Highlights

from Maine's Long-Range Transportation Plan

Connecting Maine

PLANNING OUR TRANSPORTATION FUTURE

Contents

Governor John E. Baldacci

JOHN ELIAS BALDACCI
GOVERNOR

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04333-0001

December 2007

A Message from Governor Baldacci:

It is my pleasure to present MaineDOT's statewide long-range transportation plan, *Connecting Maine*. This transportation plan supports my objectives for the 21st Century Maine economy—an economy that will depend on education, research and development, reliable and affordable energy, and an efficient and integrated transportation system.

Connecting Maine promises to deliver such a transportation system should the resources materialize in the years to come. I have adopted this plan as one of the cornerstones of our state's economic future. As our economy grows and diversifies, transportation systems will become more critical than ever. Our natural resource-based industries will require multimodal systems to access raw materials and get their products to market. Efficient and competitive shipping options like freight rail will reduce greenhouse gas emissions, make our industries more globally competitive, and preserve our highways and bridges by moving freight off the roads and onto rail.

Our bridges and our highways will continue to be the workhorse of our transportation economy. As our transportation system ages, and the demands on it grow, the strain on our resources will grow as well. Our transportation system serves not only the Maine economy, but the national and regional economies as well. Maine cannot meet this financial challenge alone—the federal government must step up and provide more resources to fund a truly national transportation system that will make our country more globally competitive. We need a national transportation policy for the 21st Century.

The foundation for such a policy must be a national dialogue regarding a change in how we fund transportation in the U.S. We must begin the process of kicking our fossil fuel dependency. It must be a national imperative in the next federal transportation funding act to reduce our reliance on foreign oil—an imperative that will ensure our future security and independence, and lead to the sustainability of the planet and our communities by reducing greenhouse gas emissions. The transportation sector is our state's and the nation's #1 contributor to greenhouse gas emissions. I will work with my fellow Governors to press Congress and the next Administration to make transportation a national economic and environmental priority.

Connecting Maine lays out a strategic plan for current and future policy-makers to follow. We must begin to plan and implement the transportation infrastructure of the future today. Air service will become increasingly important in our New Age economy, transit systems will become essential to meet the needs of our growing elderly population, passenger rail will be sorely needed in the years to come to control congestion in our more urban areas, and failure to invest in our critical highway and bridge infrastructure will become increasingly apparent as it deteriorates.

They say a journey of a thousand miles begins with the first step. *Connecting Maine* is that step in the right direction. We will all have to work together to achieve the ambitious but essential goals outlined within.

John E. Baldacci, Governor

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MaineDOT Commissioner David Cole

December, 2007

A Message from MaineDOT Commissioner David Cole

When Governor Baldacci appointed me Commissioner of Transportation in 2003, he made it clear that I must not only "think out of the box", but also think *regionally*. I think of transportation as being one of three legs on a stool — the other legs being the economy and environment. In order to meet the needs of the economy and maintain quality communities, we must achieve the appropriate balance. It is therefore critical that transportation, environmental, and economic development objectives are developed in relation to one another. If only one or two of the legs reach the desired results, Maine's "quality of place", and hence the quality of life of its citizens, will suffer. All of these elements are developed at the regional level through Maine's 11 Regional Councils.

At an unprecedented level of participation, MaineDOT worked with the Regional Councils over the last three years to conduct transportation, land-use and economic development planning at the regional level. The culmination of this work, which included significant public participation, led to development of 38 Corridors of Regional Economic Significance for Transportation (CRESTs), and transportation, land-use and economic objectives of each CREST. MaineDOT also asked the Regional Councils to identify and prioritize transportation-related policy issues, planning study needs, and the capital investments that would be required to meet their CREST's objectives. The strategic investments have been incorporated into the needs highlighted in this plan.

The Governor also charged me to ensure that MaineDOT and our transportation system as a whole is managed and operated as efficiently as possible. Before we receive new resources, we must to demonstrate to him and the Legislature that we are maximizing the benefits from every taxpayer dollar we already receive. For example, MaineDOT continues to implement our Maintenance and Operations Unit Review. That initiative achieved a number of ongoing efficiencies. Results include the elimination of 45 FTE vacant positions over the last two budgets and the retiring of 30 trucks from our heavy fleet by readjusting plow routes, thereby saving the costs of vehicle maintenance, fuel and replacement costs. MaineDOT is also working with our transportation partners on evaluating ways we can work together to achieve more system savings and efficiencies in the future. Those efficiencies can yield savings that can be invested in the system.

We are also working with our engineering community, the University of Maine, The Maine Composites Alliance, and others on research and development of innovations that can boost our local economy and lessen our reliance on materials like steel, which are becoming increasingly expensive due to global economic forces. We must also think out of the box and rely on innovation to meet some of our future transportation needs.

Our ability to maintain and improve the transportation system will depend on long-term funding, and *Connecting Maine*, our long-range strategic plan, discusses the level of resources needed to maintain and deliver the transportation system that we need to grow our economy and preserve our quality of life. *Connecting Maine*, which includes the goals and objectives set forth in LD 1790, will guide our future decision-making to the year 2030. We will measure our progress through a biennial *Report Card* to the Governor, the Legislature, and the public, so we can all work together to make Maine a truly great place to live, work and play.

Sincerely,

David Cole
Commissioner, MaineDOT

Introduction

"Connecting Maine" is the state's integrated, long-range, multimodal transportation plan through the year 2030. It identifies transportation issues, as well as social, land-use and economic needs, and it considers future challenges and opportunities unique to Maine. It establishes a framework of goals, objectives, and performance-based strategies for meeting future needs and addressing anticipated challenges. *Connecting Maine* outlines the issues, needs, and policies required to achieve Maine's economic and social goals as they relate to transportation—among them: a large and aging infrastructure; skyrocketing construction costs matched by increasing demand for transportation and related services; a shifting and aging population; changing economic realities in Maine, including an ever-increasing shift to a service economy; and, not least, flat-to-declining revenue sources for transportation.

This plan defines strategies for decision-making that will recognize economic opportunities and quality-of-life benefits for Maine resulting from strategic transportation investments. In preparing this plan, MaineDOT worked to understand and portray the current and future challenges and opportunities facing Maine's transportation system through the year 2030. Economists and transportation experts from Maine and New England shared their thoughts and opinions on Maine's economic growth, its demographic changes and other future driving forces, to assist in the development of this long-range plan.

A key and unique feature of this plan was the participation of the state's 11 Regional Councils (RCs), each of which produced a Regional Transportation Assessment (RTA) that identified Corridors of Regional Economic Significance for Transportation (CRESTs) and their associated transportation, land-use, and economic development objectives; and most importantly, priority investment needs for each of the CRESTs.

With all of these viewpoints in hand, MaineDOT and regional planners laid out this long-range plan. MaineDOT also undertook an unprecedented public-consultation process that involved more than 20 meetings throughout the state coordinated by the Regional Councils, prior to publishing the initial draft version of *Connecting Maine*.

Following this collaboration, MaineDOT staff identified five strategic goals:

I. *Ensure a safe and secure transportation system*
II. *Ensure the sustainability of Maine's transportation system*
III. *Promote economic viability and competitiveness*
IV. *Enhance quality of life by developing and implementing transportation programs that enhance communities and Maine's natural environment*
V. *Enhance public awareness and participation*

These goals are the lenses through which MaineDOT sees Maine's transportation future, and the means by which the department will develop its strategic investment initiatives and prioritize spending.

The implementation of this plan will include publishing a biennial "Report Card" and distributing it in conjunction with Maine's biennial transportation budget and MaineDOT's *Biennial Capital Work Plan*. The Report Card will measure how the transportation system is doing in comparison to the performance-based goals and objectives identified in *Connecting Maine*.


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Changing Times, Changing Context, and New Opportunities

Transportation and the Economy

High-quality, efficient transportation infrastructure is critical to keeping Maine competitive in the new, global economy. Investments in transportation infrastructure bring lasting and substantial economic benefits by ensuring the ability to grow the economy, and to create and retain jobs, while maintaining a good quality of life. For Maine to develop and maintain a competitive edge in a rapidly expanding global economy and to further enhance quality of life, MaineDOT must provide Maine citizens with the information they need to make important transportation decisions—specifically, the trends, needs, constraints, and potential for opportunity.

Challenges of an Aging Infrastructure

While many infrastructure investments have been made over the last decade, the aging of the transportation network, changes in global trade, technology, rising construction costs and increasing traffic are placing increasing stress on the transportation system. *Connecting Maine* is designed to directly address the fact that, within this changing context, the state of Maine is losing ground in the struggle to maintain and improve the transportation system, which is vital to its economic and social well-being. Without changes in the way we currently fund transportation, our quality of life—the essence of what makes Maine so desirable as a place to live—is threatened.

At current and projected funding levels, transportation system deterioration and degradation are occurring and will continue to do so. The system's degradation will add substantially to the cost of future improvements, as well as add to the cost of goods and services produced or consumed in Maine. It will also lead to an increase in the time spent in automobiles, create an unfavorable climate for economic development and negatively affect the natural environment. In order to keep pace with economic needs, substantially more transportation resources will need to be identified, and new and renewed investments will need to be made. Unless increased funding is found to support vital transportation system needs, our ability to meet emerging opportunities and economic development efforts will be significantly negatively impacted.

Greenhouse Gases and Global Warming

The effects of greenhouse gas emissions are increasingly becoming an issue, nationally and in Maine. Much of Maine's culture and allure is related to its climate and connection to the sea. The transportation sector represents the largest source of greenhouse gas (GHG) emissions in Maine at about 28% of total GHG emissions. Under a business-as-usual scenario, GHG emissions will increase 48% from 1990 levels by the year 2020. By implementing long-range transportation actions such as slowing VMT growth, utilizing low-GHG fuel, and implementing tailpipe emission standards, GHG emissions

between 2010 and 2020 can be decreased by 28.8%. Long-range strategies will need to include increasing the availability of low-GHG travel choices, such as transit passenger rail, vanpools, walking and biking. Complementary policies will need to address land use and transit-based incentives to improve the attractiveness of these low-GHG travel choices. MaineDOT is engaged in many activities and programs aimed at reducing GHG, and anticipates that these efforts will need to be increased as the issue becomes more defined. Ambitious initiatives such as the *Maine Climate Action Plan's* goal to reduce greenhouse gas emissions to 1990 levels by 2010, and to 10% below those levels by 2020, will challenge MaineDOT's delivery of transportation improvements.

MaineDOT will act aggressively to facilitate moving freight from Maine's highways to rail and marine modes. This has clear and distinct benefits:

- Reduces greenhouse gas emissions and fuel consumption
- Decreases shipping costs and thus makes Maine's businesses more competitive
- Improves safety by removing trucks from Maine's roads
- Preserves Maine's highways and bridges from the vehicles that can do the most damage

MaineDOT estimates that the strategic investment in the highway and transit projects identified in this plan will reduce emissions of CO_2 by 26 to 32 thousand metric tons by 2020, and by 40 to 48 thousand metric tons by 2030.

Land Use, Transportation and Partnerships

MaineDOT must ensure that Maine's transportation system incorporates social, economic, land-use and environmental planning and policy; community planning and outreach; and expansion of multimodal services. Today's era of constrained resources will require new models for land-use planning that offer a low-cost, highly effective way to protect the transportation infrastructure throughout the state. To make that happen, MaineDOT must play a stronger role and become more involved in working with local communities, regional planners, governments and developers on land-use decisions to maintain the integrity and capacity of the transportation system.

Transportation facilities, like all land-use activities, affect the environment. Whether the environment is natural or man-made, cultural, social or economic, provision of transportation services often carries unintended effects that must be managed. MaineDOT's Quality Communities Initiative provides for community livability programs, a "context sensitive solutions" philosophy and environmental stewardship. Commitments to enhance, preserve, avoid, protect, minimize or mitigate the impact of transportation projects on historic, scenic and cultural resources; on wetland, fish, and wildlife ecosystems; and on air and water quality, will continue to be conducted.

It is with this expansive role, within a context of limited resources, that MaineDOT makes its strategic commitments, as spelled out in this plan, to support the fulfillment of the "statewide transportation vision" articulated in the department's strategic plan:

Changing Times, Changing Context, and New Opportunities

"To provide a transportation system that is safe, supports a healthy economy, promotes family and community connections, and protects and enhances Maine's natural and cultural environment."

Maine's transportation vision is largely rooted in the desire of its citizens to maintain village and urban centers, connect communities and transportation modes, improve transportation system performance for passengers and freight movement, and support Maine's economic vitality. More than a vision, this plan is a blueprint—a multi-layered performance-based strategy to guide MaineDOT in establishing and maintaining the transportation system called for by Maine's citizens.

Ongoing and Future Trends that Affect Transportation

Growth and Shifting Demand

Maine has a slow statewide population growth rate. While parts of southern Maine have experienced steady growth, this increase will probably not extend to northern Maine. Maine's coastal counties and communities, which have been growing rapidly, will very likely continue to do so in the future. These communities will increasingly deal with congestion issues, especially in the summer. A challenge for MaineDOT is that it must support programs that promote growth in the tourism sector, while ensuring that the improvements do not negatively affect the unique qualities that make Maine a great place in which to live, work and visit. The central counties, long reliant on manufacturing jobs, are increasingly shifting toward a service economy. Throughout the state, the loss of manufacturing jobs in rural areas has increased the number of commuters who must drive longer distances to their jobs. Even so, the central counties' economy remains highly reliant on freight facilities, because output in certain industrial sectors, including the paper industry, remains strong. More recently, an increased focus on this region's lakes and mountains is also attracting nature-based tourism. The rim counties, along Maine's northern and western borders are, and will remain, principally rural. They rely heavily on the natural resource-based economy, including tourism, which is likely to increase—and with it, competing demands on transportation.

Aging Population

Maine's median age is currently the highest in the country, and it is getting higher. Maine's future transportation system must adapt to the needs of our aging population, which will demand more travel choices, as older drivers seek alternatives to their cars. Urban residents will need expanded transit services and associated health-related infrastructure, such as pedestrian and bicycle trailways. Rural residents will require increased transportation services to service centers in order to shop, seek medical care and meet other needs. Transportation services may need to include more on-demand and even "door-to-door" services in order to meet special or unique needs of the elderly and disabled. A large number and diversity of specialized transportation programs across many agencies may create service inefficiencies such as duplication, underutilization, inconsistency, gaps in service, and customer inconvenience. Government agencies, human service providers, and transportation planners will need to improve program coordination to address these problems.

Safety will continue to be a dominant transportation theme for the elderly. Road signage

may have to be upgraded so it is more readable, and road designs may have to be modified to reflect the needs of older drivers.

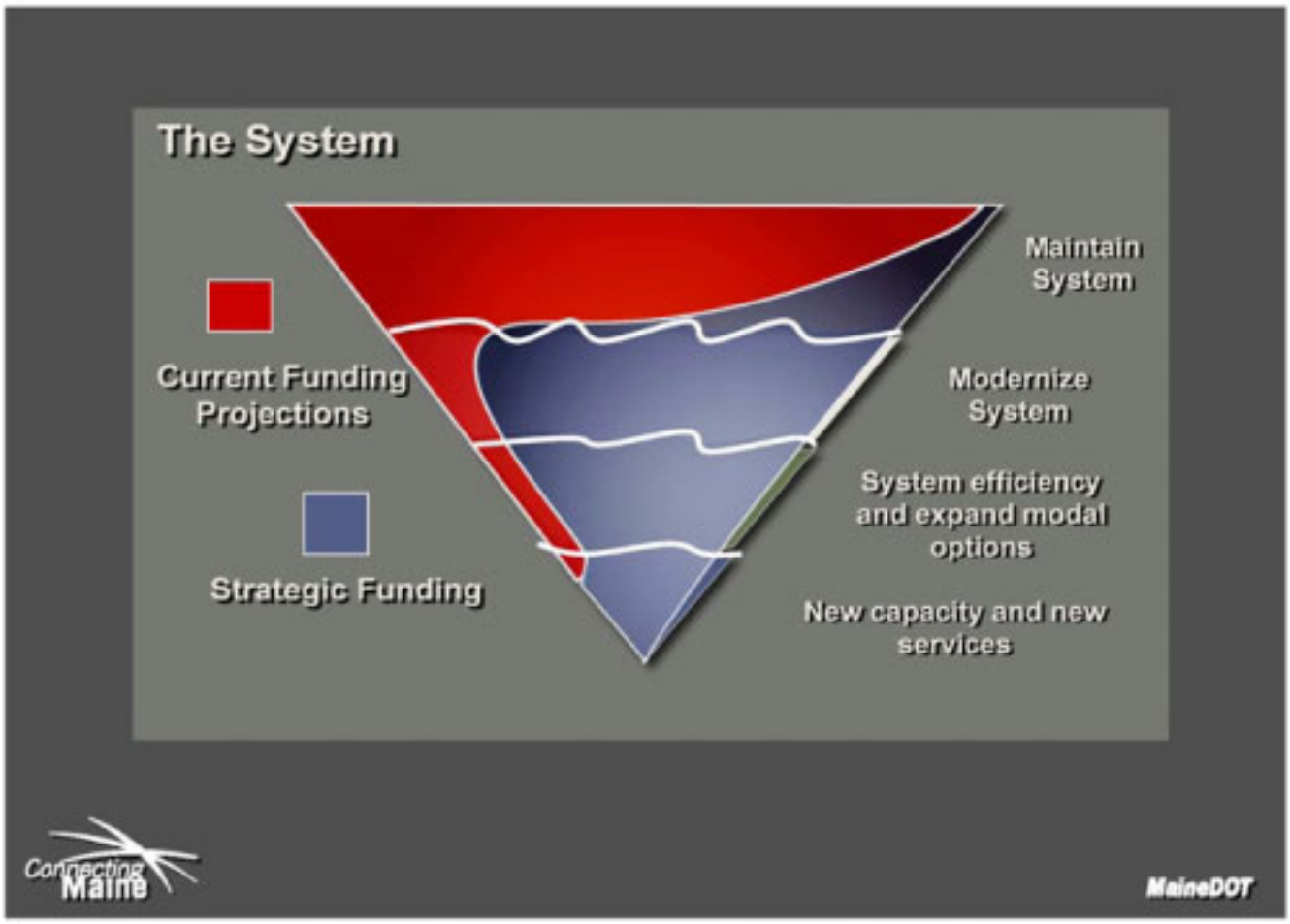
Changing Economies

Maine's natural resource-based industries, such as forest products, paper, fishing and agriculture, will continue to play a vital role in the state's economy, but in a more capital-intensive, less labor-intensive manner. Infrastructure investments will play an important role in supporting those industries and making them more competitive in the marketplace. The need to compete in the global marketplace must also be addressed. Though our state is well-positioned geographically in our emerging global trade corridor, Maine's potential economic opportunities and growth are dependent on transportation infrastructure to support trade opportunities.

Connecting Maine Initiatives

Current Funding vs. Strategic Funding Scenarios

MaineDOT will attempt to prioritize activities and investments that most effectively respond to future challenges, take advantage of future opportunities and, ultimately, achieve *Connecting Maine's* strategic goals. However, given current funding shortfalls, it will be increasingly challenging to fund activities that go beyond maintaining the system that is in place today. In fact, with the current funding scenario, MaineDOT will not be able to fully preserve and maintain Maine's current transportation infrastructure, nor will it be able to significantly implement the strategic investment initiatives necessary to achieve the broad future goals outlined in this plan. The following graphic depicts how MaineDOT's allocation of funding will attempt to balance preservation of the transportation system with the need to make strategic investments—under two funding scenarios. The first scenario is with the current level of transportation funding in Maine, and the second is with a level of funding that would make significant headway toward reaching the strategic goals in this plan.



Connecting Maine Initiatives

MaineDOT recognizes that completing the transportation improvements and system preservation measures necessary to support economic development and quality of life will require more funding than is projected under the given current funding paradigm. Without increased revenue from the state and federal levels, the financial gap between current funding and the amount needed to meet strategic needs will not be realized. In short, the likelihood is that without addressing the urgent need for new resources, no additional transportation system capacity or new initiatives will be forthcoming. For that reason, *Connecting Maine* relies on a strategic funding scenario, which assumes funding sufficient to maintain and improve the entire transportation network, enabling the state to fully fund the investment initiatives outlined in the following sections.

MaineDOT and its partners have identified broad strategic initiatives to guide investment over the next two decades. These initiatives are of great importance in prioritizing and funding the projects necessary to achieve Maine's strategic transportation goals and objectives.

Connecting Maine Initiatives

I. Highways Initiative

The Maine state highway system includes all public roads and related infrastructure in the state, excluding local roads. The system is a capital asset worth billions of dollars and an investment around which most of the commerce in Maine has developed. It will remain the most critical component of the transportation system well into the foreseeable future.

The following paragraphs define the level of investment required over the next 20 years to meet MaineDOT's performance-based strategic investment plan. (For a complete summary, see the table, "Summary of Initiatives and Goals: 10-Year Installment and 20-Year Estimate" at the end of this section.)

The following financial estimates are based on the 20-year horizon.

Safe Highways: $220 Million

Traveler and worker safety is at the heart of all MaineDOT activities and is included in all the following initiatives. In addition, MaineDOT proposes additional work directly focused on:

- Reducing fatality and injury rates
- Reducing the economic impact of crashes
- Reducing large animal/vehicle collisions
- Reducing speed-related crashes
- Reducing lane-departure crashes, particularly on rural two-lane roads

Interstate Improvement and Modernization: $1.0 Billion

The Interstate Highway System in Maine is the transportation system's backbone, connecting Maine to the U.S. and Canada. With portions of this system ranging in age from 20 to 50 years old, much of the system is approaching or already beyond its design life. The mainline and ramps were not designed to meet today's traffic volumes and are becoming more congested, thereby affecting safety and mobility, and aging pavement, bridges and drainage structures need rehabilitation or replacement. Newer safety standards also require the piers and abutments of bridges crossing over the Interstate to be placed further from the travel lanes, necessitating construction of bridges with longer spans. This strategic initiative focuses on:

- Keeping Interstate bridges in good, serviceable condition
- Ensuring a free flow of traffic on the mainline and ramps
- Keeping pavement ride, (i.e., smoothness) in "good" or better condition

Connecting Maine Initiatives

Non-Interstate Arterial Highway Modernization - $682 Million

To the degree to which the Interstate is the transportation system's backbone, the non-Interstate portion of Maine's arterial highway network is the skeleton that supports Maine commerce and connects Maine's regions to one another. Nearly all commerce interacts with or is dependent upon this network of over 2,200 highway miles. Of those, 195 miles are structurally and geometrically inadequate, resulting in reduced efficiency and safety. This strategic initiative focuses on:

- Modernizing half of the 195 miles of deficient arterial highways by 2020
- Modernizing the remainder by 2030
- Preserving these and past investments
- Developing and implementing a corridor-preservation program that reduces the number of existing and new access points on rural arterials
- Sequencing projects in accordance with the priorities established by Regional Councils

Secondary Highway Modernization: $1.85 Billion

Collector highways link local roads to arterial highways and provide important shipping routes across Maine. MaineDOT seasonally "posts" approximately 48% (1,850 miles) of a total 3,800 miles of collector highways, thereby restricting passage for trucks weighing more than 23,000 pounds. The postings are necessary because many highways are structurally and geometrically inadequate to support heavy loads during the spring thaw. This strategic initiative focuses on:

- Modernizing 925 miles of collector highways by 2020
- Modernizing the remaining 925 miles by 2030
- Preserving these and past investments
- Reducing the number of posted roads on key economic corridors by 400 miles by 2030
- Sequencing projects in accordance with the priorities established by Regional Councils

Highway Paving: $1.62 Billion

Maine has invested hundreds of millions of dollars in modernizing its highway network. As with any investment, it is important to protect that investment—in this case with an aggressive pavement-maintenance program. MaineDOT is committed to maintaining pavement on modernized segments of highway to provide not only a quality ride experience, but also to preserve the investment on those segments that have been properly built. On segments of highways that are geometrically or structurally inadequate, a maintenance-paving cycle will be employed to keep these roads in serviceable condition until they can be improved.

Connecting Maine Initiatives

Congestion Management: $1.0 Billion

Traffic congestion is a growing issue nationwide and a drag on the economy. Congestion costs Maine citizens approximately $0.5 billion per year in lost time and productivity. Congestion also adversely affects air quality and the environment. This strategic initiative focuses on:

- Reducing congestion to 30 hours per 10,000 vehicle miles traveled (VMT) by 2030
- Reducing congestion-related delays by 9.3% by 2030
- Increasing modal choices
- Expanding highway capacity
- Sequencing projects in accordance with the priorities established by Regional Councils

II. Bridges Initiative

Bridges: $ 2.6 Billion.

MaineDOT manages a network of 2,967 bridges. Currently, 280 of these bridges are at risk of being posted to lower vehicle weights or closed within 10 years, unless they receive significant improvements or are replaced. At the current replacement rate of only 14 bridges per year, bridge life expectancy will have to increase to 185 years, which is not technically feasible. Therefore MaineDOT's Bridges Initiative is intended to:

- Maintain a safe and efficient bridge network
- Achieve a replacement cycle of 30 to 40 bridges per year
- Extend the average bridge service life to about 80 years, which is a technically feasible service lifespan
- Improve or replace all key functionally deficient bridges that are hindering the free flow of goods, services or people by 2030

III. Multimodal Connections Initiative

Maine's passenger transportation system consists of a network of passenger railroads, fixed-route and on-demand transit (buses), bicycle and pedestrian trails, airports and ferries. The demand for passenger transportation of all types is growing in all geographic areas of the state. Additional benefits beyond providing direct service to the public include congestion reduction and air-quality improvement.

Connecting Maine Initiatives

Intercity Passenger and Commuter Rail: $139 Million

Current passenger rail services in Maine consist of the Amtrak *Downeaster* operating between Portland and Boston, and excursion service such as the one now running from Brunswick to Rockland. Passenger rail is one of several important tools in managing traffic in the ever-growing I-95 and I-295 corridors of southern Maine. This initiative assumes reliance on funds from the Federal Transit Administration's "New Starts" Program. Alternative sources of capital could accelerate the delivery of certain passenger rail service. Ongoing efforts continue to identify those resources. The federal New Starts initiative includes the following objectives:

- Extend passenger rail service from Portland to Yarmouth.
- Extend passenger rail service to Brunswick.
- Extend passenger rail service to Lewiston/Auburn.
- Evaluate extending passenger rail service from Auburn to Montréal

Transit: $350 Million

Maine currently provides 18 fixed-route transit (bus) systems, 22 public and private vanpools, and 53 park-and-ride lots offering 2,000 parking spaces, serving over 3 million passengers annually. As congestion and fuel prices increase, demand for public transportation is also increasing. Passenger transit initiatives will focus on:

- Expanding capacity of existing intra-city transit systems to serve viable congested areas, and increasing ridership by 10%
- Improving connectivity of existing intermodal facilities, developing new connections to new facilities and constructing five new intermodal facilities by 2030
- Continued marketing and community support efforts to facilitate 300 cruise ship visits annually statewide by 2030
- Developing new intercity bus service and expanding overall bus service by 25%
- Expanding the *GO*Maine rideshare service by 25%
- Implementing 24 new transit-needs studies by 2030
- Increasing the number of park-and-ride lots by 20%
- Reducing seasonal congestion in Acadia National Park by increasing transit service 15% by 2015
- Developing and operating transit routes in the Midcoast region by implementing two new fixed routes by 2015
- Developing new passenger intermodal facilities in Auburn, Augusta, Bangor, Ellsworth and Trenton
- Replacing buses at a rate sufficient to assure that 50% of the statewide transit fleet retains more than 50% of its useful life
- Continuing to transition transit fleets to clean fuel to improve air quality, by increasing the number of clean-fueled buses by 30% by 2015
- Replacing aging Maine State Ferry Service vessels at a rate sufficient to meet U.S. Coast Guard requirements

Connecting Maine Initiatives

Intermodal Freight System and Ports: $120 Million

In the fall of 2007, Governor Baldacci hosted several mini-rail summits with the State's regional railroads and key industries in their service areas. These summits have contributed to shaping MaineDOT's Integrated Freight Plan which has been used as the basis for *Connecting Maine's* Intermodal Freight System and Ports Initiative. These Summits helped bring to light the need to seek both public and private investments that will facilitate connections between our critical highway, rail and marine port systems. The Maine economy's role in the expansion of the global economy, and the competitiveness of our industries will depend on these innovations.
MaineDOT is increasingly focused on improving freight flows within and through the state, and working to create and implement freight solutions that achieve results. In order to meet freight movement needs, the transportation system must be multimodal (multiple modes) and have good intermodal (mode-to-mode) connections. Intermodal freight transportation involves moving freight between points of origin and destinations using two or more modes, (e.g., rail, water, air and highway.) To work effectively and "seamlessly," terminal facilities, terminal flows and land-side access must be adequate to accommodate expected demands. Success in meeting these demands depends on system-wide performance rather than on the performance of any individual mode, placing emphasis on the efficiency and reliability of the entire transportation system.

Maine's three principal seaports of Portland, Searsport and Eastport provide benefit to Maine's economy. The Intermodal Freight Systems and Ports Initiative will address existing domestic needs and emerging global opportunities. The Port of Eastport lacks a rail connection from the port, so a study will be conducted by 2010/2011 to determine the freight benefits of installing new railroad track and a bridge. The Port of Portland also suffers from impediments to the movement of rail freight. By 2010, MaineDOT will evaluate rebuilding the International Marine Terminal in order to attract additional container business. Finally, the Port of Searsport has the potential to be the state's most important freight link to global shipping and trade. With water depths

IRAP - MaineDOT's Industrial Rail Access Program has proven to be among our most successful public-private partnerships. The Governor and the Legislature have historically funded this program with General Fund bonds. Each public dollar invested has leveraged a private dollar toward creating access to the rail system for shippers. Increased funding over time can increase access, making our industries more competitive, and preserving our highway and bridge systems.

FRIP - MaineDOT's new Freight Rail Interchange Program promises to bring the revival of freight rail service to a new level. Page 27 of this report discusses one FRIP project in detail. This program focuses on improving freight rail infrastructure at points where railroad systems intersect, to improve efficiency and, thereby, competitiveness.

capable of supporting some of the largest ships afloat, the port has been only marginally developed. Expansion activities at the port will provide greater services for traditional Maine commerce and open new trade opportunities that will benefit Maine's economic future. MaineDOT will continue its collaborative effort with all stakeholders to allow for dual use (land preservation and port facility) of this valued Maine resource.
MaineDOT's detailed Integrated Freight Plan will be publishing in January 2008.

Acquisition of Key Rail Corridors: $64 Million

Rail corridors in Maine have historically been transportation corridors owned and maintained by the private sector. However, over the past few decades, some of these corridors have become at risk of abandonment. Many of these corridors would be almost impossible to reestablish today because they travel through developed or environmentally sensitive areas. To preserve and utilize rights-of-way for future transportation needs, MaineDOT has already acquired more than 323 miles of rail corridors. MaineDOT's future rail corridor acquisition and maintenance initiative will focus on:

- Maintaining and improving facilities that allow public use of the rail corridors already obtained by MaineDOT
- Acquiring and maintaining additional sections of rail corridors at risk of abandonment, as they become available

IV. "Quality of Place" Initiative

Quality Communities: $140 Million

A number of current initiatives including Community Investment Sharing, Community Livability, Recreational Access, and Community Gateways assist Maine communities in enhancing transportation corridors and community landscapes. To provide structure and coordination to these efforts, MaineDOT worked closely with the state's Regional Councils and the Economic Development Districts to develop *Corridors of Regional and Economic Significance for Transportation* (CRESTs). Working collaboratively with MaineDOT, the organizations identified the transportation, land-use, and economic development objectives for each corridor. They also identified and prioritized each region's policy issues, planning activities, and capital needs, with respect to MaineDOT's goals.

Building on enhanced project-scoping techniques, MaineDOT will financially support projects that apply innovative and effective measures towards the creation and maintenance of community enhancements near highways or other transportation facilities. Eligible projects include landscaping, visual access, public space improvement, and streetscape improvements. MaineDOT will also expand support for downtown redevelopment efforts through investments in transportation-related infrastructure, such as the refurbishment of historic train stations.

MaineDOT is also moving beyond the typical "public involvement" approach for transportation improvements to a more multi-disciplinary *"context sensitive solutions"* approach. Context sensitive solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic, habitat, and environmental resources, while maintaining safety and mobility. CSS is an

approach that considers the total context within which a transportation improvement project will (or does) exist. It fosters new collaborative partnerships with stakeholder groups by combining holistic, collaborative, and interdisciplinary philosophies for the planning, design, construction, maintenance and operation of transportation infrastructure.

In an effort to promote more integration between land use, and transportation planning and decision-making, MaineDOT, in collaboration with the Maine State Planning Office, is modernizing Maine's Sensible Transportation Policy Act rules. One purpose of this modernization effort is to promote community and multiple-community transportation planning synergy with state and regional objectives, in order to achieve efficiencies, reduce or better manage public costs, and further enhance municipalities' efforts to make their communities livable. The rules are in draft form and will undergo a *substantive rule* adoption process in the 2008 legislative session before they become effective. A community benefit to adopting complementary transportation and land-use strategies is state assistance with implementation efforts.

Healthy Trails: $80 Million

MaineDOT strives to integrate walking and bicycling facilities into Maine's transportation system. Providing safe access for bicyclists and pedestrians using the transportation system, and improving village environments, are essential to the quality of life in Maine. MaineDOT policies help ensure that facilities for pedestrians and bicyclists are considered for incorporation into all transportation decisions on the state's highways and bridges, and in village areas. Communities throughout the state have identified needs for off-road bicycle and pedestrian trails that connect communities, neighborhoods and schools. Bicycle and pedestrian investments reduce the need for congestion-relief measures, attract economic development and tourism, lead to healthier lifestyles and help reduce air pollution. Over the coming years, MaineDOT will develop projects to address these goals.

V. Aviation Initiative

Aviation: $760 Million

Maine's aviation system is a key link to the global and national economy. Air corridors act as invisible highways that connect Maine to the world. Maine's current aviation system allows a passenger to choose between six commercial service airports in the state (Portland, Bangor, Presque Isle, Bar Harbor, Rockland and Augusta). An additional 30 public airports statewide support local economic development through charter, private aircraft and freight services, as well as aviation maintenance activities. In the coming years, new aviation technology will improve access to Maine's rural areas via these and other airports. The long-term aviation initiative focuses on:

- Maintaining Maine's 36 public airports and providing infrastructure for additional demands
- Developing an Airport Master Plan as defined by the *Maine Aviation System Plan Update* by 2012
- Enhancing safety at all publicly owned airports, including 100% clear approaches on primary runways by 2020
- Meeting all runway and taxiway requirements by 2020

- Providing a pavement condition index of 70% or greater for primary runways by 2010
- Developing safety plans and procedures by 2015
- Providing 95% fueling services at Level I, II and III airports by 2011
- Ensuring that by 2012, system airports are recognized in local comprehensive planning, and that each has compatible land-use planning, as well as business or financial plans
- Providing adequate air-side and land-side capacity by 2016
- Providing adequate vehicle parking, terminals and administration buildings by 2011

VI. Economic Connections Initiative

Economic Connections: $400 Million

MaineDOT, with its partners, including the Maine Turnpike Authority, Maine's Regional Councils and Metropolitan Planning Organizations, and surrounding states and provinces (as appropriate) are evaluating new transportation connections to promote well-planned economic growth in key economic areas throughout Maine. Current examples include the Lewiston/Auburn Downtown Connector Study, the Aroostook County Transportation Study, the Sanford Area and I-95 Transportation Study, the Gorham and I-95 Connections Study, and the Northeast CanAm Connections Study, which focuses on East-West connections. Each of these efforts is evaluating the extent to which economic growth and community preservation could be enhanced with transportation infrastructure investment. Future initiatives in this area will focus on:

- Developing, by 2015, multimodal corridor management plans for all CRESTs, with implementation completed on the highest priority corridors by 2030
- Continuing involvement in planning of future use and meeting future transportation needs of the Brunswick Naval Air Station, when it is decommissioned, to best support economic development in the Greater Brunswick area (implementation funding needs and timelines are unknown at this time)
- Expanding partnerships with the Maine Technology Institute, the Maine Composite Alliance, the University of Maine and emerging businesses

VII. Public-Private Partnerships Initiative: $200 Million

Public-private partnerships are growing in popularity as a method for funding, constructing and managing transportation infrastructure in the U.S., Canada and around the world. These partnerships range from private entities building and operating new infrastructure under license from state or provincial governments, to private and government interests working together to fund infrastructure expansions to meet the needs of government and the private sector. MaineDOT is utilizing public-private partnerships with increasing frequency, but this important tool is still underutilized. Such partnerships are critical if we are to react to changing demographic, social and economic demands on Maine's transportation systems.

This initiative calls for MaineDOT to work with the Regional Councils, the State Planning Office, the Maine Department of Environmental Protection and other agencies involved in land-use development; the Maine Turnpike Authority; Metropolitan Planning Organizations; and municipalities across Maine to develop regional "Corridor Management Plans". These plans will coordinate land-use decisions with transportation improvements and investment. In order for these plans to be effective, transportation improvements must be coordinated with private investments made under MaineDOT's *Traffic Movement Permit* and *Entrance Permit* processes. These processes traditionally result in localized improvements funded by individual investors—improvements that could be more effective when applied collectively and regionally. By pooling state, local, and private resources through mechanisms such as regional impact fees, more regional system improvements can be made with greater equity and predictability for the business sector.

MaineDOT also uses a federalized State Infrastructure Bank (SIB), in which it makes low-interest loans to communities for federally eligible transportation projects. This plan bolsters the loan program by creating a non-federal SIB and expanding its use to non-federally eligible transportation projects on local roads and rural minor collectors. One example of how this program can be utilized is in the partnership of MaineDOT and municipalities to fund up-front improvements in areas of anticipated development. To recapture the public investment, developers would be assessed an impact fee based on their fair share of the traffic impacts. One important distinction of SIB investments is that funding from the state is a revolving loan program that can be used repeatedly. The following pages provide contemporary examples of three public-private partnerships MaineDOT has recently facilitated.

Connecting Maine Initiatives

Public-Private Partnerships - Highways
Ellsworth, Route 1 and Route 3 Triangle

MaineDOT and the city of Ellsworth combined efforts to improve traffic flow through the High Street and Route 3 Triangle area that would allow for economic development opportunities currently limited by traffic congestion. A detailed study produced the optimum traffic patterns and evaluated the amount of retail build-out that could be accommodated by the new patterns. The estimated cost of improvements was approximately $3.1 million.

MaineDOT was able to direct approximately $600,000 that had previously been programmed for work in the target area to aid with the new configuration, but did not have sufficient funding for the entire project. The city decided to pursue funding for constructing the needed improvements and recapture its investments by adopting an impact fee ordinance, which would assess each eligible development with a per-vehicle trip fee. The intent was to build the infrastructure in anticipation of likely growth and to provide for an equitable distribution of the costs of improvements.

The strategy is working. New developments are being built and more are anticipated. The improvements will speed up development review and construction because the highway improvements are completed. Collectively, we were able to meet this challenge, where individually this would not have been possible. This model for partnership is being discussed with other communities experiencing growth pressures and traffic problems.

Public Private Partnerships - Railroads
Danville Junction

The St. Lawrence & Atlantic Railroad's (SL&A) interline rail traffic with Pan Am Railways (PAR) is interchanged at Danville Junction in Auburn. Due to an increase in inter-business partnering between these two rail companies, interline traffic has grown 68% in four years, from 14,400 carloads in 2002 to 21,000 carloads in 2005. However, the existing and sub-optimal track configuration between the SL&A and PAR at Danville Junction and the increased traffic levels result in:

- Increased public wait-times at the blocked Danville Junction Road and Station Road crossings while rail cars are switched between SL&A and PAR. This switching requires these two roads to be blocked a total of 2.5 hours each day.
- Increased noise and air pollution while locomotives conduct this switching, waiting for other conflicting train movements through the junction and from highway vehicles idling at the blocked road crossings.
- Increased transit time for key Maine businesses, reducing their competitiveness.

The resulting project is a public-private partnership under MaineDOT's Freight Rail Integration Program (FRIP) involving Pan Am Railways, the St. Lawrence & Atlantic Railroad, MaineDOT and the Federal Highway Administration. The two railroads and MaineDOT will be partnering on the entire project using state bond funds and FHWA Section 130 Crossing Safety Improvement program funds at the highway crossings.

The project will reduce travel times for Maine businesses shipping to western destinations by an estimated 36 hours or more. It will also reduce locomotive and automobile emissions in Danville Junction and will reduce public wait-times at the crossings by 55%. With a total cost of $5.2M, the project could not have been completed as designed, and the maximum economic and public benefit could not have been achieved, without all of the partners making significant financial and other contributions to the project.

Public-Private Partnerships - Transit
Island Explorer

Acadia National Park receives over three million visitors a year, mostly between the end of June and mid-October. The park roads are congested, and parking spaces are inadequate to address this level of use, sometimes resulting in unsafe parking along roadsides. Air quality is also a major concern. In addition, the town of Bar Harbor also experiences seasonal traffic congestion and parking shortages. Congestion sometimes negatively affects the visitor experience on Mount Desert Island.

The *Island Explorer* bus service is a public-private partnership. It was originally conceived in 1999 by the Mount Desert Island League of Towns, the four island communities, Acadia National Park and MaineDOT. More than 20 federal, state and local agencies, other organizations, and private businesses now participate through a formal agreement. The *Island Explorer* is a seasonal, fare-free, public transportation system providing service to Acadia National Park and the communities on Mount Desert Island and the Schoodic peninsula. In its first operating season, *the Island Explorer* carried over 140,000 passengers—twice the projected ridership. 2006 ridership was over 300,000.

The Friends of Acadia (FOA), a non-profit park support group, is supporting MaineDOT's and the National Park Service's efforts to develop an intermodal center that would combine day use and commuter parking with an information center, and a bus-maintenance facility. FOA has purchased the 369-acre Crippens Creek site, located along Route 3 in the town of Trenton. MaineDOT will purchase a portion of this parcel from FOA, with the remainder being land-banked.

FOA and the Mount Desert League of Towns worked with Acadia National Park to develop the *Island Explorer*. Without the support of all participating groups, the project would never have gotten off the ground. Continuing financial support from private businesses has allowed the service to remain fare-free, to increase service and to extend the operating season. The *Island Explorer* is nationally recognized as a success in reducing congestion and air emissions while enhancing the visitor experience and supporting tourism.

More recently, Jackson Laboratories has participated financially in adding capacity to the *Island Explorer,* to help meet the commuting needs of its employees.

The 123rd Legislature's Goals and Objectives

During the development of *Connecting Maine*, the 123rd Legislature passed "*LD 1790 - An Act to Secure Maine's Transportation Future*". This bill:

- Provides long term-goals for certain MaineDOT capital activities
- Requires MaineDOT to report biennially on progress toward those goals
- Provides a statute-based debt policy for transportation
- Provides a mechanism for dedicated transportation revenue streams to be used to leverage revenue bonding

Although the long-term goals outlined in LD 1790 are more aggressive than the seven initiatives in the previous section of *Connecting Maine*, they are designed to produce a similar outcome. MaineDOT has adopted these goals in *Connecting Maine*. The following section describes how LD 1790 goals augment the initiatives described in the previous section, and are summarized in the table under the Financial Costs section of this plan (pages 32-33).

A. Improve and modernize the Interstate system to a "good" or better condition than on July 1, 2007 so as to maintain a free and safe flow of traffic.
MaineDOT interprets this goal achieving the same outcome at the same cost as the Interstate Improvement and Modernization section of the Highways Initiative.

B. By 2022, reconstruct principal and minor arterial highways that are not built to nationally accepted design standards.
Connecting Maine focuses its Non-Interstate Arterial Highway Modernization Initiative on 195 miles of structurally and geometrically inadequate miles of highways, mostly in rural areas, while the urban areas were addressed under the Congestion Management Initiative. The LD 1790 goal above does not distinguish between urban and rural areas, and aggressively requires completion five years sooner, ending in 2022. This will require additional resources, projected at $1.3 billion over the next 20 years—approximately twice the level estimated in *Connecting Maine*.

C. By 2027, reconstruct major collector highways that are not built to the department's state design standards.
Connecting Maine focuses the Secondary Highways section of its Highways Initiative on 1,850 miles of seasonally posted collector roads and other important economic connectors, many of which are annually posted to reduced weight limits. LD 1790 focuses on all major collectors not built to state standards **and** requires that they be addressed by 2027. The projected cost for this directive is estimated at $2.4 billion.

D. Reconstruct State-Aid minor collector highways in partnership with municipalities, to the extent municipalities elect to undertake such reconstruction pursuant to Chapter 19, subchapter 6.
MaineDOT has interpreted that this goal is captured in the Secondary Highway section of the plan's Highways Initiative.

E. By 2027 achieve an even distribution of the remaining service life of drainage or structural features on the arterial and major collector highways.
MaineDOT interprets this goal achieving the same outcome at approximately the same cost as presented in the Highway Paving section of the plan's Highways Initiative.

F. By 2027 achieve an even distribution of the service life remaining before bridges need major rehabilitation or replacement, excepting extraordinary-cost bridges as determined by the department, or low-use or redundant bridges as defined in section 562.
MaineDOT interprets this goal achieving the same outcome at approximately the same cost as the *Connecting Maine* Bridge Initiative.

G. Maximize the benefit of capital improvements to freight and passenger transportation users while mitigating, to the extent practicable, energy and environmental impacts.
MaineDOT interprets this goal achieving the same outcome at approximately the same costs as *Connecting Maine's* Multimodal Connections Initiative.

Financial Costs: 10-Year Plan and Infrastructure Gap

Although *Connecting Maine* is a 20-year plan that will be periodically updated, it is helpful to look at its initiatives on a 10-year horizon. Understanding the project, funding and resource needs for the first 10 years of this plan allows MaineDOT and its partners to better understand the barriers in meeting these goals. It also allows policy-makers to react to a large and immediate funding gap, estimated at $2.5 to $3 billion over the next 10 years, required to execute this plan and for Maine to realize its economic and quality-of-life benefits.

The following is a summary table of the *Connecting Maine* Initiatives and LD 1790 goals, their estimated 20-year cost and the 10-year installment cost. All costs presented are expressed in 2006 dollars. No estimation of inflation over time has been applied.

Summary of Initiatives and Goals
10-Year Installment and 20-Year Estimate

(Figures in millions of dollars unless otherwise noted)
(Estimates based on 2006 dollars)

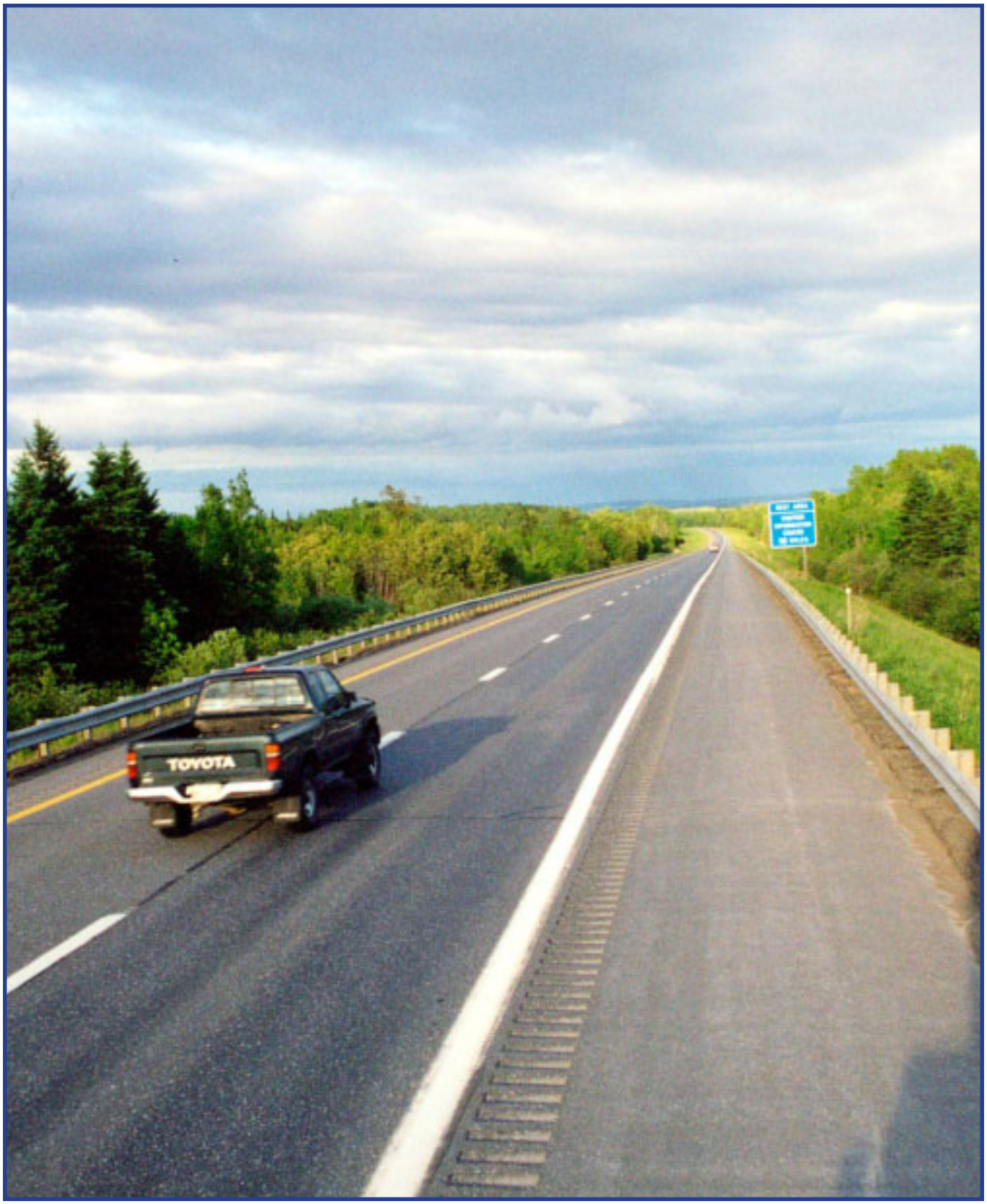
Initiative	*Connecting Maine Initiatives* 10-Year Installment	*Connecting Maine Initiatives* 20-Year Estimate	*LD 1790* 10-Year Installment	*LD 1790* 20-Year Estimate
I. Highways				
Safe Highways *Additional funding to further reduce the injuries, deaths, severity of crashes, and economic impacts caused by crashes.*	$110	$220	$110	$220
Interstate Improvement and Modernization *Improve and modernize Maine's 20 to 50 year old interstate by adding efficiencies and capacity to congested segments, and rehabilitating aging pavement, bridges, and drainage structures. This is quickly becoming a major safety concern and also impacts productivity and commerce.*	$500	$1,000	$500	$1,000
Arterial Highway Modernization *Modernize the remaining 195 miles of rural substandard sections of this economically important element of the highway system.*	$341	$682	$870	$1,300
Secondary Highway Modernization *Modernize and remove annual road postings from 1,850 miles of the most economically important element of the secondary highway system.*	$925	$1,850	$1,200	$2,400
Highway Paving *Adequately preserve Maine's investment in its highway system and maintain all highways in good serviceable condition.*	$810	$1,620	$810	$1,620
Congestion Management *Improve highway efficiency and capacity to combat growing congestion statewide reducing delay by 9.5% by 2030. Delay caused by congestion costs Mainers 0.5 billion dollars annually and impacts air quality.*	$470	$1,000	$500	$1,000
Highways Subtotal	**$3,156**	**$6,372**	**$3,990**	**$7,540**
II. Bridges *MaineDOT manages 2,967 bridges. Of that number, 280 are at risk of posting, reposting at a lower speed, or closure within 10 years. At the current replacement rate of 14 bridges per year, bridge life expectancy would need to be 185 years. To achieve the needed 80 year life expectancy, we need to replace 32 bridges per year.*				
Bridges Subtotal	**$1,300**	**$2,600**	**$1,300**	**$2,600**
III. Multimodal Connections Initiative				
Intercity Passenger and Commuter Rail *Expand passenger rail services north of Portland including new energy efficient equipment. Develop passenger rail to Yarmouth; and extend services to Brunswick and Lewiston/Auburn.* *MaineDOT will continue to evaluate the feasibility of extending passenger rail service connections to Rockland and Montreal.*	$139	$139	$139	$139
Transit *Replace buses such that 50% of the transit fleet retains more than 50% of its useful life. Continue to transition fleets to clean fuels to improve air quality. Intermodal facilities will be developed to provide connectivity between modes. Replace the aging Ferry Service vessels and meet USCG requirements.*	$178	$350	$178	$350
Freight Intermodal *Improve ports, freight rail and freight flows within and through the state.*	$60	$120	$60	$120

Summary of Initiatives and Goals
10-Year Installment and 20-Year Estimate

(Figures in millions of dollars unless otherwise noted)
(Estimates based on 2006 dollars)

Initiative	*Connecting Maine Initiatives* 10-Year Installment	*Connecting Maine Initiatives* 20-Year Estimate	*LD 1790* 10-Year Installment	*LD 1790* 20-Year Estimate
III. Multimodal Connections Initiative *(cont.)*				
Acquisition of Key Rail Corridors — *Acquire rail corridors under threat of abandonment to preserve and utilize the right of way for future transportation needs.*	$32	$64	$32	$64
Multimodal Connections Initiative Subtotal	**$409**	**$673**	**$409**	**$673**
IV. Quality of Place Initiative				
Quality Communities — *Provide for regionalized planning of transportation corridors throughout Maine and implementation of programs aimed at maintaining and enhancing community character, such as: Community Investment Sharing, Transportation Enhancements, Community Livability, Recreational Access, and Community Gateways.*	$68	$140	$68	$140
Healthy Trails — *Develop off-road bicycle and pedestrian trails connecting communities, neighborhoods, and schools. Bicycle and pedestrian investments help improve Maine's quality of life, reduce the need for congestion relief measures, help attract economic development and tourism, lead to healthier lifestyles, and help reduce air pollution.*	$42	$80	$42	$80
Quality of Place Initiative Subtotal	**$110**	**$220**	**$110**	**$220**
V. Aviation — *Maintain Maine's 36 public airports and provide infrastructure for additional demand.*				
Aviation Subtotal	**$380**	**$760**	**$380**	**$760**
VI. Economic Connections Initiative — *Implement elements of key economic transportation investments. Current examples include the Lewiston/Auburn Downtown Connector, Aroostook County Transportation Study, Sanford Area and I-95 Transportation Study, Gorham and I-95 Connections Study, Northeast CanAm Connections Study.*				
Economic Connections Initiative Subtotal	**$200**	**$400**	**$200**	**$400**
VII. Public-Private Partnerships — *Coordinate land use decisions with transportation improvements and investment, and pool state, local, and private resources to promote regional systems improvements that provide greater equity and predictability for the business sector.*				
Public-Private Partnerships Subtotal	**$100**	**$200**	**$100**	**$200**
TOTALS	**$5.7B**	**$11.2B**	**$6.5B**	**$12.4B**

Summary of Needs:	*Connecting Maine Initiatives*	*LD 1790*
10-Year Transportation Need	**$5.7 Billion**	**$6.5 Billion**
10-Year Anticipated Revenue	**$3.2 Billion**	**$3.2 Billion**
Infrastructure Gap	**$2.5 Billion**	**$3.3 Billion**


TOYOTA

Filling the Gap

The previous section detailed a financial gap of $2.5 to $3.3 billion to achieve the initiatives and goals in this plan over the next ten years. The existing motor-fuels tax is no longer adequate to meet current and future multimodal transportation needs. Current motor-fuel tax revenues are inadequate to support Maine's highway network, let alone the other modes of transportation necessary to maintain an efficient transportation system. In Maine, the dedicated State Highway Fund is constitutionally prohibited for uses other than highway and bridge improvements, thereby leaving non-highway modes underdeveloped due to insufficient financial support.

Additionally, construction-cost inflation and significant increases in energy costs have reduced the purchasing power of the motor-fuels tax. The cost of construction materials has significantly outpaced the rate of consumer inflation, due to increased asphalt and fuel costs, plus increasing worldwide demand for construction materials.

Maine's tax on gasoline is currently 27.6 cents per gallon, and on diesel fuel it is 28.8 cents per gallon. Maine taxes on internal combustion engine fuels are indexed to inflation using the Consumer Price Index, with adjustments subject to legislative review each biennium.

A 2005 Maine Better Transportation Association report entitled "Losing Ground" shows that the Highway Fund has grown at one-third the rate of other state revenues such as the General Fund, local property tax and motor-vehicle excise revenues.

The Highway Fund is explicitly a "highway fund," and cannot be used for construction, reconstruction, maintenance, and repair of non-highway-and-bridge transportation improvements and services (e.g., transit, passenger rail, trails, port, and air transportation infrastructure). This means that operating, capital, and maintenance costs for non-highway-and-bridge transportation must be paid for by other sources. At the same time, and without a fund source, Maine's 1991 Sensible Transportation Policy Act and upcoming rule changes, to which MaineDOT must adhere, require the department to choose non-highway-and-bridge investment alternatives over adding new highway capacity, whenever feasible.

Erosion of Buying Power and Federal Flexibility – Highway & Bridge Program

The chart above showing expenditures by state fiscal year was published in MaineDOT's *Biennial Capital Work Plan for Fiscal Years 2008-2009.* It measures two factors that have impacted the ability to address highway and bridge needs in our state—the first being construction inflation. Since the FY 2004-2005 biennium, inflation has robbed the state of an estimated $433 million worth of purchasing power through the current biennium due to actual inflation of 35% in FY 2006-2007, and an estimated 10% estimated to impact the current *Work Plan*.

Additionally, flexible federal fund expenditures—those funds not earmarked by Congress for specific projects—have declined nearly $100 million, as compared to FY 2004-2005. This erosion of flexible funds, coupled with the lost of buying power, contributed significantly to the project deferrals experienced in the last biennium, and also limits our ability to address highway and bridge priorities established through the MaineDOT and regional planning process.

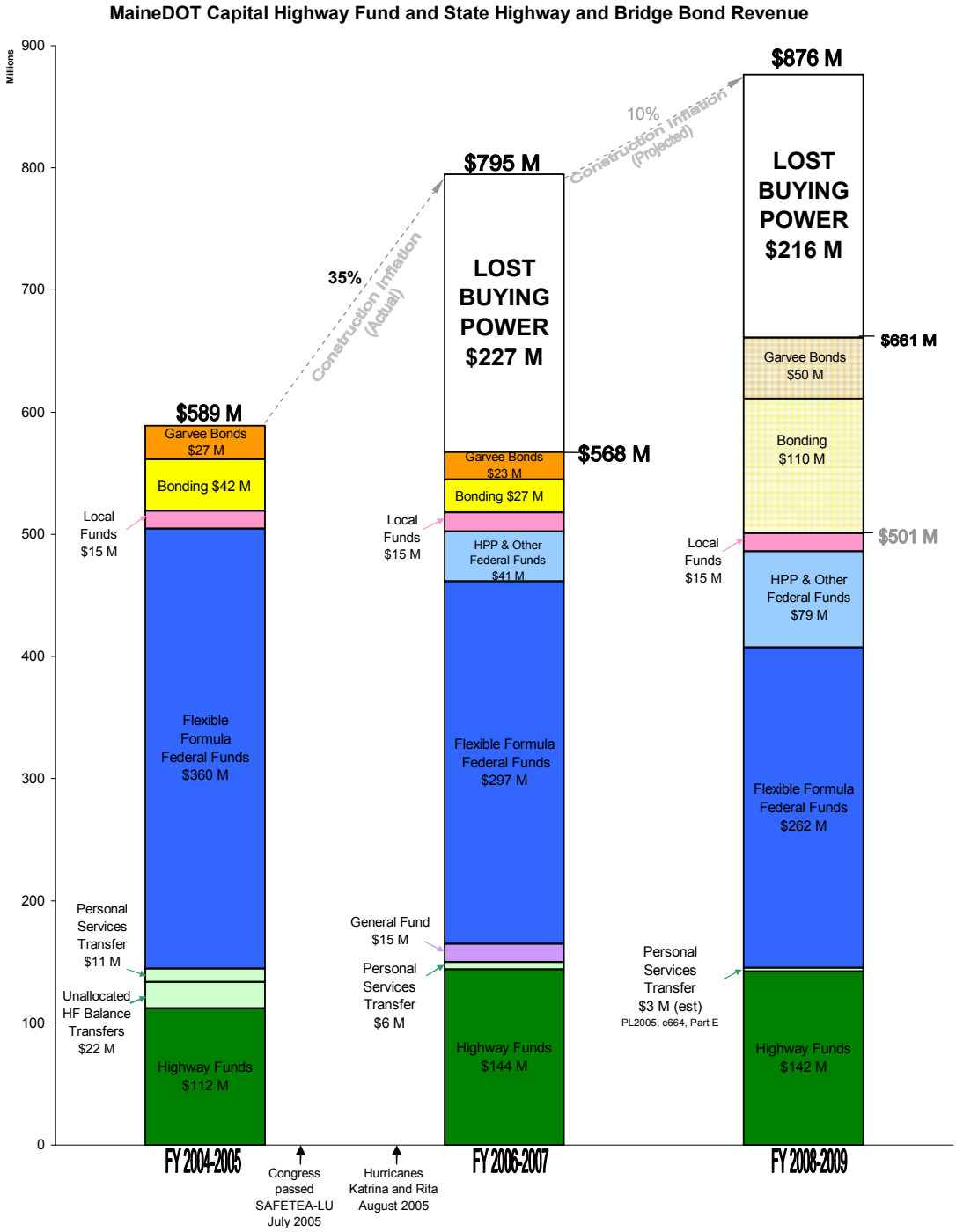
Federal High Priority Projects, (HPP) are important to our transportation system, and those projects in Maine are of great value. However, the next reauthorization act must increase resources to states in order to fund HPP, over and above those flexible core funding programs that MaineDOT depends on to address federally eligible highway and bridge projects. This state is fortunate to have a congressional delegation that understands the importance of transportation to Maine people and the Maine economy. All of our congressional members were supportive higher funding levels than SAFETEA-LU finally provided during the SAFETEA-LU reauthorization deliberations in 2005.

In his letter introducing *Connecting Maine,* Governor Baldacci wrote of his desire to see the federal government "step up" its efforts to develop and fund a national transportation policy for the U.S. As difficult as it is to believe, the last truly national transportation policy was President Eisenhower's initiative to construct the Interstate Highway System. In 2006, we celebrated the 50th anniversary of that national achievement. It changed the country, the economy, and our way of life.

Fifty-two years later, it's time to develop a new national transportation policy for the 21st Century. Transportation infrastructure is like an inactive volcano. It's easy to ignore, until it erupts. Bottlenecks on our regional highway networks cause delay in our goods getting to market, thereby making our businesses less competitive; growing traffic on systems unprepared for the rapidly growing volumes create unsafe travel conditions; undeveloped potential in passenger and freight rail systems, due to lack of resources, limits choices for travelers and our ability to reduce transportation's impact on land use and air quality; aging bridges need to be posted or closed before they become unsafe—these are examples of slowly erupting problems and challenges that will affect our country, our economy and our way of life, if the federal government fails to "step up".

The 18.3-cent federal motor-fuels tax has not been increased in 14 years. When factoring in consumer inflation, the buying power today is equivalent to 12.7 cents. When you consider that construction inflation discussed above, inflation largely driven by the ever-increasing price of oil, our federal buying power is even less. The federal share of our total capital program has been trending downward, as discussed in this section of this plan. We must work with members of Congress and our colleagues in the states to enhance the federal funding role, especially in light of our aging infrastructure and the villain of inflation.

Lost Buying Power

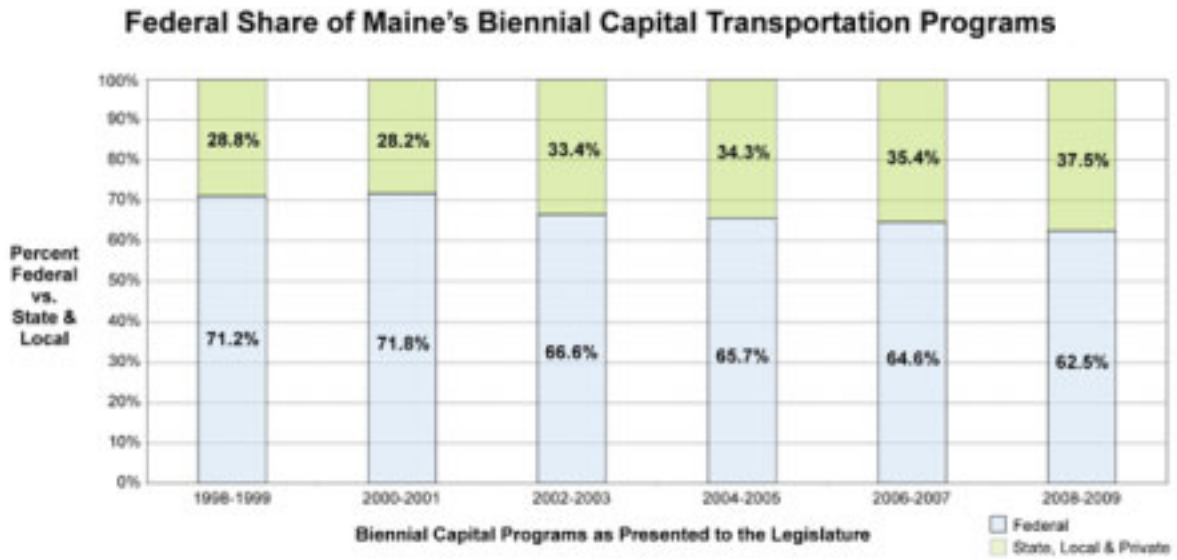


The Federal Role

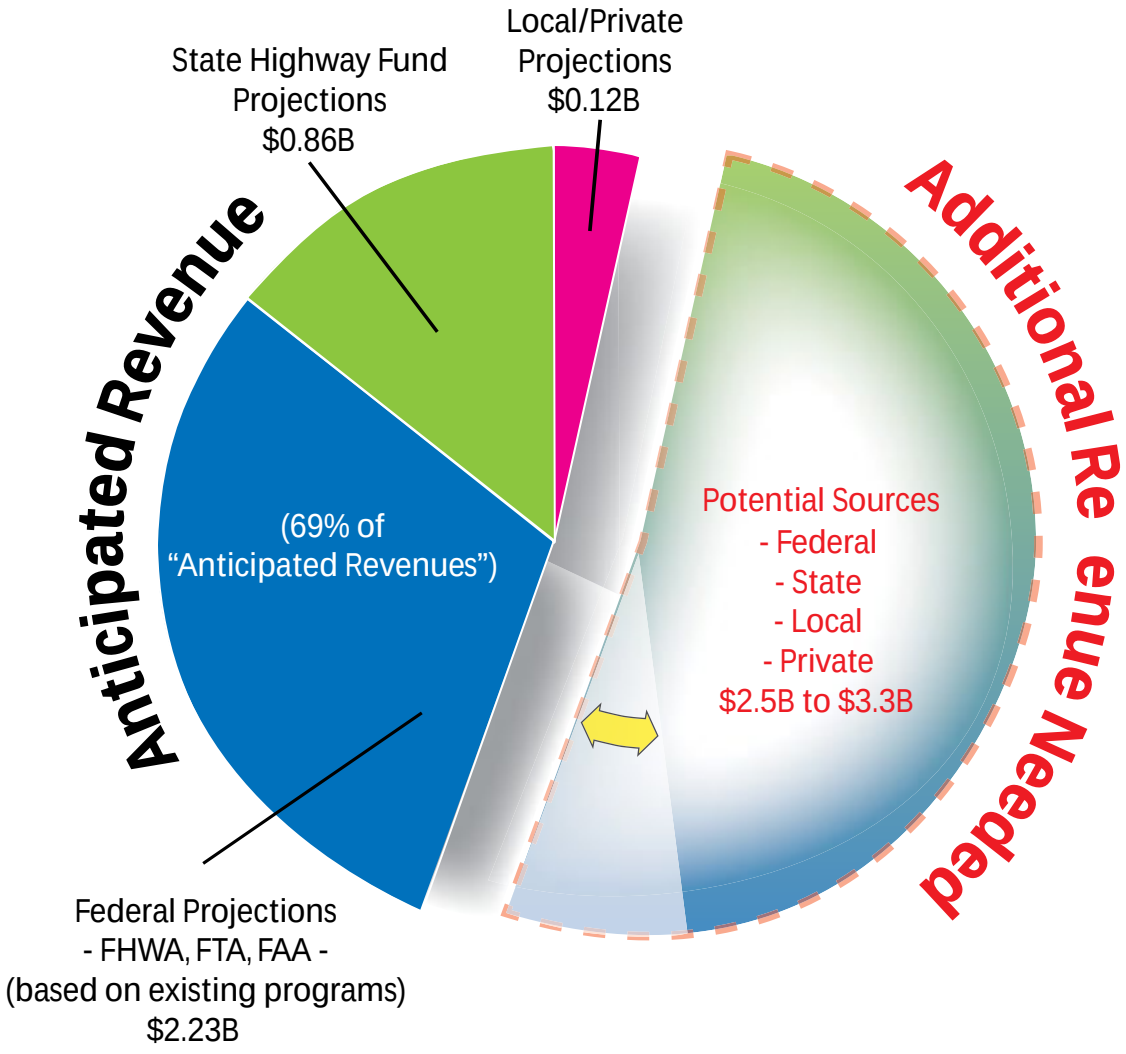
The American Association of State Highway and Transportation Officials (AASHTO), in its February 2007 study entitled "Future Needs of the U.S. Transportation System," reported that "Federal highway assistance, which provides nearly half of capital spending, could be in crisis as early as 2008. Unless a solution is found, the program may have to be cut as much as $11 billion in FY 2009…… It will take the equivalent of a 3-cent federal fuel tax increase to sustain the federal program at the levels approved by SAFETEA-LU." (SAFETEA-LU is the federal surface transportation funding legislation for fiscal years 2005-2009.)

This report and several others were developed to advise the National Surface Transportation Policy and Revenue Commission, formed by Congress under SAFETEA-LU to develop long-range funding recommendations, and to assess the future of the federal government's role in national transportation funding and policy.

National statistics show a long-term trend of decline in the proportion of federal funds as compared to state and local funds used in transportation across the U.S. The federal funding estimated in MaineDOT's *FY 2008-2009 Biennial Capital Work Plan* accounts for just 62.5% of the funding for the department's total capital program. This compares to 71.2% in *FY 1998-1999*. These federal figures include funding from the Federal Highway Administration (FHWA) for highways and bridges, from the Federal Transit Administration (FTA) for transit programs and from the Federal Aviation Administration (FAA) for aviation programs. The federal Highway Trust Fund typically allocates approximately 80% of its federal aid to highway and bridge programs, and 20% to transit programs.



Filling the Gap



The pie chart on the preceding page presents a breakdown of where the needed resources could be derived to fund the $5.4 billion 10-year investment initiatives outlined in the Summary of Initiatives and Goals table (pages 32 and 33). The left-hand side of the pie chart illustrates where and in what proportion the $3.2 billion in anticipated revenue will be realized, based on current funding expectations. The right-hand side of the pie chart estimates where the $2.5 to $3.3 billion in new resources could be derived. For every dollar the federal government fails to raise, the state or local governments will have to replace that dollar if the strategic level of funding for transportation is to be met.

Innovative Financing: Options for a New Funding Model

In developing a response to the Maine Legislature's 2004 directive to lead a discussion and report back on the future of transportation funding in Maine, MaineDOT commissioned the Margaret Chase Smith Policy Center (MCSPC) of the University of Maine at Orono to conduct research on funding long-term transportation needs and to explore alternative financing options. The MCSPC study identifies 16 financing options, their benefits, and corresponding concerns. These options fall under four broad categories—*Taxes*, *Direct Pricing*, *Tolls*, and *Fees*.

Of the 16 funding options identified, several are probably not applicable to Maine due to the rural nature of our state. Several others do appear to merit further consideration, including:

- Mileage-based fees
- Value pricing and managed lanes
- Distance-based (vehicle) fees and price variability
- State partnerships with public, quasi-public and private entities
- Public-private partnerships
- Tolling (new capacity only)
- Innovative Debt policies

The Impacts of Transportation Infrastructure Investment on the Maine Economy

As is noted throughout *Connecting Maine*, transportation is critical to Maine's economic and social well-being. In order to quantify the economic impacts of different levels of transportation investments, MaineDOT contracted with the Maine Center for Business and Economic Research at the University of Southern Maine (USM) to evaluate the impacts of (1) infrastructure investments that reduce congestion and eliminate road postings, (2) transit and passenger rail investments, and (3) freight improvements for railroads and ports. USM's Dr. Charles Colgan headed this effort, using estimated costs and schedules of development for the identified strategic investments. In a forthcoming USM publication entitled *Changes in the Maine Economy from Strategic Investments in the Transportation System*, Dr. Colgan utilizes economic modeling to determine that for the identified infrastructure investments, employment would increase by 2,465 additional jobs by 2030 and the Maine State Gross State Product (GSP) would increase more than $2.7 billion (or an average of $113 million per year) over the same period, compared with an economy in which the transportation system performed no better than today's system. This investment would yield at least a $3.30 increase in Maine GSP for every dollar invested in the system. By contrast, if none of the identified strategic transportation infrastructure investments were to occur, and only current spending levels were maintained, the Maine economy would lose 5,800 jobs (costs are in 2006 dollars). Because not all of the infrastructure improvements proposed in *Connecting Maine* was included in this research, Dr. Colgan's estimate is considered to be very conservative. The USM report is expected to be published in early 2008.

In addition to the USM study, MaineDOT commissioned the Maine Development Foundation to conduct a series of interviews with business leaders throughout the state. A total of 23 business leaders representing the following sectors were interviewed, including tourism, pulp and paper, agriculture, technology, health care and "traditional" businesses in Maine. Typical areas of concern regarding transportation focused on the costs of transporting people and materials to the business, and of delivering products or services to market in a cost-efficient and time-sensitive manner. The study report is also scheduled for release in early 2008.

Regional Investment Priorities

Overview

As was stated in the Introduction, MaineDOT relied heavily on its 11 Regional Councils to develop this statewide long-range transportation plan, and we anticipate continuing to work closely with them on an ongoing basis for its implementation. The Regional Councils each developed a Regional Transportation Assessment for the purpose of defining strategic regional needs. The Regional Assessments were formulated through a public process, wherein each region identified Corridors of Regional Economic Significance for Transportation (CRESTs), and the associated transportation, land-use and economic development objectives of each CREST. Following the completion of the assessments, MaineDOT commissioned the Regional Councils to develop and prioritize the key strategic policy issues, planning study needs and capital investments required to meet the objectives. MaineDOT will next work with the Regional Councils to develop multimodal corridor management plans for each CREST on a prioritized corridor basis, to further refine priority investment and land-use needs for each of the CRESTs.

The maps provided on the following pages illustrate the regional capital investment priorities identified by the Regional Councils. For purposes of this document, their findings have been consolidated into maps featuring each of Maine's six Economic Development Districts. Further information regarding the CRESTs, the transportation, land-use and economic development objectives of each CREST, and the Regional Councils' policy issues, planning studies and strategic investment details are available in the full document version of *Connecting Maine*. The full document is expected to be published in early 2008.

Examples of significant strategic investments as determined by the Maine Turnpike Authority

- Maintain existing infrastructure with an aggressive Reserve Maintenance program, including bridge rehabilitations, Intelligent Transportation System upgrades, and a 15-year paving cycle
- Modernize and widen through the Portland area
- Replace "Southern End" toll plaza
- Upgrade electronic toll collection (ETC)
- Upgrade park-and-ride lots and add truck parking at service plazas
- Make "Northern End" clear zone and safety improvements
- Rehabilitate the Gray maintenance facility
- Construct the Lewiston/Auburn Downtown Connector interchange

Regional Investment Priorities

Examples of significant strategic investments as determined by Maine's MPOs

Androscoggin Transportation Resource Center (ATRC)

- Construct new turnpike interchanges for downtown Lewiston-Auburn
- Pursue Access Management, Transportation System Management (TSM), and Transportation Demand Management (TDM) strategies
- Provide sidewalks and trails along arterial and collector roads
- Purchase the Lewiston Lower Road rail line from Lewiston to Lisbon Falls, establish the Auburn Passenger Intermodal Facility, and extend passenger rail from Portland through Auburn and on to Montreal
- Add and expand transit services to surrounding communities

Bangor Area Comprehensive Transportation System (PACTS)

- Replace and widen the bridge over the Stillwater River on Stillwater Avenue in Old Town
- Complete the reconstruction of Route 1-A in Hampden from Hillside Drive to Western Avenue (Route 9)
- Design and construct a new I-95/I-395 interchange, including flyovers
- Expand transit service with additional intermodal links and increased hours of service (evenings and Sunday)
- Plan and construct a Penobscot River Valley bicycle/pedestrian trail network

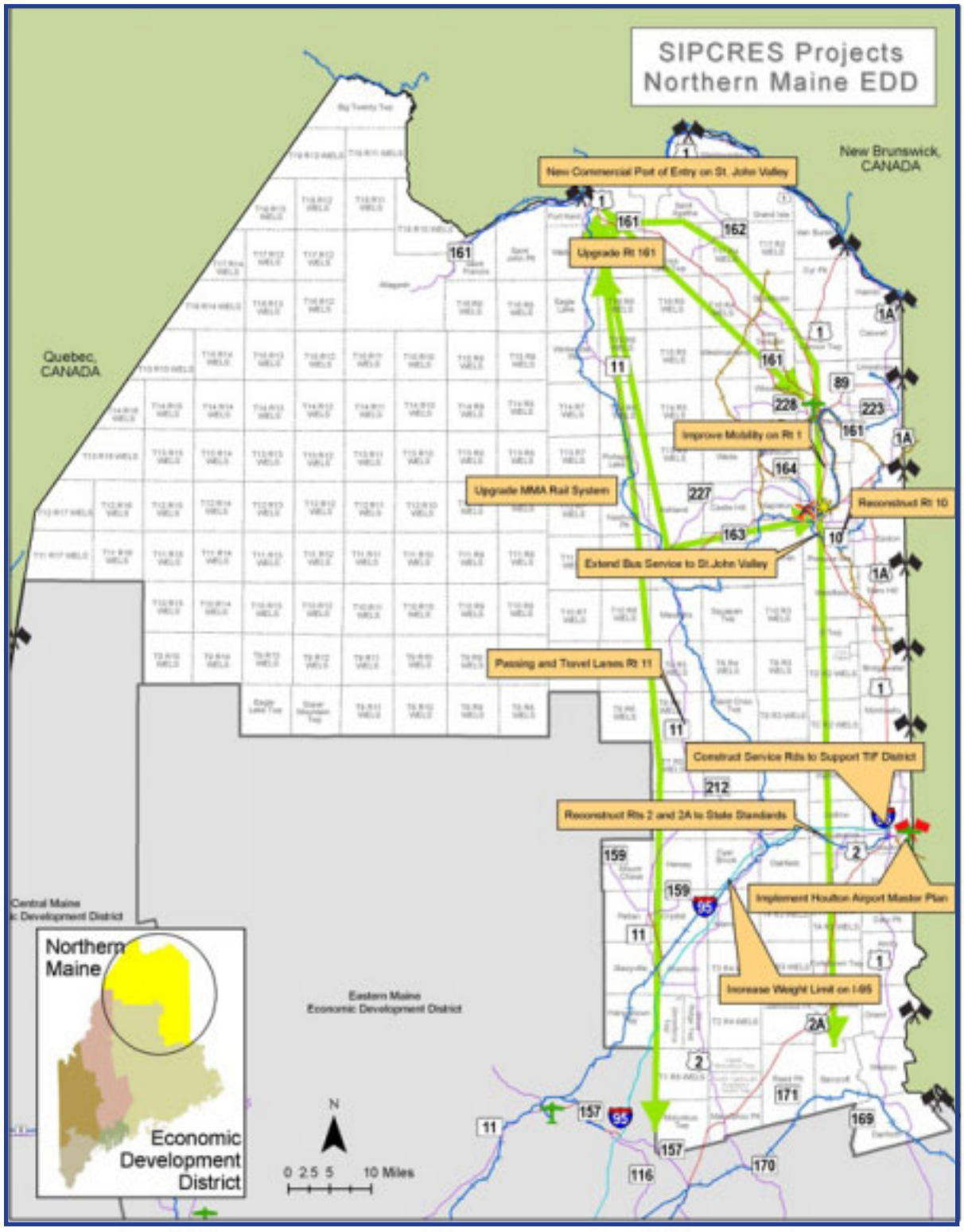
Kittery Area Comprehensive Transportation Study (KACTS)

- Support implementation and expansion of the Shoreline Explorer
- Establish transit links between Maine and Portsmouth, NH
- Link bicycle and pedestrian corridors and enhance access to schools
- Further develop GOMaine (TDM) program
- Implement Access Management and Corridor Preservation along Route 236

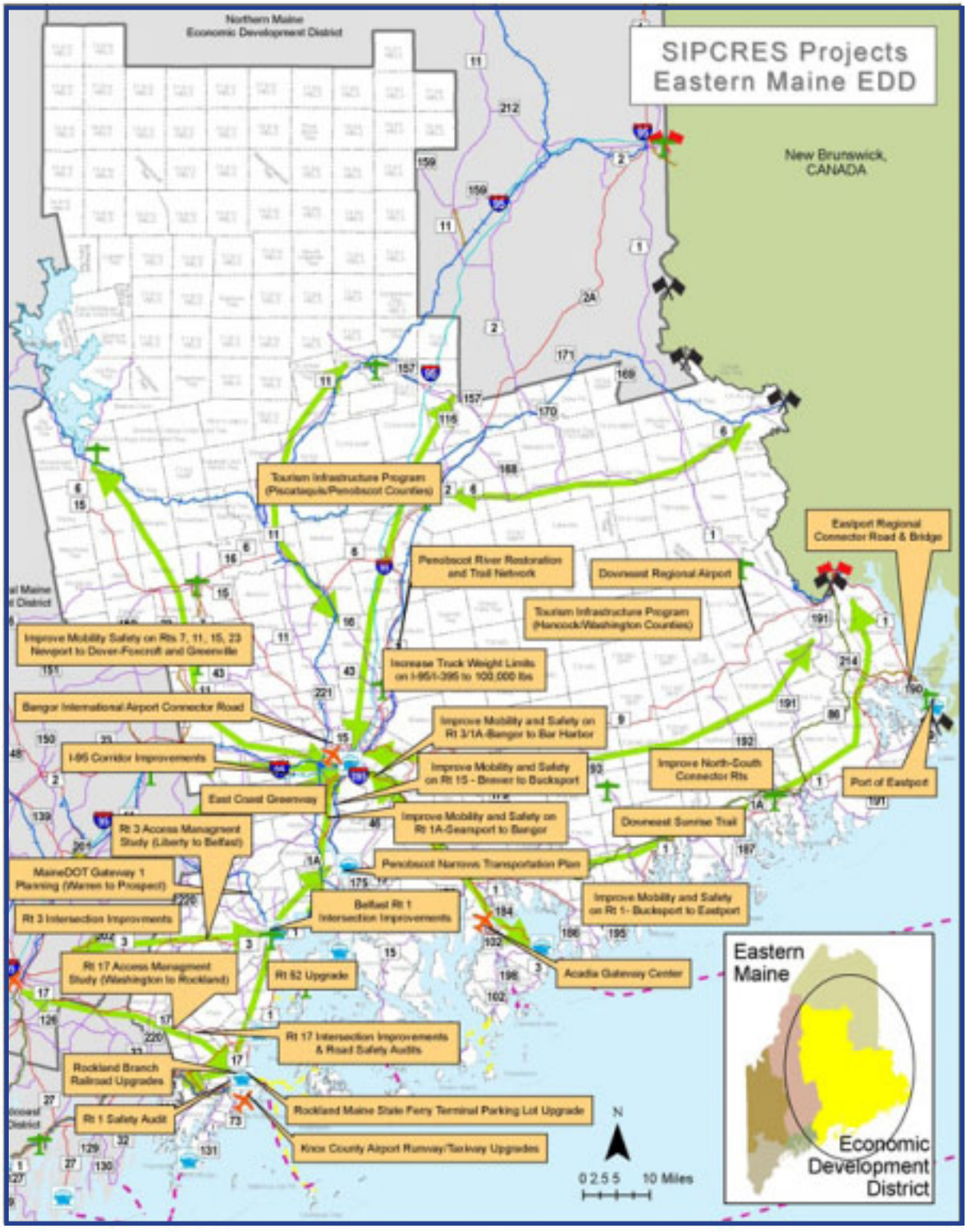
Portland Area Comprehensive Transportation Committee (PACTS)

- Implement the PACTS Long-Range Transportation Plan Arterial Investment Program
- Focus on intersections for congestion and safety management, and coordinate traffic signals
- Provide operational and capacity improvements to I-295 and the Maine Turnpike Authority
- Continue transit coordination efforts and increase the number of park-and-ride lots
- Provide bicycle and pedestrian linkages to natural areas

Regional Investment Priorities



Regional Investment Priorities



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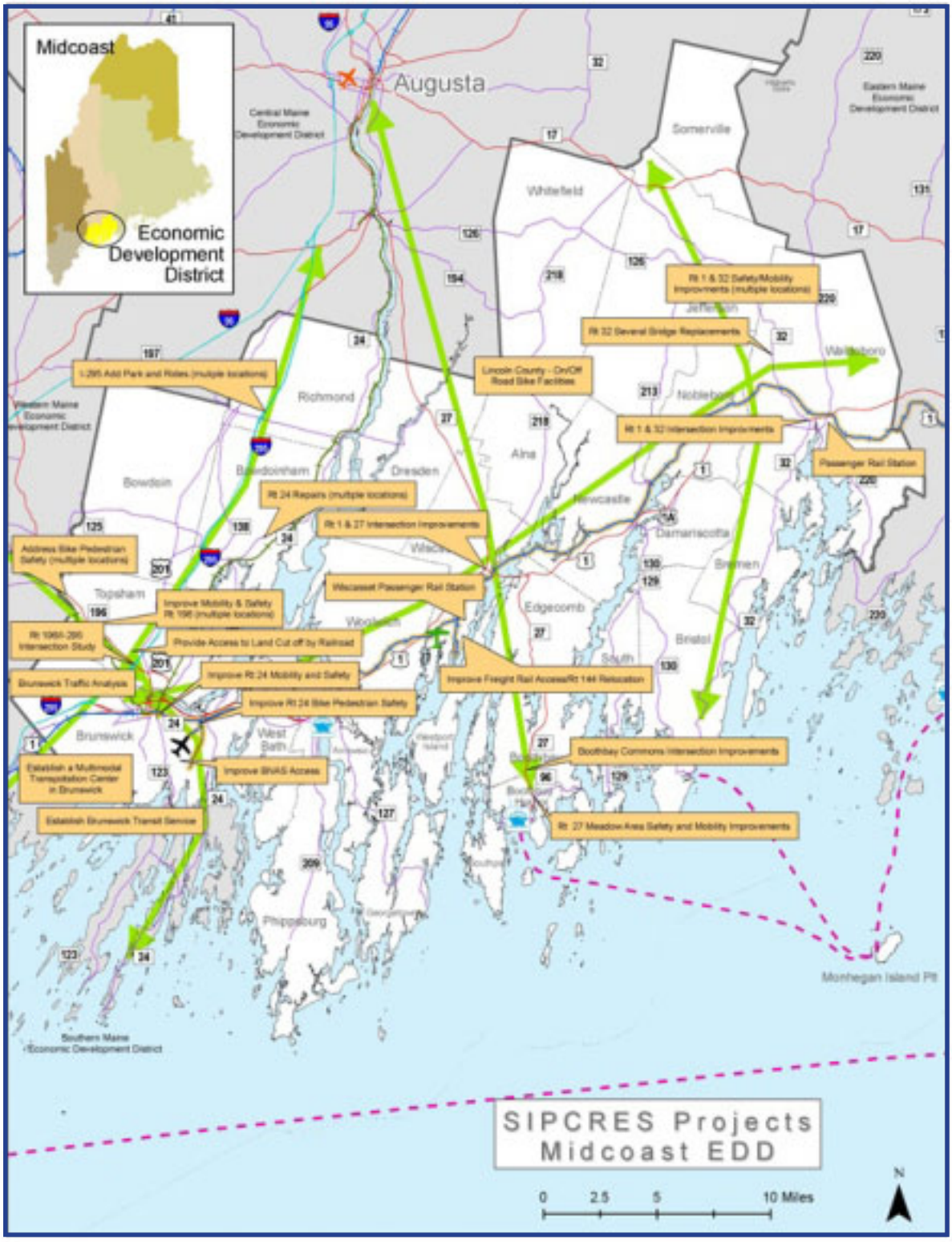

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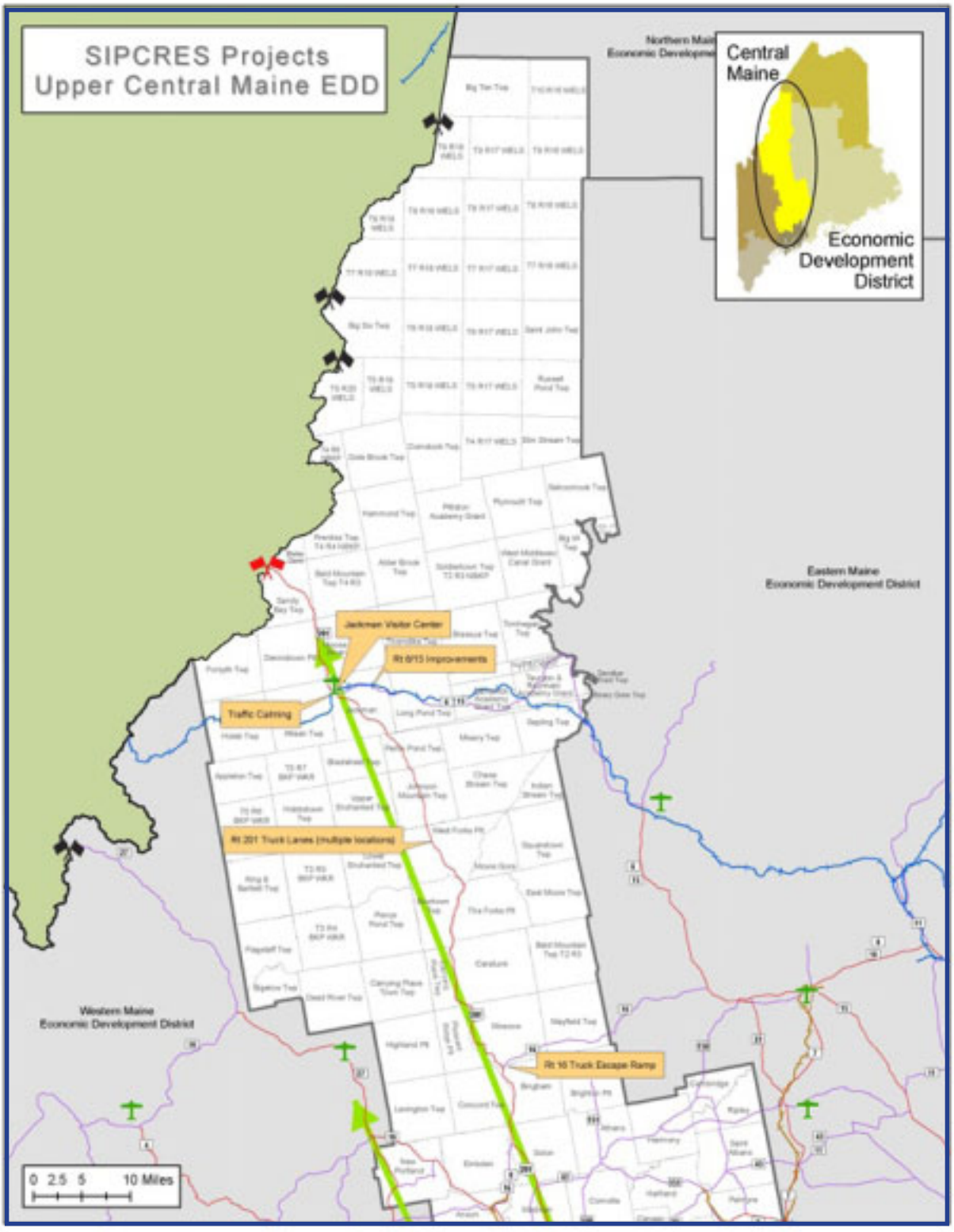

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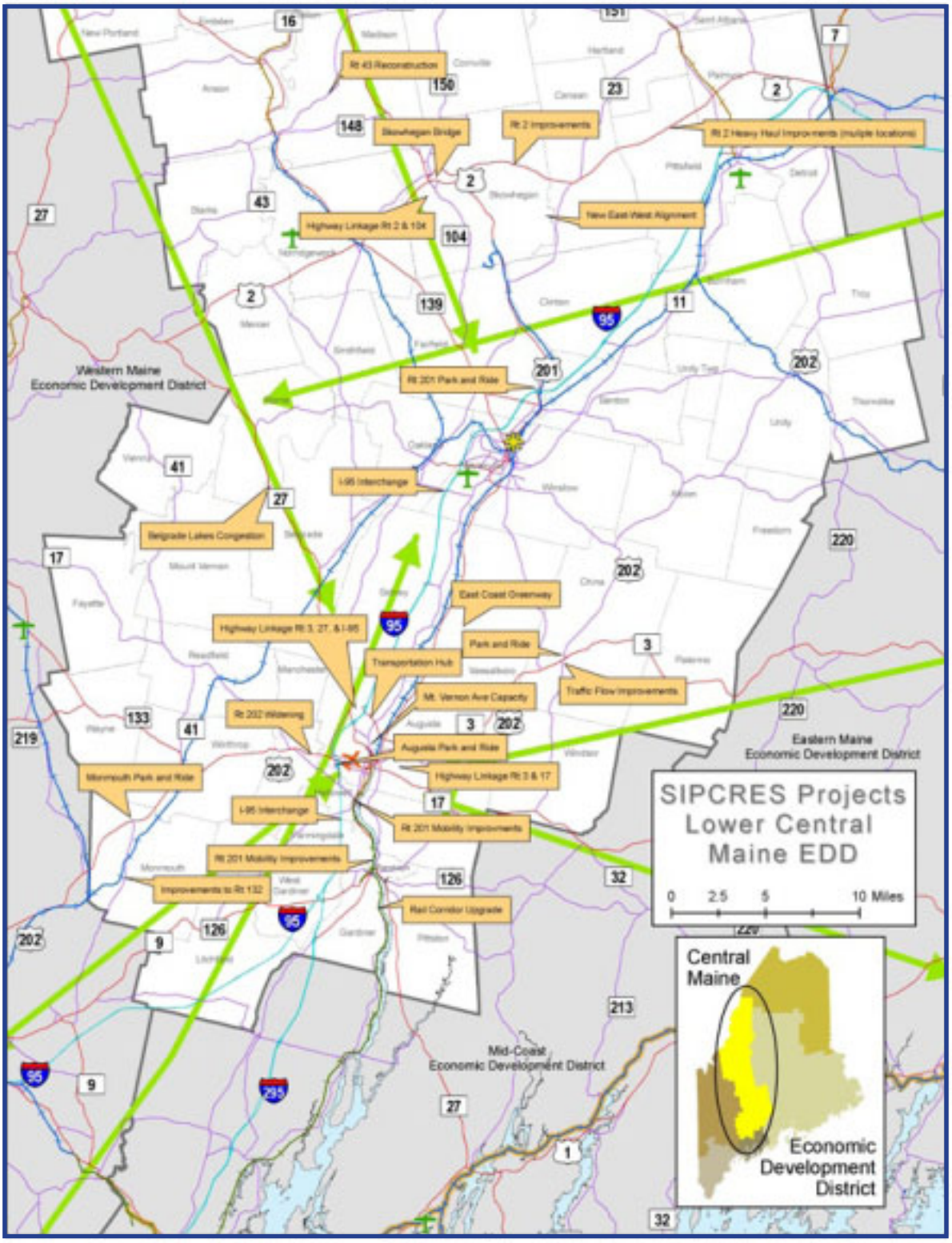

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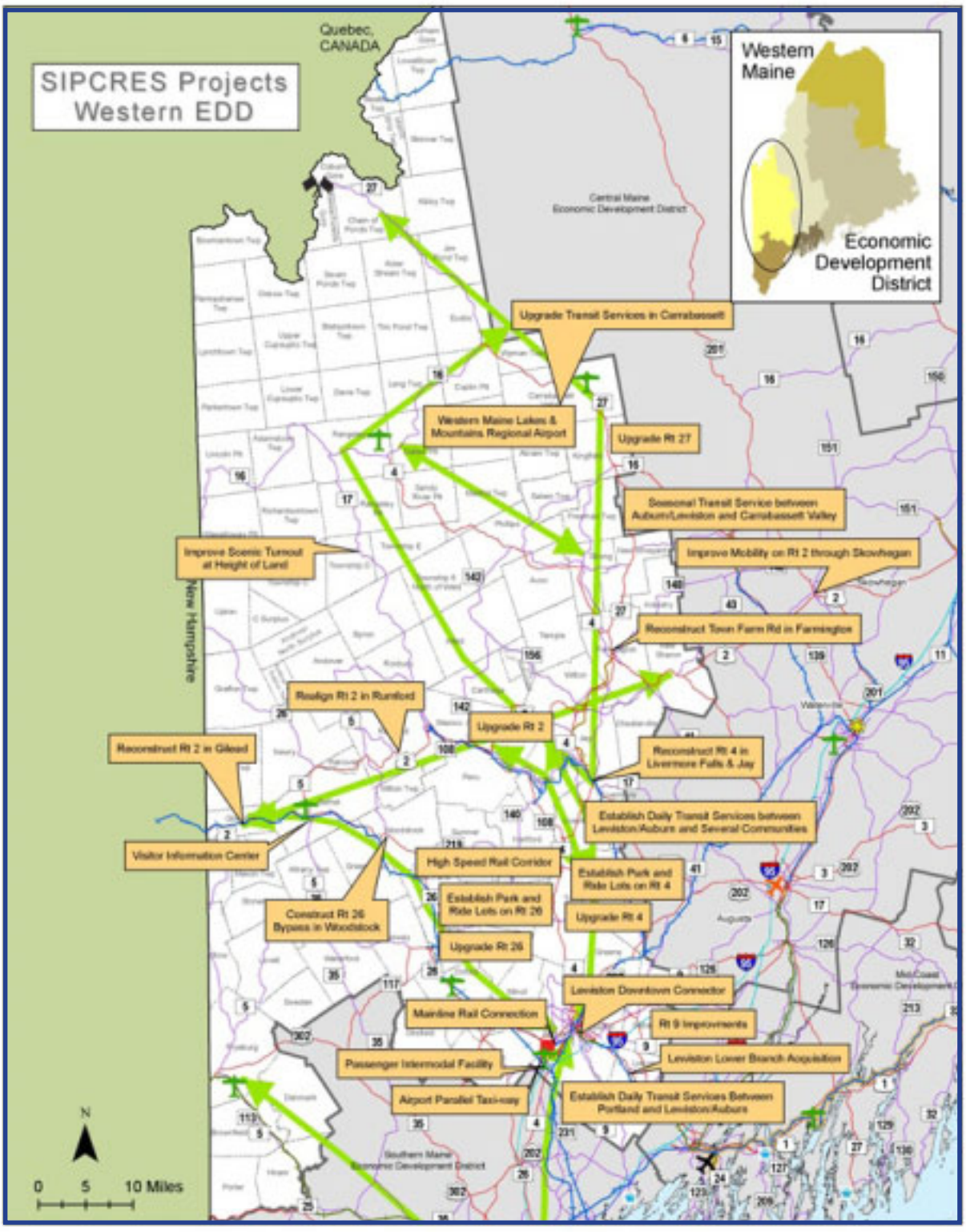

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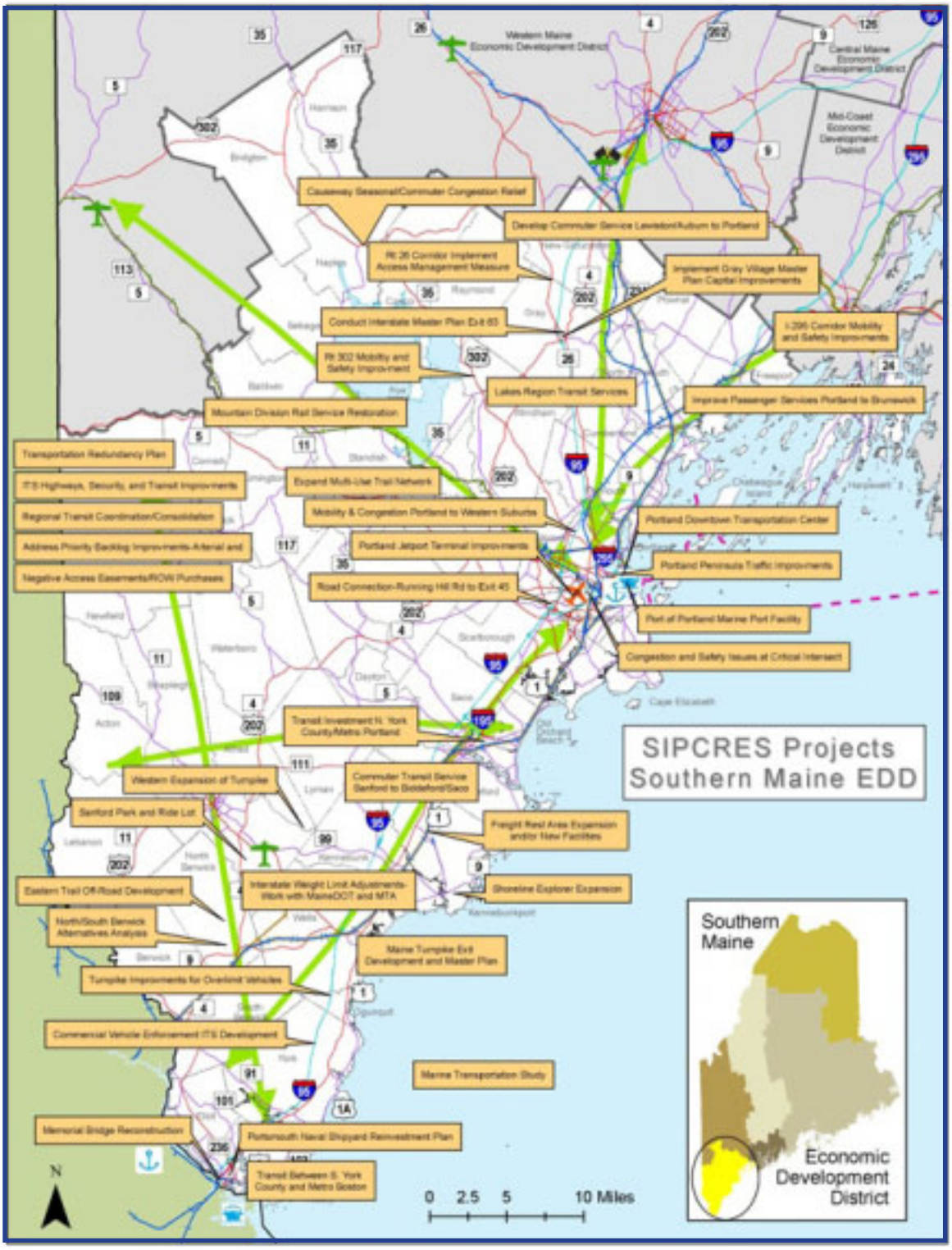

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