOT field evaluation determined that potential rearing habitat was present in Felts Brook within the action area. The rearing habitat model identifies that both streams support rearing habitat, although it is of lower quality. However, the MaineDOT indicates that Atlantic salmon habitat quality in Felts Brook is low due to limited tree cover and low stream velocities, which can result in warmer water temperatures that can preclude Atlantic salmon use.

4.2.2 Pile Driving Activities and Cofferdam Installation

Driving sheet piles may be necessary for cofferdam construction. Different techniques are used, but the MaineDOT typically uses the impact hammer or vibratory hammer. The MaineDOT has proposed vibratory hammer use for this project. In western U.S. states, where several listed Atlantic salmon species occur, an interagency working group that included the Service, the NMFS and the respective state DOT's convened to address effects to Pacific coast fish species. This working group produced interim criteria for evaluating injuries created from pile driving (FHWG 2008). The workgroup established dual sound criteria for injury, measured 10 meters away from the pile, of 206 dB peak and 183 dB Sound Exposure Level (SEL), where the dB peak is associated with punctuated singular activities, such as blasting rock using explosives and the SEL measurement is associated with sustained noise production, such as pile driving. The second criterion applies only to fish weighing less than two grams, where fish more than two grams have a 187 dB SEL threshold.

The vibratory hammer works by causing soil surrounding the pile to liquefy, allowing the pile to be driven/pushed through the sediment. Data indicates that vibratory driving sound levels are generally 10 to 20 dB lower than impact hammer driving (CALTRANS 2009). The harm thresholds for impact driving are likely much lower than the thresholds for the non-impulsive continuous sounds produced by vibratory hammers. Therefore, the FHWG threshold for SEL described above does not apply to the use of vibratory hammers (CALTRANS 2009). Research is currently being conducted to update the existing FHWG guidance to include thresholds for vibratory hammers. Although FHWG guidance does not exist for this vibratory hammer threshold yet, Illingworth and Rodkin (CALTRANS 2009) have used information provided by Popper et al (2006) to conclude that the threshold for "harm" when using a vibratory hammer is between 183 dB and 220 dB SEL (includes fish under two grams in weight). Given the higher thresholds of effect and the relatively low noise levels, it is not anticipated that the driving of

piles with a vibratory hammer will cause physical injury to listed fish, in this case, to Atlantic salmon at any life stage.

Behavioral responses can be expected from listed species as a result of elevated sound pressure levels. The NMFS recommends that the onset of behavioral responses begins at 150 dB RMS (NMFS 2012). Behavioral effects may include altered migration routes, changes in forage areas, and altered behavior in the presence of predators. Elevated noise levels may reduce the ability of a listed species to hear and avoid a predator.

Table 3: Summary of near-source (10 meters) unattenuated (loudest) sound pressures for in-water pile driving using a vibratory hammer (CALTRANS 2009).

Pile Type	Pile Diameter	Water Depth	Peak(dB)	RMS(dB)	SEL(dB)
Steel Sheet	0.6 meters	15 meters	182	165	165

As shown in Table 3, the MaineDOT and the FHWA have indicated that effects from using vibratory hammer to drive piles is expected to stay below limits that could potentially injure fish near this activity. However, a potential behavior response may be realized when noise levels exceed 150 dB RMS. Caltrans (2009) identifies two water depth categories; shallow and deep. Shallow water is defined as depths less than 200 meters and deep water is greater than 200 meters.

In smaller stream systems, it is practicable to use a block net prior to installing any sheet piles as components of cofferdams. Block nets are used to seine the stream first, and then the nets are installed downstream and upstream of cofferdam sites prior to installing the cofferdams. This process minimizes fish occurrence within the instream construction area and prevents fish from re-entering the area before cofferdam installation is complete. By doing this, the block nets could be established within the stream at a distance from the pile driving activity that would avoid juvenile Atlantic salmon being exposed to noise at 150 dB RMS or greater. However, the MaineDOT has indicated that Felts and Eaton Brooks are too large for block nets to be used in this manner. Therefore, this minimization measure cannot be used, resulting in potential behavioral effects to Atlantic salmon parr, if present.

This Biological Opinion does not analyze any effects that result in Atlantic salmon take related to noise producing activities such as pile driving or rock blasting using explosives. Therefore, no Atlantic salmon take is authorized associated with those activities.

4.2.3 Turbid Water Discharges

Turbid water discharges into Atlantic salmon is expected where instream construction activities may occur, but also can be produced from unstabilized soil that erodes into streams. Sediment may remain suspended in the water column and/or can eventually settle into the streambed. Potential adverse effects on Atlantic salmon could include the following:

- reduction in feeding rates;
- increased mortality;
- physiological stress;

- behavioral avoidance of the construction area;
- physical injury (e.g., gill abrasion); and,
- reduction in prey availability.

Conversely, an increase in stream turbidity may provide temporary enhancement of cover conditions, which has been suggested, may provide smolts with protection from predation (Danie 1984).

In a review of sediment loading and turbidity effects on fish, Newcomb and Jensen (1996) concluded that more than six days exposure to total suspended solids (TSS) greater than 10 mg/l is a moderate stress for juvenile and adult salmonid. A single day exposure to TSS in excess of 50 mg/l is also a moderate stress to salmonid. The MaineDOT and the FHWA indicate that while instantaneous sediment loads may approach this amount, the project will not result in individual sedimentation events that last greater than 24 hours at a time. The Service acknowledges that while individual turbid water discharges that increase TSS lasting more than 24 continuous hours are unlikely, there is no quantitative data specific to the MaineDOT projects that supports their statement that TSS discharges greater than 50 mg/l will or will not occur in association with the proposed action. Furthermore, the MaineDOT is expected to implement BMP measures, as per their manual *Best Management Practices for Erosion and Sedimentation Control* (MaineDOT 2008a), that will minimize any potential effects from sediment disturbance.

4.2.4 Effects from Hazardous Materials Associated with Construction

As a component of the MaineDOT's SEWPCP effort, they or their contractor will develop and implement a Spill Prevention Control and Countermeasure Plan (SPCCP) designed to avoid any impacts to streams from hazardous chemicals associated with construction activities, such as diesel fuel, oil, lubricants, and other hazardous materials. All refueling or other construction equipment maintenance will be done at a location consistent with the SPCCP and in a manner that avoids/prevents chemical or other hazardous materials getting into the stream.

Petroleum-based materials, such as diesel fuel and oil, contain polycyclic aromatic hydrocarbons (PAHs). PAHs can be acutely toxic to salmonid and other aquatic organisms at high exposure levels or can cause sublethal effects at lower exposures (Albers 2003). Careful adherence to an approved SPCCP, as part of an overall SEWPCP, should make it highly unlikely that Atlantic salmon would be exposed to harmful chemicals from a spill or accident. Additionally, the MaineDOT has proposed related conservation measures as part of the action (Section 1.10).

4.3 Effect to Atlantic Salmon Critical Habitat

The new roadway corridor will cross streams that are Atlantic salmon critical habitat, and streams that are either intermittent or perennial stream lengths upstream of a natural fall that precludes Atlantic salmon access to that length, which are not Atlantic salmon critical habitat. The MaineDOT and the FHWA have proposed road-stream crossing structures over Atlantic salmon critical habitat that are consistent with a design type known as stream simulation. Stream simulation design protects aquatic organism habitat and passage, while

also addressing the FHWA and the MaineDOT's hydraulic design requirements. The Service commonly refers to this structure sizing as a *1.2 times bankfull width structure*.

Specifically, the MaineDOT and the FHWA have committed to installing stream simulation road-stream crossing structure over three crossings of Felts Brook and one crossing of Eaton Brook. The MaineDOT and the FHWA have identified other streams that will be crossed by the proposed roadway and are not Atlantic salmon critical habitat (e.g. intermittent streams or streams with a natural upstream passage barrier). On those streams, the MaineDOT is expected to install road-stream crossing structure based on designs addressing hydraulic capacity, not stream simulation. The Service has evaluated those streams and agrees they are not critical habitat. However, although a stream may not be critical habitat, there is a potential for an intermittent stream to affect downstream critical habitat through thermal impacts. A new road-stream crossing structure on a non-critical habitat stream can slow stream velocity to the point that the water temperature may increase, especially when the structure causes ponding. In those instances, heated water may enter downstream critical habitat, increasing water temperature beyond the optimal range.

The Service has determined that these non-critical habitat road-stream crossing structures are not likely to affect downstream critical habitat. Thermal impacts are likely to occur when the heated water source is proximal to the downstream critical habitat. These non-critical habitat road-stream crossing structures are not anticipated to cause this effect because 1) stream conditions between the road-stream crossing structure location and the critical habitat is far enough downstream that an effect cannot be reasonably determined and/or, 2) conditions upstream of the non-critical habitat road-stream crossing structure location are poor, creating a thermal effect greater than the proposed road-stream crossing structure could cause.

The project also has the potential to impact water quality by stormwater runoff resulting from the new impervious area associated with the proposed roadway. The MaineDOT is required to treat stormwater in accordance with Chapter 500 of the Maine Stormwater Law under the Natural Resources Protection Act. Profile grades of the proposed roadway have not been determined, so locations of treatment strategies are not yet known. The MaineDOT and the FHWA have committed to treatment strategies that shall avoid impacts to Atlantic salmon and its critical habitat associated with long-term stormwater management. Appendix B contains more information on stormwater mitigation measures regarding temperature buffering. The Service, at this time, considers adherence to the DEP and the MaineDOT agreement assurance that temperature effects will be adequately addressed. In addition, please note that this biological opinion and incidental take permit will not authorize any take associated with thermal impacts, as we assume that such take will not occur.

The project proposes four road-stream crossing structures that would be designed to meet the Service's recommended 1.2 times stream bankfull width standard within the project action area where Atlantic salmon critical habitat occurs. The MaineDOT will achieve this by installing either a bottomless structure or a four-sided structure with natural substrate. The results of the designs would maintain or mimic the natural conditions at all crossings.

Fill material acquisition activities may also affect Atlantic salmon critical habitat. At this point in project development, the MaineDOT and FHWA have indicated that other fill material sourcing sites could be used that occur outside the 600 foot corridor buffer and the 0.5 mile radius terminal interchange buffers. The Service's effects analysis regarding these sites must assume that such activities will produce no effects to Atlantic salmon critical habitat. Concurrence on applying a no effect determination to these potential parts of the action area is a result of coordination and cooperation with the MaineDOT and FHWA. The MaineDOT will develop a Special Provisions section for the construction contract that identifies measures the contractor shall take to avoid affecting listed species (i.e. no effect) and their critical habitat. If it is found that a no effect determination cannot be applied to such areas, the FHWA will reinitiate consultation as described in section 9.0 of this Opinion.

4.3.1 Altered Predator-Prey Relationships

The proposed action is not expected to have an effect on the predator-prey relationships of Atlantic salmon as the proposed road-stream crossing structure design in critical habitat will not permanently alter Atlantic salmon critical habitat quality. This design will allow stream conditions to remain in their natural state, not changing juvenile Atlantic salmon feeding behavior or the composition of their prey base.

4.3.2 Long-Term Habitat Alteration

The new crossings would be expected to either span the stream/habitat without altering the streambed or recreate the habitat inside of a four-sided road-stream crossing structure through backfilling the embedded culvert with streambed material. This design approach will prevent habitat degradation as the road-stream crossing structure design will allow natural stream channel dynamics to occur without any influence from the roadway and the road-stream crossing structure.

4.3.3 Indirect Land Use Impacts

The Draft Environmental Impact Statement (Section 3.7.1.1, page 171) addresses induced development as a result of the proposed action. The proposed connector has only two controlled access points, at the connector terminal, which means no access to local roads will be included as part of the design. The MaineDOT has evaluated indirect impacts resulting from induced growth following Oregon DOT Guidance (Oregon 2001) for project development analysis procedures, using an area of influence within one half mile radius of the terminal interchanges. Their analysis concluded that the expected effects would be limited to the one half mile radius and that area within that radius was further analyzed.

The proposed action's intent is to serve long-distance, regional and through-traffic, not to improve mobility for local users. Consequently, development induced by the proposed design would be targeted at traveler-oriented businesses (e.g., commercial uses such as gasoline stations, small motels, restaurants, and convenience stores) and be limited to the connector terminal interchanges.

Based on the MaineDOT and the FHWA analysis, each interchange could impact between 14 and 19 acres of forest and grassland areas in the general business zone in Brewer and Holden (FHWA 2012). Small, isolated areas of wetlands could be impacted. The number of new businesses is unknown because the purpose of zoning is to provide for various commercial uses such as shopping facilities with an unknown number of businesses. The intersection could result in 16 new residences within a half-mile.

The MaineDOT and the FHWA believe that if induced development is primarily commercial and traveler-oriented businesses, it would be generally consistent with existing land uses and local zoning. The impacts to existing residential uses from induced development, if the existing uses are not converted to commercial or other use, could consist of a change to the suburban character of the area. Commercial and residential development would occur with the No-Build Alternative; however, it would occur more quickly with the build alternatives because of the strong connection between transportation and land use. Because commercial and residential development would occur without implementation of a build alternative, it would not be considered a secondary impact solely related to the build alternatives. Other dynamic regional economic and development trends would have a more important influence on the establishment of those uses than construction of the build alternatives. The city of Brewer and the towns of Holden and Eddington would control new development in those areas through their planning and approval processes. Development would be guided by local comprehensive plans and zoning ordinances.

4.3.4 Effects on the Riparian Zone

The proposed action will require some vegetation, including trees, shrubs, or the herbaceous layer, to be removed from the stream banks to allow for construction access and other construction-related activities, including the placement of riprap to stabilize the road slopes around the road-stream crossing structure. Minor vegetation removal should not result in sediment input into streams, as long as appropriate erosion control best management practices, such as silt fence use, are employed before any vegetation is removed. All disturbed areas not covered by riprap will be mulched and stabilized following measures described in the MaineDOT's erosion and sedimentation control manual (2008a).

Although these activities can cause an effect to Atlantic salmon critical habitat, the Service considers these effects, such as increased sedimentation, temporary. Permanent effects are avoided by the MaineDOT implementing their erosion control measures, which have been used successfully on other roadway improvement projects requiring similar activities.

4.3.5 Effects on Stream Connectivity and Aquatic Organism Passage

Road-stream crossing structure, particularly culverts, can have adverse effects on the passage of aquatic organisms, including Atlantic salmon. Reduced habitat connectivity was identified as a stressor to Atlantic salmon when it was listed as endangered. Reduced connectivity prevents Atlantic salmon from fully using substantial amounts of freshwater habitat throughout their geographic range and changes native fish community structure by preventing or impairing access for other fish species (74 FR 29367; June 19, 2009).

During construction, the use of cofferdams will temporarily restrict movements of Atlantic salmon and other aquatic organisms. Cofferdams, however, are a standard measure used for instream construction projects to minimize the overall effects on aquatic life and habitat from various construction activities. The benefits of using cofferdams to minimize the effects of sedimentation and to protect aquatic life from damage by construction equipment outweigh the temporary blockage of movements by fish and other organisms. Once cofferdams are removed and normal stream flows are restored to the construction site, aquatic organisms will be able to reoccupy the instream construction area that was temporarily made inaccessible due to the presence of cofferdams and the diversion of stream flow.

The MaineDOT has requested an open instream construction period with restrictions. The standard instream period occurs during the annual low rainfall period where stream levels are normally lowest (July 15 through October 1). The MaineDOT shall try to complete all instream construction activities during this period. However, if construction extends past October 1, the MaineDOT has proposes to construct a bypass channel around the stream. The bypass channel will allow Atlantic salmon movement to be uninterrupted by construction activities. A bypass channel will need to be constructed prior to October 1 if it is anticipated that instream construction activities are necessary past this date.

4.4 Interrelated and Interdependent Actions and Activities

There are no interrelated or interdependent actions or activities associated with this proposed connector project.

4.5 Potential Effects Not Considered in this Biological Opinion

The MaineDOT submitted an activity addendum to the Service on December 3, 2013 regarding the action's Route 9 terminus in relation to the Meadow Brook crossing. The alignment sheets provided in the BA show potential construction activity extending approximately 1,200 feet eastward along Route 9, from the connector roadway terminus with Route 9. This activity area ends approximately 100 feet from the Route 9 crossing of Meadow Brook, but does not cross the stream.

According to the December 3, 2013, Route 9 rehabilitation activities are included with their action and may occur within 150 feet of the stream crossing, but no in-water activities are proposed. The MaineDOT and the FHWA state that proposed BMP measures for erosion and sediment control, as described in their BA and evaluated in this Biological Opinion, will be implemented. The Service concurs that roadway rehabilitation activities performed using BMP measures are consistent with the action description. However, if Route 9 rehabilitation activities are later extended eastward to include the Route 9 crossing structure on Meadow Brook, or include its stream banks, those activities are not considered in this Biological Opinion and would require consultation reinitiation following this Biological Opinion's reinitiation notice guidance.

Regarding the instream construction period, the Service has not considered potential affects to Atlantic salmon if the MaineDOT extends instream construction activities beyond October 1 without the use of a bypass channel.

5. CUMULATIVE EFFECTS

Cumulative effects are considered in this Biological Assessment, as defined under section 7 of the ESA and in 50 CFR §402.02 as those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation. Future Federal actions requiring separate consultation (unrelated to the proposed action) are not considered in this cumulative effects section of this Biological Assessment. The intent of the cumulative effects analysis is to determine the magnitude and significance of cumulative effects and to determine the contribution of the proposed action to those aggregate effects.

In May and June 2013, the MaineDOT contacted local municipalities in the action area and requested information on any planned developments. They also used the cumulative effects analysis from the project's NEPA study to predict residential and commercial growth in the context of an ESA cumulative effects analysis. After reviewing this information, their analysis determined that development growth will generally follow existing patterns and trends. Residential and commercial development is reasonably certain to occur within the action area, but likely will continue at existing rates, whether or not the proposed action occurs. This is based on the understanding that the proposed action is designed as a limited access roadway that promotes travel through the region, rather than increasing roadway system capacity for local travel. Consequently, the magnitude of development from State and/or private actions with no Federal nexus that may affect listed species is not anticipated to change from current activity levels.

6. CONCLUSION

The ESA establishes a national program to conserve threatened and endangered species of fish, wildlife, plants, and the habitat on which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with the Service, the National Marine Fisheries Service (NOAA Fisheries Service), or both, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their designated CHs. Section 7(b)(4) requires the provision of an Incidental Take Statement that specifies the impact of any incidental taking and includes reasonable and prudent measures to minimize such impacts.

This Biological Opinion does not rely on the regulatory definition of "destruction or adverse modification" of critical habitat at 50 CFR 402.02. Instead, we have relied upon the statutory provisions of the ESA to complete the following analysis with respect to critical habitat.

6.1 Northern Long-eared Bat

The MaineDOT and the FHWA have coordinated with the Service regarding a northern long-eared bat section 7 consultation. Several factors were considered regarding the need to conference without the project design and construction phases yet scheduled. These factors include the impending species listing, which is likely to occur spring 2015, and a potential subsequent critical habitat listing rule which would occur on a later schedule than the northern long-eared bat species listing. The MaineDOT and the FHWA have indicated that it is possible

that the species and critical habitat listings are likely to occur prior to design phase initiation. Consequently, new information regarding species occurrence after its listing in 2015 and the anticipated critical habitat rule details, are likely to produce conditions in which ESA section 7 conference/consultation is necessary for potential northern long-eared bat effects not addressed here. Therefore, the action's effects on the northern long-eared bat are limited to a jeopardy analysis.

Based on data provided by the MaineDOT and the FHWA, the Service concludes that the I-395/Route 9 connector project (action) will not jeopardize the continued existence of the northern long-eared bat due primarily to the minimal amount of potentially suitable habitat that would be permanently impacted relative to the total habitat area available range-wide.

6.2 Atlantic Salmon

After considering the current status of Atlantic salmon and its designated critical habitat, the action's environmental baseline, the effects of the proposed action, and the potential for future cumulative effects in the action area, it is the Service's Biological Opinion that the proposed action by the FHWA – funding of a new roadway facility in Eddington, Brewer and Holden, Maine - is not likely to jeopardize the continued existence of the Atlantic salmon throughout all or a significant portion of its range. Furthermore, the proposed action is not expected to result in the destruction or adverse modification of critical habitat. In reaching these conclusions, the Service considered the best available scientific and commercial information regarding Atlantic salmon and the likely effects of the proposed action on this species and its critical habitat.

The proposed action will result in short-term adverse effects to Atlantic salmon and its critical habitat during construction activities. These effects are relatively small in spatial and temporal scope and in some cases will be reversed upon completion of construction. For example, cofferdams will be completely removed from the stream bottom and normal stream flows will be returned to the dewatered construction area).

Construction activities are expected to result in adverse effects to forty (40) juvenile Atlantic salmon and no adult Atlantic salmon. Many of the construction-related adverse effects to Atlantic salmon are not expected to result in mortality, but rather temporarily affect normal behavior through capture and relocation to another part of the stream or blocked access to upstream or downstream habitat that results in temporary disruption of normal activities, such as feeding. The number of juvenile Atlantic salmon potentially harmed by the action was based on the catch per unit effort of the most recent the MDMR Atlantic salmon sampling data from Eaton and Felts Brook and the amount of modeled rearing habitat available for each stream, within the action area.

Mortality could result, however, from electrofishing, stranding inside a dewatered cofferdam, or other construction-related activities. These adverse effects on 40 individual juvenile Atlantic salmon are not expected to influence the overall population status of the Penobscot Bay SHRU or the entire distinct population segment, which at the present time is largely being sustained by conservation hatchery stocking.

Regarding adverse effects on Atlantic salmon critical habitat, road-stream crossing structures can have a variety of long-term effects on stream habitats, stream processes, and aquatic organisms if installed or are not designed properly. The Service concludes that critical habitat within the action area, including the habitat upstream of the roadway corridor on Felts and Eaton Brooks and their tributaries, will function as suitable and unimpaired after construction is complete and these streams will continue to serve a conservation and recovery role for Atlantic salmon. All Atlantic salmon life stages should be able to move through the new stream crossing structures without effects and the structures will maintain natural stream channels, given that these structures will be wider than the stream's bankfull width and that the properly-sized structure should support a natural stream substrate. Additionally, during the operation and maintenance phase of this new roadway facility, stormwater management from new impervious surface areas will be treated in a manner that does not produce adverse thermal effects to critical habitat streams.

7 INCIDENTAL TAKE STATEMENT

Section 9 of the ESA prohibits the take of endangered species without special exemption. The term *take* is defined to include harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include an act that actually kills or injures wildlife. Such acts may include significant habitat modification or degradation that results in death or injury to a listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. The term harass is further defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA, provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

7.1 Amount or Extent of Take

The Service anticipates that there will be incidental take of Atlantic salmon as a result of the proposed action. This take will be limited to ten (10) juvenile Atlantic salmon in Felts Brook and thirty (30) juvenile Atlantic salmon in Eaton Brook. Incidental take caused by the adverse effects of the proposed action could include the following: 1) the capture and relocation of juvenile Atlantic salmon during construction area isolation and dewatering; 2) the mortality of juvenile Atlantic salmon as a result of electrofishing or other capture methods used during fish relocation activities; and 3) the stranding death of juvenile Atlantic salmon inside dewatered cofferdams.

The following summarizes the anticipated amount of incidental take associated with the proposed action, as derived from the analysis and discussion above in Section IV EFFECTS OF THE ACTION:

- Ten (10) juvenile Atlantic salmon from Felts Brook and thirty (30) juvenile Atlantic salmon from Eaton Brook that are either 1) displaced from or captured and temporarily relocated from the instream construction area or 2) left stranded inside the cofferdams and subsequently killed in association with stream de-watering, or 3) killed as a result of electrofishing or other capture techniques used during fish relocation activities.

- No take of adult Atlantic salmon is expected or authorized.

- No take of any Atlantic salmon is authorized associated with injurious noise producing activities such as pile driving or blasting using explosives.

7.2 Reasonable and Prudent Measures

Conservation measures designed to avoid and minimize effects on listed species and critical habitat are integral components of the proposed action, and this proposed action is expected to be completed consistent with these measures. We have completed our effects analysis accordingly. The Reasonable and Prudent Measures described below are nondiscretionary and must be implemented by the FHWA (or by the MaineDOT and their contractors) in order for the exemption in section 7(o)(2) to apply. The FHWA has a continuing duty to regulate the activities covered by this Incidental Take Statement. The protective coverage of section 7(o)(2) will lapse if the FHWA fails to require adherence to all the terms and conditions of the Incidental Take Statement or fails to exercise that discretion as necessary to retain the oversight to ensure compliance with these terms and conditions. Further consultation may be required to determine what effect any modified action may have on listed species or designated critical habitat.

The Service considers the full application of conservation measures included as part of the proposed action and the implementation of the following reasonable and prudent measures to be necessary and appropriate to minimize the likelihood of incidental take of the Atlantic salmon associated with the proposed action. Any deviation from the following reasonable and prudent measures will be beyond the scope of this consultation and will not be exempted from the prohibition against take as described in this Incidental Take Statement:

- minimize the adverse effects to and incidental take of Atlantic salmon by employing construction techniques that avoid or minimize adverse effects to water quality, aquatic and riparian habitats, and all aquatic organisms;

- minimize the adverse effects to, and incidental take of, Atlantic salmon related to aquatic habitat connectivity and fish passage by ensuring that the project is built as proposed;

- minimize changes to stream water quality including stream velocity, turbidity levels and temperature from existing conditions through stormwater management, application of best management practice measures during construction and as part of the roadway operation and maintenance period;

- ensure completion of a monitoring, evaluation, and reporting program to confirm that this project has been effective in minimizing incidental take from the FHWA-funded activity and that the amount of allowable incidental take is not exceeded;

- construction impacts shall be confined to the minimum area necessary to complete the project;
- minimize effects of runoff from disturbed sites during construction through implementation of best management practices measures for erosion and sediment control;
- monitor project implementation and compliance with conservation and best management practices measures;

  and,
- construction shall not inhibit Atlantic salmon passage through road-stream crossing structures or degrade critical habitat quality after project completion during the maintenance and operation period.

7.3 Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the FHWA, the MaineDOT, and all contractors must comply with the following terms and conditions, which implement the reasonable and prudent measure described above and outline the required monitoring and reporting requirements. These terms and conditions are nondiscretionary.

1. New impervious surface and discharged stormwater runoff quantity and quality must be treated using best management practices that incorporate water infiltration and/or filtration, avoiding direct water discharge into designated Atlantic salmon critical habitat or any surface waterway that subsequently directly discharges into critical habitat, raising stream temperatures above pre-construction conditions.
2. All applicable conservation measures described in the Biological Opinion will be fully implemented.
3. Monitoring of BMP implementation will be conducted by the MaineDOT to evaluate compliance throughout the construction period. An annual report will be submitted to the Services' Maine Field Office each December for the previous November through October construction period.
4. Site preparation, including cofferdam installation and removal, and temporary access road establishment, will not cause sedimentation and adverse levels of turbid water discharge into streams following erosion and sedimentation control requirements in the MaineDOT's' **Best Management Practices for Erosion and Sedimentation Control** document.
5. Migration/movement barrier/delay due to cofferdam placement will be minimized by limiting cofferdam placement to the time necessary to complete instream activities. The cofferdams will be removed within two days of the completion of instream construction.

6. Instream construction shall occur during the low flow period (July 15 to October 1). If the MaineDOT determines that any instream construction activity cannot be completed prior to October 1, a bypass channel shall be constructed to avoid affecting Atlantic salmon movement in Felts and Eaton Brooks. All bypass channels shall be constructed and operating by October 2 to avoid consultation reinitiation.

7. Hydroacoustic impacts from sheet pile installation (if applicable) will not adversely affect Atlantic salmon. The MaineDOT shall manage noise producing activities to within noise thresholds described in this Biological Opinion. Hydroacoustic monitoring shall be conducted as described and reports shall be submitted to the Service two weeks after completing each pile driving activity, including cofferdam completion or installed bridge piles for each bridge.

8. Disturbance and construction association with crossing structure placement will not adversely affect Atlantic salmon due to instream construction activities occurring within a cofferdam.

9. Underwater acoustic monitoring will be conducted to track noise levels associated with any sheet pile installation. Acoustic monitoring will be required wherever instream pile driving activities occur in Atlantic salmon critical habitat. A single hydrophone will be placed at 10 meters upstream and downstream of noise producing activity. The MaineDOT shall continually monitor noise levels to assure activities that may approach the published threshold values for potentially injuring juvenile salmonid (183 dB re 1 µPa CSEL and/or 206 PEAK dB re 1 µPa) will receive noise attenuation measures immediately, assuring the threshold values are not reached. The MaineDOT shall provide monitoring reports to the Service after the completion of each cofferdam installation or immediately after completion of similar activities.

10. All Atlantic salmon mortalities from electrofishing or other related activities shall be reported to the Service (Thomas Davidowicz at 207/866-3344, Extension 152; Fax 207/866-3351) within 48 hours of occurrence. Any dead Atlantic salmon shall be immediately preserved (refrigerate or freeze) for delivery to the Services' office in Orono, Maine. If the Service is not available, contact the National Marine Fisheries Service (NMFS) in Orono, Maine (Dan Tierney; 207/866-3755) to arrange for delivery. Upon completion of each fish evacuation event, the MaineDOT shall report the total Atlantic salmon mortality level, if any, for that event. An event is defined as any single attempt to evacuate all fish from a single cofferdam. An event is complete when the cofferdam is dewatered and construction activities may begin.

11. Adverse effects to Atlantic salmon's ability to migrate, forage, shelter, and spawn are not expected as road-stream crossing structures in critical habitat will be designed to span perennial streams using a minimal structure horizontal clearance that is 1.2 times each streams' bankfull width.

12. To address potential effects to listed species and critical habitat resulting from fill material acquisition outside the roadway corridor and terminal interchange buffers, the MaineDOT will include language in the construction contract, via a Special Provision,

which states the contractor shall avoid all potential effects to listed species and critical habitat when obtaining fill material needed for construction. The Service will receive a copy of this Special Provision for review prior to finalization of the Plans, Specifications and Estimate (PS&E) package. This condition is required because the Service's Biological Opinion and the Incidental Take Statement do not evaluate nor authorize any adverse effects or take associated with fill material acquisition outside the roadway corridor buffer and terminal interchange buffers portion of the action area. If avoidance cannot be achieved, the FHWA should reinitiate consultation or the contractor would have to apply for an ESA section 10 permit to acquire an incidental take permit, a time-consuming process that would likely affect the construction schedule.

13. As described in Appendix B and in accordance with Chapter 500 of the Maine Stormwater Law under the Natural Resources Protection Act, the MaineDOT and the FHWA, for those sections of the proposed alignment that discharge into streams, the MaineDOT shall design stormwater management systems that provides the greatest thermal buffering.

8. CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

- The FHWA and the MaineDOT should collaborate to conduct monitoring of stream turbidity levels associated with various construction activities at several different project locations, preferably representing as much variation in site conditions as possible. Collecting these data will be useful for future section 7 consultations regarding the MaineDOT projects to assist in the assessing the effects of various construction activities on Atlantic salmon habitat and their habitat.

- In addition, the FHWA/MaineDOT should record Felts and Eaton Brook stream temperatures downstream of the proposed roadway corridor beginning one year prior to construction initiation or use existing data collected within the most recent 10 year period. During the facility operation period, record stream temperatures at the same sampling locations four times annually (seasonally) for two years, beginning immediately after construction is complete. Provide this data to the Service for analysis and discussion.

9. REINITIATION NOTICE

This concludes formal consultation for the FHWA's proposed funding of I-395 and Route 9 Connector: Proposed New Roadway Alignment in Brewer, Holden and Eddington, Maine. As provided in 50 CFR 402.16, reinitiation of formal consultation is required when discretionary Federal agency involvement or control over the action has been retained (or is authorized by

law), and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this Biological Opinion; or (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this Biological Opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease, pending reinitiation.

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Appendix A

MaineDOT Fish Evacuation Plan

Fish Evacuation Plan

Maine Department of Transportation Atlantic Salmon Evacuation Plan and Disinfection Procedures (updated 1/2013)

Qualified MaineDOT biologists will be capturing, handling, and removing fish from within cofferdams and water diversions prior to dewatering for projects where there is a concern that juvenile Atlantic salmon might be trapped within the project area. On projects where juvenile Atlantic salmon are not present, qualified MaineDOT Environmental Staff will be capturing, handling, and removing fish from within cofferdams and water diversions prior to dewatering. Capturing and handling juvenile Atlantic salmon causes physiological stress and can cause physical injury or mortality; to minimize these effects the following procedures will be followed by MaineDOT during activities associated with projects in the batch consultation should Atlantic salmon be trapped during project activities:

1. An adequate number of MaineDOT Environmental Office staff will be onsite during construction and dewatering of all cofferdams and for fish salvage activities.

2. If it is possible that an adult salmon could be present in the construction area, a visual survey of the construction area to inspect for the presence of an adult salmon will be completed. Further precautions for adult salmon will be followed after the visual inspection to ensure that adult salmon are removed from the construction area prior to electrofishing.

3. MaineDOT Environmental Office staff will follow the Maine Atlantic Salmon Commission Disinfection Procedures (below).

4. Following installation of the upstream block net, fish may be hazed out (if site conditions warrant) of the proposed dewatered sections by walking seines downstream from the upstream block net location to the end of the construction site in an attempt to 'herd' fish out of the worksite. A downstream block net would then be installed and efforts to capture remaining fish with dip-nets would follow. MaineDOT fisheries biologists experienced with construction area isolation, and competent to ensure the safe handling of all ESA-listed fish, will conduct or supervise the operation.

5. Install a block net or cofferdam downstream of the project site immediately after the sweep to ensure fish will not move back into the project area. The block net will be secured to the stream channel, bed, and banks until fish capture and transport activities are complete. Size and place the block net in the stream in such a way as to exclude ESA-listed juvenile salmonids expected to occur within the project vicinity at the time of construction without otherwise impinging these fish on the net. Monitor the block net once a day to ensure that it is properly functioning and free of organic accumulate.

6. Use one or a combination of the following methods to most effectively capture ESA-listed fish and minimize harm (Figure 1). Fish salvage shall proceed from the least invasive method to most invasive. Note that site conditions and other logistics may dictate the practicality of methodology used.

a) Hand Netting. Collect fish by hand or dip-nets, as the area is slowly dewatered.

b) Seining. Seine using a net with mesh of such a size as to ensure entrapment of the residing ESA-listed fish. The bottom or lead line has lead weights strung or

crimped onto it to weight the net. The top or float line includes cork, polystyrene foam, or plastic floats to keep the top of the seine near the water surface. The net is attached to wood or metal poles to handle the seine. Two persons hold the seine in a vertical position above the water and perpendicular to the flow at the downstream edge of a riffle. They then thrust the poles and lead line of the seine to the stream bottom. The poles are allowed to slant downstream so that the flow forms a slight pocket in the seine. This procedure is continued from one shoreline across the width of the channel to the other shoreline so that the entire riffle is sampled. The seine is then lifted out of the water and the fish removed (Bramblett and Fausch 1991).

c) *Trapping. Minnow traps (or gee-minnow traps) are net or wire enclosures that trap live fish. Fish swim through the funnel shaped openings and are guided to a narrow opening at the center of the trap. These traps are best suited for collecting juvenile fish or small adult fish in pool habitat. Traps should be baited and fished overnight. In areas of moderate to high fish densities, maximum catches in minnow traps are approached within one to two hours, with catches dropping sharply when traps are fished longer than 24 hours between checks. For bait, salmon eggs are most widely used, but hamburger, canned cat food, salmon flesh, canned corn, shrimp, and sardines have been used successfully (Magnus et al. 2006).*

d) *Electrofishing. Before dewatering, electrofishing will be used as the last evacuation measure following the above other means of fish capture, or if they are not practical or effective following NMFS (2000) guidelines found at: http://www.nwr.noaa.gov/ESA-Salmon-Regulations-Permits/4d-Rules/upload/electro2000.pdf*

   a. *Prior to the start of sampling at a new location, water temperature and conductivity measurements must be taken to evaluate electroshocker settings and adjustments.*
   b. *Each electrofishing session must start with all settings (voltage, pulse width, and pulse rate) set to the minimums needed to capture fish. These settings should be gradually increased only to the point where fish are immobilized and captured, and generally not allowed to exceed conductivity-based maxima indicated in the NMFS (2000) guidelines. Only direct current (DC) or pulsed direct current (PDC) should be used.*
   c. *Electrofishing will not commence if the presence of an adult Atlantic salmon is suspected.*

Figure 1. *Examples of fish salvaging methods.*

7. Handling of fish:

a) Juvenile Atlantic salmon will be netted (1/4" knotless nylon) and immediately placed in a disinfected 5-gallon bucket filled with aerated stream water of ambient temperature.

b) Adult Atlantic salmon will be crowded into a handling device utilized by Maine Department of Marine Resources. The device consists of a rubber tube that is closed on one end and open on the other (Figure 2). Small holes are placed in the closed end to allow some water out but allow all of the water to drain. Any adult salmon captured this way will be moved immediately outside of the exclusion with the handling device and will not be held.

c) All other fish species will be placed in a disinfected 5-gallon bucket with aerated stream water of ambient temperature and released upstream, if possible, or downstream of the project if the upstream does not contain suitable habitat, or if construction operations dictate, under the assessment by the on-site biologist.

d) Minimize the number of fish stored in each 5-gallon buckets used for handling bucket to prevent overcrowding.

e) Handling time will be minimized. Monitor water temperature in buckets and well-being of captured fish.

f) Release fish from the isolated reach into a pool or area that provides cover and flow refuge after fish have recovered from stress of capture. Fish release upstream of the project site is preferred as sediment impacts would not likely affect individuals upstream of the crossing, but downstream release may be necessary is upstream reach is not suitable habitat for release or if construction operations dictate.

***Figure 2**- 'Rubber sock' for adult salmon handling*

Photo courtesy of Maine MDMR

8. If need be, all salmonids will be clearly photo-documented for identification purposes. Photos will likely not be taken of Adult Atlantic salmon to ensure minimal handling time.

9. A report and any photographs of transferred salmon will be submitted to U.S. Fish & Wildlife Service, NOAA Fisheries, the Maine Department of Marine Resources, the Maine Department of Inland Fisheries & Wildlife and the appropriate action agencies (ACOE and FHWA).

Due to variability in construction timing, potential scheduling conflicts, and other potential unforeseen issues, to ensure coverage and eliminate project delays several MaineDOT employees or their designees will be available during construction and dewatering of cofferdams. The list of qualified MaineDOT Environmental staff includes:

1. *Eric Ham*
2. *Richard Bostwick*
3. *Jared Stanley*
4. *Ryan Annis*
5. *Mike Clark*
6. *Val Derosier*

In addition to the staff listed above, other Environmental staff members, including qualified fisheries consultants, may be added pending USFWS approval. Anyone electrofishing will be required to have experience electrofishing salmonids in Maine. MaineDOT may solicit the aid of fisheries biologists from the USFWS, NMFS or MDMR if agency staff is available to assist at the necessary time.

Biosecurity guidelines are practical steps that can be taken to minimize the spread of unwanted organisms. The guidelines below are designed to provide direction to MaineDOT biologists working in Maine's lakes, rivers, and streams in order to minimize the potential for spread of aquatic species, particularly invasive species. These guidelines, which were adapted from the Maine Department of Inland Fisheries & Wildlife guidelines and have been written to separate aquatic plants, aquatic animals, and aquatic pathogens.

I. Equipment:
1 large (40+ gallon) trashcan
Portable hand-pump sprayer for field disinfection
Large stiff bristle brush
Spray bottle
Rubbing alcohol
Nolvasan disinfectant

II. Procedures to minimize the spread of aquatic plants
Personnel - visual inspection of personal equipment (i.e. boots/waders/gloves) with hand removal of plants before leaving area.
Other Equipment- same as above
Dip nets, trapnets and leads - aquatic plants must be removed from nets before they are moved between waters. Nets should be visually inspected on land with hand removal of plants before leaving the sampling area. After seasonal use, nets will be cleaned, thoroughly dried in direct sun or indoor storage area, and re-inspected to remove any remaining plant material. Ensure all

net sections and components are thoroughly dry for a minimum of 3 days. When possible, clean/dry nets and leads should be used between waters.
Reporting Requirements - Aquatic plants of unknown species or plants known to be aquatic nuisance species should not be transported unless placed in a sealed container. Small specimens may be transported to the Maine Department of Environmental Protection for species identification (DEP contact: John McPhedran (207) 287-2813).
Waters with Documented Infestations – Biological staff should be extra diligent when working on waters with known infestations to prevent the further spread of invasives. When possible, staff should minimize contact and disturbance of aquatic invasive plant beds to reduce the risks of spreading the plant within the water being sampled and elsewhere. A current list of known plant infestations is available at MDEP's website (www.maine.gov/dep/blwq/topic/invasives/doc.htm).

III. Procedures to minimize the spread of aquatic animals
Personnel- personal equipment (i.e. boots/waders/gloves) should be rinsed clean of all visible mud and aquatic debris.
Other Equipment - rinsed clean of mud and aquatic debris.
Dip nets, trapnets and leads - Remove as much mud and aquatic debris as possible on site. After seasonal use, trapnets should be transported to maintenance camp or other suitable location and cleaned, thoroughly dried in direct sun or indoor storage area, and re-inspected to remove any remaining material. Ensure all net sections and components are thoroughly dry for a minimum of 3 days. When possible, clean/dry nets and leads should be used between waters.

a. *Reporting Requirements- Unknown specimens and known aquatic invasive species should be transported in sealed containers for identification. Identification of invasive aquatic species should be reported to Maine Department of Inland Fisheries & Wildlife (MDIF&W contact: John Boland (207) 287-5261.)*
b. *Waters w/ Documented Infestations – Biological staff should be extra diligent when working on waters with known infestations to prevent the further spread of invasives. In this case, nets should be cleaned, soaked in salt brine (3%) overnight to destroy freshwater aquatic organisms, rinsed, and dried in sunlight between uses.*

IV. Procedures to minimize the spread of aquatic pathogens

a. *Equipment - Field equipment that comes in constant contact with stream or lake water (i.e. waders, nets, seines, gloves, shocker wand and tail, buckets, measuring boards, etc.) should be cleaned & disinfected before use between waters. Disinfection for most equipment is accomplished with a 2oz. Nolvasan/gallon water solution in the large trashcan. Equipment should be allowed to set in solution for 10 minutes then rinsed thoroughly. Equipment should be sprayed with a hand-pump style sprayer and allowed to set during transit to the new water. Delicate equipment such as electronic scales, conductivity meters, thermometers, etc., should be sprayed with alcohol and allowed to air dry.*
b. *Dip nets, trapnets and leads – are too large to be soaked and unlikely to get reasonable disinfection with a spray system. After seasonal use, trapnets should be transported to the regional headquarters, cleaned, thoroughly dried in direct sun or indoor area, and re-inspected to remove any remaining material. Ensure all net sections and components are thoroughly dry for a minimum of 3 days. When possible, clean/dry nets and leads should be used between waters.*

c. *Reporting Requirements - Fish encountered with lesions of reportable pathogens, or unknown pathogens should be preserved in 10% buffered formalin for storage or sent for immediate necropsy to the MDIF&W Fish Health Laboratory. Fish with obvious signs of clinical disease should be disposed of on land, rather than returned to the water to spread the pathogen.*

d. *Waters with Documented Pathogens – Biological staff should be extra diligent with disinfection procedures when working on waters with known pathogen issues to prevent the further spread of the organisms.*

Questions regarding proper cleaning and/or disinfection of field equipment should be addressed with the equipment's manufacturer.

Appendix B

Stormwater Management Design Commitments

Stormwater Temperature Mitigation
I-395 – Route 9
Stormwater Thermal Impact Assessment
Stephen Tibbetts, PE
MaineDOT

The proposed I-395/Route 9 project would require that the Maine Department of Transportation adhere to the General Standards of Chapter 500 of the Maine Stormwater Law. This is a proposed new alignment and under this law and the Memorandum of Agreement with Maine Department of Environmental Protection, MaineDOT would be required to "meet the General Standards to the extent practicable as determined through consultation with an agreement by DEP." Under the Chapter 500 General Standards for a linear project, MaineDOT would be required to treat 75% of the linear portion of the I-395 impervious area and 50% of the developed area that is impervious or landscaped for water quality.

Under Maine's Stormwater Law, the General Standards require that a project's stormwater management system must include treatment measures that would mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts.

For those sections of the proposed alignment that discharge into streams, Best Management Practice (BMP) design would focus on those systems that provide the greatest thermal buffering. Recent research at the University of New Hampshire Stormwater Center has shown that "systems that provide treatment by infiltration and filtration can moderate runoff temperatures by thermal exchange with cool subsurface materials. Stormwater BMPs that incorporate filtration appear to be exceptionally effective for mitigation of temperature. The degree of exchange is largely a function of the hydraulic loading rate. The physical dimensions of treatment cells can also affect the temperature of systems. Deeper systems have greater capability to buffer temperatures, and systems with a large subsurface footprint appear to have the greatest ability to mitigate runoff temperatures. These systems will be able to buffer the warm summer runoff, as well as the cool winter runoff, yielding effluent temperatures near the average groundwater temperature."[1]

1. "Examination of Thermal Impacts From Stormwater Best Management Practices", University of New Hampshire Stormwater Center, January 2011.

Federal Highway Administration

Mark Hasselmann

Qualifications:

- B.S. Environmental Science, Eastern Connecticut State University, 1984
- 20 years experience in procedural and technical guidance to assure compliance of the environmental analysis with federal requirements

Responsibilities:

Procedural guidance and document review

Cheryl Martin

Qualifications:

- B.S. Civil Engineering, University of Maine, 1985
- 26 years experience in transportation project development, including 15 years in procedural and technical guidance to assure compliance of the environmental analysis with federal requirements

Responsibilities:

Procedural guidance and document review

Peter Kleskovic, PE

Qualifications:

- B.S. Civil Engineering, Newark College of Engineering, 1974
- M.S. Civil Engineering, New Jersey Institute of Technology, 1977
- 30 years experience in transportation project development

Responsibilities:

Procedural guidance and document review

Gerald Varney, PE

Qualifications:

- B.S. Civil Engineering, West Virginia University, 1993
- M.S. Civil Engineering, West Virginia University, 1995
- 11 years experience in highway design and engineering

Responsibilities:

Procedural guidance and document review

Cassandra Chase

Qualifications:

- B.S. Civil Engineering, University of Maine, 2010

Responsibilities:

Procedural guidance and document review

Maine Department of Transportation

Russell D. Charette, P.E.

Qualifications:

- A.S. Civil Engineering Technology, University of Maine, 1974
- B.S. Civil Engineering, University of Maine, 1977
- M.B.A. University Of Southern Maine, 1987
- 34 year's experience in multi-modal transportation planning, design and development.

Responsibilities:

Project Management

Richard Bostwick, PWS

Qualifications:

- B.Sc. Biology, Mount Allison University, 1978
- 28 years experience identifying natural resources and assessing impacts from transportation projects

Responsibilities:

Natural environment analysis

Raymond Faucher, PE

Qualifications:

- A.S. Civil Engineering, University of Maine, 1970
- 35 years experience in planning and design of transportation projects

Responsibilities:

Procedural oversight and guidance

Eric Ham

Qualifications:

- University of Maine at Orono, BS in Biology, 2006
- 4 years of experience with environmental field assessments

Responsibilities:

Endangered Species Act Review and Compliance

Edward W. Hanscom

Qualifications:

- B.S. Civil Engineering, University of Maine, 1977
- M.S. Civil Engineering, Purdue University, 1979
- 32 year's experience in transportation planning and traffic engineering

Responsibilities:

Transportation review

Nathan Howard

Qualifications:

- Bachelor of Fine Arts (BFA) in Creative Writing, Environmental Planning, and Geography, University of Maine at Farmington, 2000
- Master of Public Administration (MPA), University of Maine, 2008
- 11 years experience in transportation planning and air quality and noise analysis

Responsibilities:

Air and noise analysis review

Judith Lindsey

Qualifications:

- B.S. Environmental Planning, Unity College, 1979
- 27 years experience in compliance with NEPA regulations, policies, and documentation requirements; community impact assessment; and social impact assessment methodologies and analysis

Responsibilities:

Study manager document review

Michael Morgan

Qualifications:

- AS Civil Engineering, University of Maine, Orono, Maine,1970
- 42 years of experience in transportation analysis

Responsibilities:

Traffic analysis and forecasting

Dan Tierny

Qualifications:

- 8 years experience in natural resource review and GIS analysis.
- BS in Wildlife Ecology, University of Maine at Orono, 1999
- MS in Biodiversity, Conservation, and Policy, State University of New York at Albany, 2001.

Responsibilities:

Natural resource (vernal pools , stream and wetland review) survey and identification.

Deane C. Van Dusen

Qualifications:

- A.S. Nursery Management, Stockton School of Agriculture, 1977
- B.S. Plant and Soils Science, University of Massachusetts, 1979
- M.S. Landscape Architecture, University of Massachussetts, 1981
- 25 years experience in landscape design and field studies, including wetland delineation, threatened and Endangered species surveys, wildlife and transportation studies, and wetlands mitigation

Responsibilities:

Mitigation

Cooperating Agencies

U.S. Environmental Protection Agency

Mark Kern

Qualifications:

- B. A. Philosophy, Rider University, 1975
- M.S. Environmental Science, Yale University, 1984
- At EPA for 25 years. Over 20 years in the wetlands program.

Responsibilities:

Wetlands and wildlife review.

U.S. Fish & Wildlife Service

Wende S. Mahaney

Qualifications:

- M.S. Wildlife Science, New Mexico State University, 1987
- 23 years experience in wildlife science

Responsibilities:

Endangered Species Act, NEPA reviews, CWA permitting

U.S. Army Corps of Engineers

Jay Clement

Qualifications:

- B.A. Zoology, The University of Maine, 1982
- 28 years experience in Corps permitting and enforcement

Responsibilities:

Administering Corps permit program within the State of Maine, Senior Project Manager for Corps Maine Project Office

Maine Historic Preservation Commission

Leon Crammer

Qualifications:

- M.A. Historic Archaeology, The University of Maine, 1988
- 20 years experience in archeological resources

Responsibilities:

Archaeological resources

Michael Johnson

Qualifications:

- M.S. Historic Preservation, University of Vermont, 2002
- 10 years experience in Historic Preservation

Responsibilities:

Historic resources

John P. Mosher

Qualifications:

- MA New England Studies (historic archaeology focus), University of Southern Maine 1991
- 12 years experience with Maine Historic Preservation as archaeologist

Responsibilities:

Archaeological resources

Arthur Spiess

Qualifications:

- PhD in Anthropology (archaeology focus), Harvard University, 1978.
- 33 years as SHPO archaeologist, Maine Historic Preservation Commission.

Responsibilities:

Archaeological resources

Gannett Fleming, Inc.

William M. Plumpton, CEP

Qualifications:

- B.S. Environmental Resource Management, The Pennsylvania State University, 1984
- 25 years experience in environmental impact assessment and NEPA compliance

Responsibilities:

Study manager

Scott W. Duncanson, AICP

Qualifications:

- B.A. Political Science, University of New Hampshire, 1984
- M.U.A. Urban Affairs/Planning, Boston University, 1991
- 23 years experience in environmental planning, land use and socioeconomics, transportation planning, and NEPA compliance

Responsibilities:

Social environmental studies

Katherine E. Sharpe

Qualifications:

- B.A. English, Minor in Environmental Economics, Minor in Business, The Pennsylvania State University, 1999
- M.P.S. Environmental Management, Cornell University, 2003
- 9 years experience in environmental planning, socioeconomic analysis, and NEPA compliance

Responsibilities:

Social environmental studies

Craig Shirk, AICP

Qualifications:

- B.A. Geoenvironmental Studies, Shippensburg University, 1989
- M.S. Environmental Science, State University of New York, College of Environmental Science and Forestry, 1994
- 17 years experience in environmental planning, transportation planning, and NEPA compliance

Responsibilities:

Natural environment studies

Danielle Stemrich

Qualifications:

- B.A. Environmental Studies, Kings College, 2006
- M.S. Geoenvironmental Studies, Shippensburg University, 2008
- 4 years experience in NEPA compliance

Responsibilities:

Document preparation

Harvey S. Knauer, PE, PLS

Qualifications:

- B.S. Civil Engineering, University of Miami, 1967
- M.C.E. Villanova University, 1974
- 39 years engineering and environmental experience

Responsibilities:

Air quality and noise

Ahmed El-Aassar, EI

Qualifications:

- B.Sc., Civil Engineering, Cairo University, Egypt, 1995
- M.Sc., Water Resources Management, The University of Birmingham, United Kingdom, 1997
- M.Sc., Environmental Engineering, The University of Central Florida, 2002
- Ph.D., Environmental Engineering (noise and air pollution related), The University of Central Florida, 2006
- 13 years experience in noise and air quality analysis

Responsibilities:

Air quality and noise

Daniel W. Farber

Qualifications:

- A.S. Electrical and Electronics Technology, The Pennsylvania State University, 1969
- 33 years experience in noise analysis

Responsibilities:

Noise

Debra L. Plumpton, PG

Qualifications:

- B.S. Geology, Slippery Rock State College, 1978
- M.S. Geological Engineering, University of Missouri-Rolla, 1980
- 28 years experience in geology and groundwater analysis

Responsibilities:

Geology and groundwater

David A. Hamlet, PE

Qualifications:

- B.S. Civil Engineering, Rensselaer Polytechnic Institute, 1992
- M.E. Engineering Science, The Pennsylvania State University, 1995
- 16 years experience in preliminary and final highway design and construction services

Responsibilities:

Preliminary design

Nathaniel S. Kirchner, PE

Qualifications:

- B.S. Civil Engineering, The Pennsylvania State University, 1999
- Open Plan Basics – Project Management, Productivity Point, 2001
- 10 years experience in preliminary and final highway design and construction services

Responsibilities:

Preliminary design

Aaron K. Holt

Qualifications:

- A.S. Specialized Technology, The Art Institute of Philadelphia, 2002
- 10 years experience in graphic design

Responsibilities:

Graphic design and document layout

Russell A. Spangler

Qualifications:

- B.A. Communications and Media Art, Neumann University, 2010
- M.S. Publishing, Pace University, 2012
- 5 years experience in marketing, publication design and editing

Responsibilities:

Graphic Design, document layout and editing

A.K. Environmental

Patricia Riley

Qualifications:

- B.S. Biology/Environmental Science, East Stroudsburg University, 1983
- M.S. Ecology, Rutgers University, 1986
- 24 years experience with environmental studies and permits

Responsibilities:

Right-of-way impact analysis

Doug Avelino

Qualifications:

- A.A.S. Forest Science, Pennsylvania State University, 2006
- 6 years experience with environmental studies

Responsibilities:

Right-of-way data analysis

Julie Cormier

Qualifications:

- B.F.A., Printmaking, University of Iowa, 1977
- Associate of Science, Health Information Technology, University of Maine, 1992
- 7 years experience with real estate research

Responsibilities:

Right-of-way field data collection

TechEdit Services

Constance G. Burt

Qualifications:

- B.S. Social Work, Florida State University, 1972
- 30 years experience as a technical editor

Responsibilities:

Technical editing

Chapter 6
Distribution List

This EIS was distributed to federal, state, and local agencies with jurisdiction by law or special expertise and to agencies, tribes, and local entities that may be interested in the study.

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Maine Geological Survey
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Chapter 7
References

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Index