



GROWING AREA EI

Great Head, Bar Harbor to Schoodic Point, Winter Harbor

Triennial Report for 2008-2010

Report Date: 1-30-2012

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APPROVAL

Division Director:

Kohl Kanwit

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1/30/12

Print name

signature

Date: _____



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Figure 1. Growing Area EI

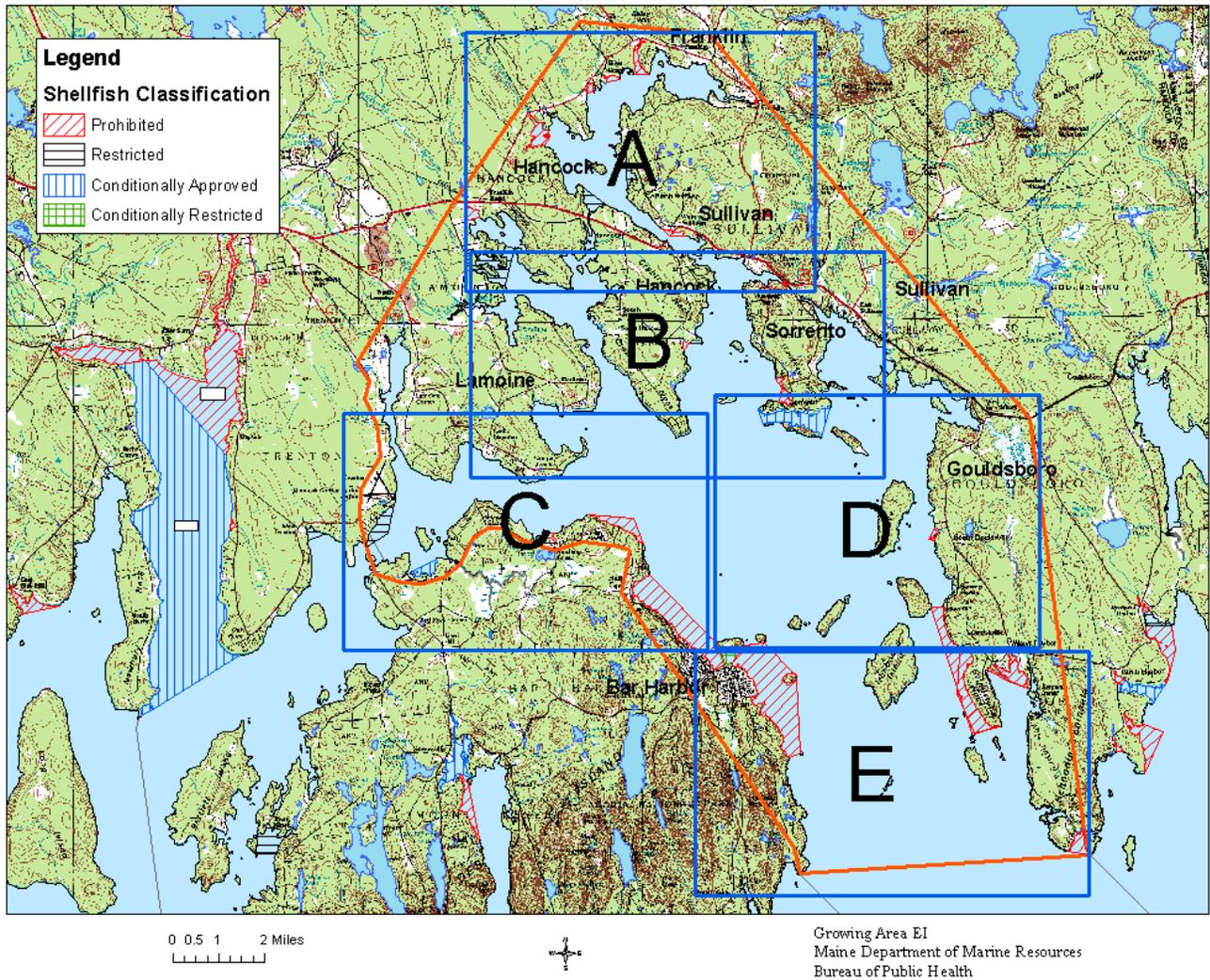




Figure 2. Growing Area EI, with Active Water Stations (A)

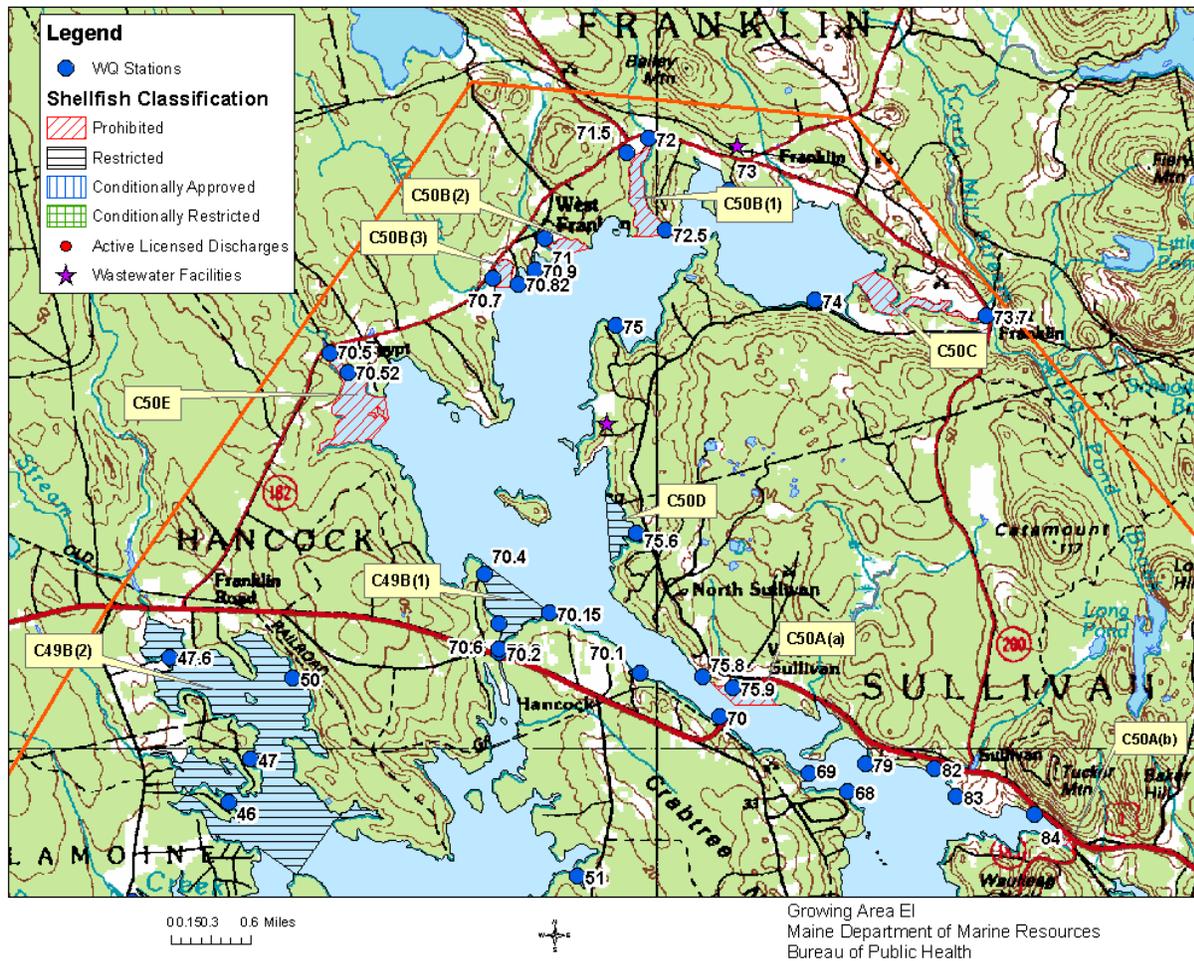




Figure 3. Growing Area EI, with Active Water Stations (B)





Figure 4. Growing Area EI, with Active Water Stations (C)

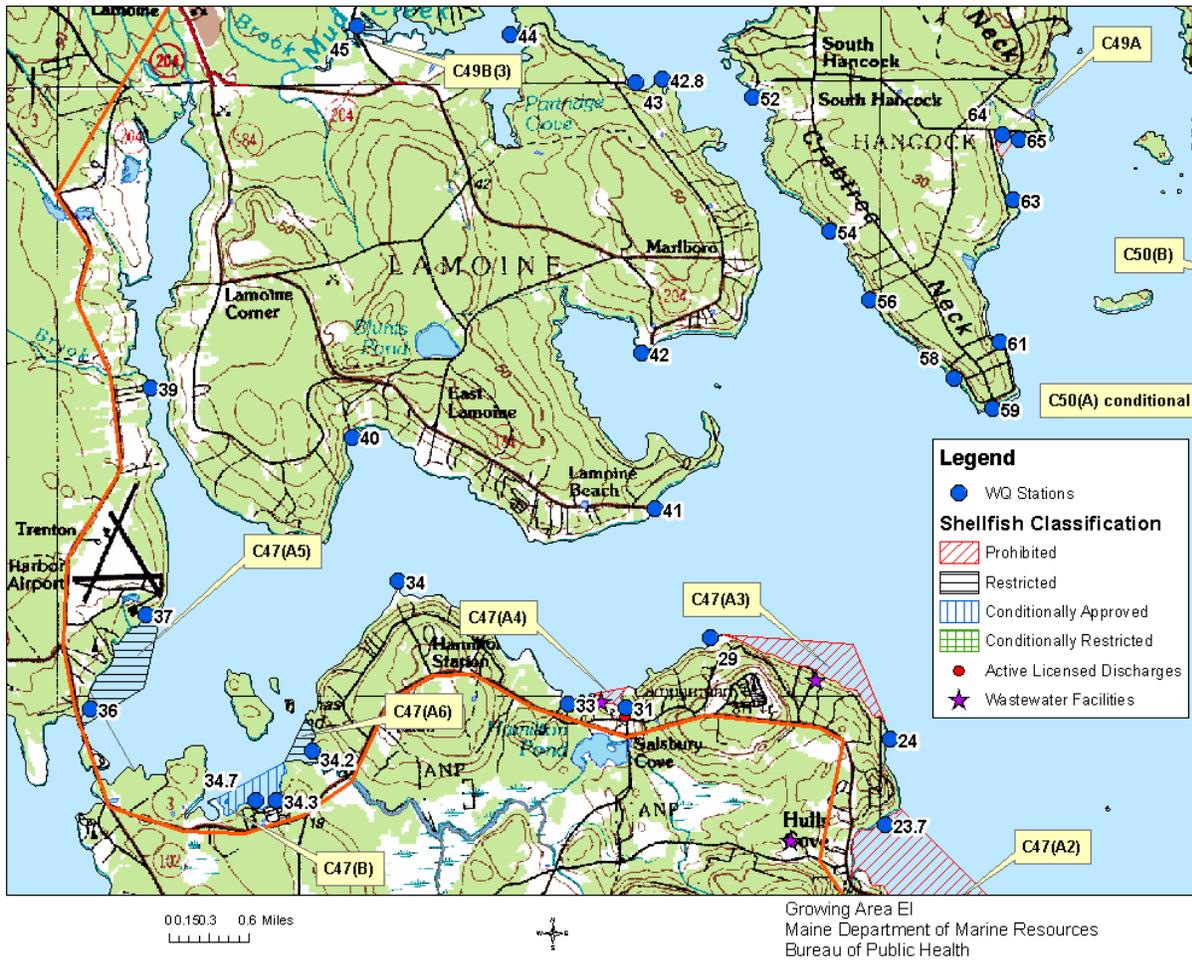




Figure 5. Growing Area EI, with Active Water Stations (D)

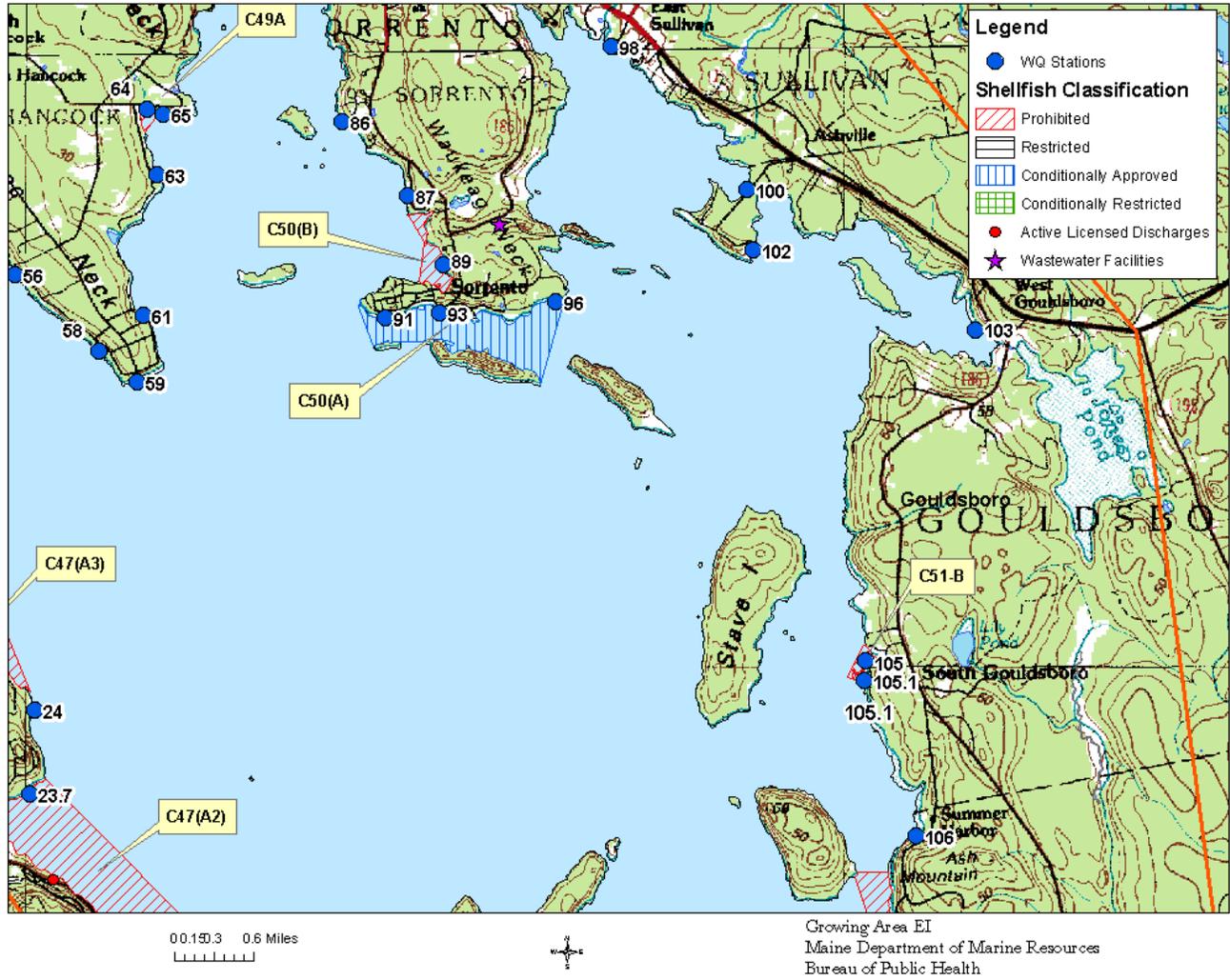
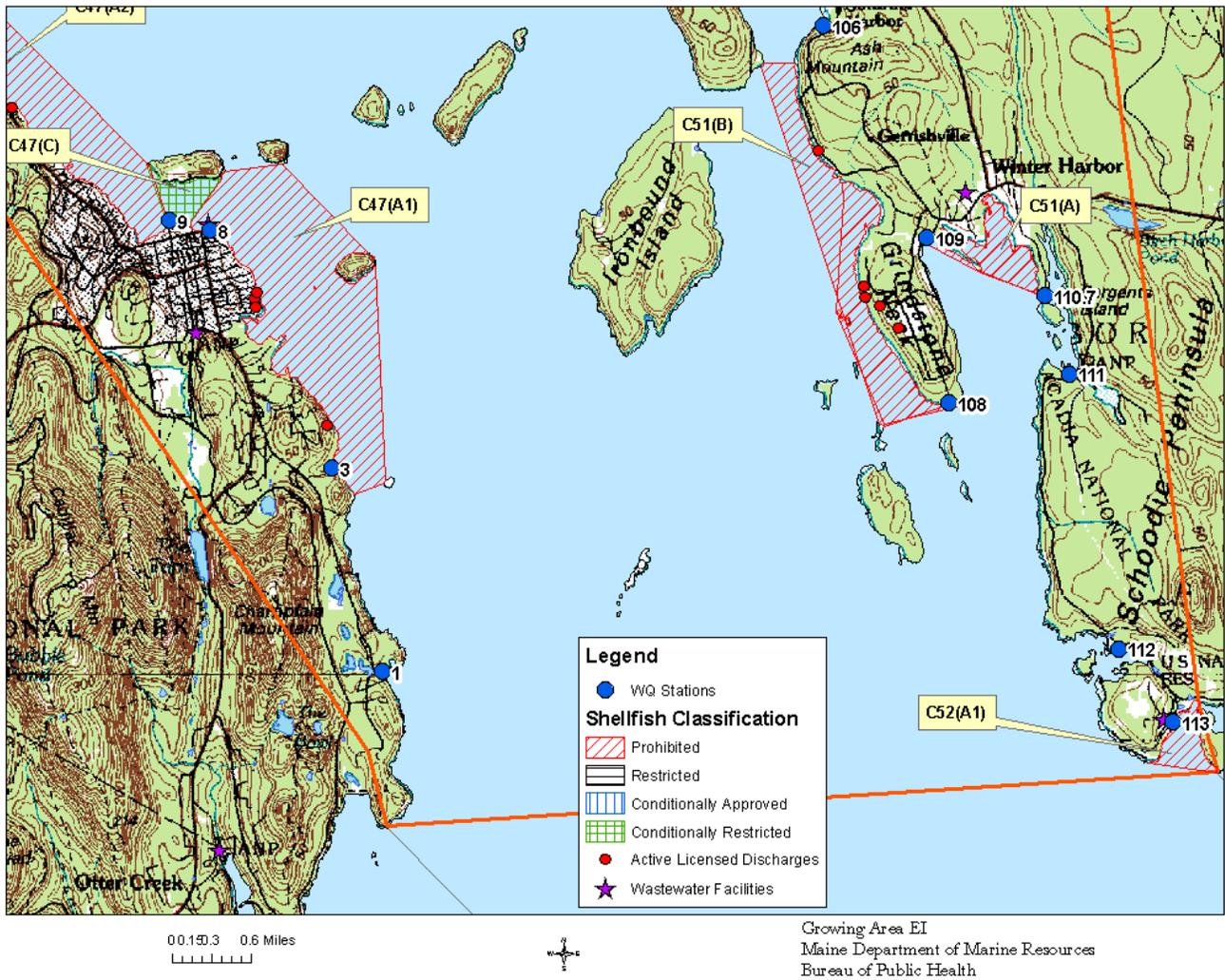




Figure 6. Growing Area EI, with Active Water Stations (E)





Executive Summary

This is a triennial report for growing area EI written in compliance with the requirements of the 2009 Model Ordinance and the National Shellfish Sanitation Program.

Area EI has seventeen prohibited areas, five restricted areas, two conditionally approved areas and one conditionally restricted area. All approved, conditionally approved, conditionally restricted and restricted stations met their NSSP classification standard in 2010 with the exception of EI 47.6, which was re-classified from approved to restricted on January 4, 2011. All active stations were sampled 6 times following the systematic random sampling (SRS) schedule and conditional stations were sampled the required number of times while in the open status. During 2010, classification changes included; one (1) station reclassified from approved to restricted (embedded in a restricted area), one (1) station reclassified from approved to restricted (did not meet current classification, was embedded in a new restricted area and water quality did not meet the approved standard at the area boundary) and one (1) station was reclassified from approved to restricted due to the impact of intermittent bacterial pollution. Licensed overboard discharges (2) were removed from Point Lookout and Cromwell Cove, Bar Harbor.

The next triennial report is due in 2013; the next sanitary survey report is due in 2019.

Growing Area Description

Growing area EI is located in the mid section of Hancock County and is centered on Frenchman and Taunton Bays (Figures 1-6). The shoreline included in this report stretches from Great Head, Bar Harbor to Schoodic Point, Winter Harbor. The growing area encompasses 176 square miles, and includes the near sub-tidal waters, inter-tidal flats and a zone of shore property that extends inland to a defined upland boundary that follows the major roadways surrounding the bays. Surrounding towns include Bar Harbor, Trenton, Lamoine, Hancock, Franklin, Sullivan, Sorrento, Gouldsboro and Winter Harbor. The villages of Bar Harbor (population, 5045) and Winter Harbor (population, 979) have the largest population concentrations (2007-2008 Maine Municipal Directories). Many homes are seasonal (June-September). Development along these shores is spotty with clusters of homes separated by undeveloped land. Closures are based on wastewater treatment facility outfalls in Bar Harbor and Winter Harbor; clusters of residential licensed overboard discharges in Bar Harbor, Sorrento and Winter Harbor, seasonal boat moorings and sample stations affected by non-point pollution without identifiable sources. There are municipal wastewater treatment facilities in Bar Harbor, Winter Harbor and at the National Park Facility, Schoodic Point. Four licensed outfalls that include process water, wet lab outfalls or snow dump sites are in the Bar Harbor area and Taunton Bay. There are twelve active licensed overboard discharges located along the Frenchman Bay shores of Bar Harbor (6), Sorrento village (cluster system) and on Grindstone Neck, Winter Harbor (5). Conditionally classified areas are managed on seasonal boat moorings in Bar Harbor and Sorrento and the seasonal habitation of a campground near Thomas Island. There are boat pump-out facilities at the Frenchman Bay Boat Company, West Street, Bar Harbor and at Winter Harbor Marine, Sargent Street, Winter Harbor. There are ten aquaculture sites and one wet storage permit in this growing area. There are sixteen (16) agricultural operations in growing area EI that mostly consist of small "home farms" with <10 animals (cows, horses); however, one of the farms is a small commercial farm with approximately 100 goats. Portions of the growing area continue to exhibit poor water quality or remain potential pollution threats due to the presence of older, in-ground septic



systems. The upland land cover is predominately deciduous, some evergreens, and wetland forest with minimal development. Fresh water influence along these shores is predominately from numerous brooks and small streams throughout the growing area. There are no large rivers or lakes impacting the area. Areas most likely to contain significant populations of soft and hard shell clams and mussels are: Bar Island bar, Jordan River, Skillings River, Taunton Bay, Flanders Bay and South Gouldsboro.

Current Classification(s)

At the end of the 2010 review year, shellfish growing area EI had areas classified as:

Approved

47 stations (EI 1, 33, 34, 36, 39, 40, 41, 42, 43, 44, 51, 52, 54, 56, 58, 59, 61, 63, 68, 69, 70, 70.1, 70.2, 70.82, 70.9, 72.5, 73, 74, 75, 79, 82, 83, 84, 86, 87, 98, 100, 102, 103, 105.1, 106, 108, 109, 110, 110.7, 111, 112)

Conditionally Approved

Area 47, Bar Harbor to Hulls Cove, Salsbury Cove, Thomas Bay and Trenton Airport (Bar Harbor, Gouldsboro, Trenton)

B, Thomas Bay, Bar Harbor; seasonal campground; open status from October 1 to April 30; 2 stations (EI 34.3, 34.7)

Area 50, Sorrento (Sorrento)

1A, Sorrento (Sorrento Harbor-marina); open status from October 1 to April 30; seasonal marina; 3 stations (EI 91, 93, 96)

Restricted

Area 47, Bar Harbor to Hulls Cove, Salsbury Cove, Thomas Bay and Trenton Airport (Bar Harbor, Gouldsboro, Trenton)

A5, Trenton Airport; water quality does not meet the approved standard; 1 site (EI 37)

A6, Thomas Bay; water quality does not meet the approved standard; new site (EI 34.2)

Area 49B, Skillings River, (Lamoine, Hancock)

1. Carrying Place; water quality does not meet the approved standard; 1 site (EI 70.3)

3. Eagle Point; water quality does not meet the approved standard; 4 sites (EI 46, 47, 47.6, 50)

4. Mud Creek; water quality does not meet the approved standard; 1 site (EI 45)

Area 50D, Evergreen Point (Sullivan); water quality does not meet the approved standard; 1 site (EI 75.6)

Conditionally Restricted

Area 47, Bar Harbor to Hulls Cove, Salsbury Cove, Thomas Bay and Trenton Airport (Bar Harbor, Gouldsboro, Trenton)

C, Bar Harbor (Bar Island Bar); open to depuration harvesting from March 1 to May 31 with no CSO activity at the Rodick Street or West Street locations within 14 days of harvest, or >



10 live aboard boats at Bar Harbor mooring field; 1 stations (EI 9)

Prohibited

Area 47, Bar Harbor to Hulls Cove, Salsbury Cove, Thomas Bay and Trenton Airport (Bar Harbor, Gouldsboro, Trenton)

A1, Bar Harbor to Thrumcap; licensed overboard discharges, water quality does not meet the approved standard; 2 stations (EI 3, 8)

A2, Bar Harbor to Hulls Cove; licensed overboard discharges, Hulls Cove Treatment Plant; new station (EI 23.7)

A3, Sand Point to Levi Point; licensed overboard discharges, Degregoire Park Treatment Plant; 1 station (EI 29)

A4, Salsbury Cove; licensed overboard discharges; 2 sites (EI 31, 33)

Area 49A, Jellison Cove (Hancock); water quality does not meet the approved standard; 1 station (EI 64)

Area 50, Sorrento (Sorrento)

1B, Back Cove; licensed overboard discharges; 2 stations (EI 87, 89)

Area 50A, US 1 Bridge and Long Cove (Sullivan)

A, US Route 1 Bridge; water quality does not meet the approved standard; 2 stations (EI 75.8, 75.9)

B, Long Cove; water quality does not meet the approved standard; 1 station (EI 84)

Area 50B, Springer, Mill and West Brooks (West Franklin); water quality does not meet the approved standard; 3 sites (EI 70.7, 71, 72)

Area 50C, Johnny's Brook and Card Mill Stream (Franklin); water quality does not meet the approved standard; 1 site (EI 73.7)

Area 50E, Egypt Bay (Hancock, Franklin); water quality does not meet the approved standard; 2 sites (EI 70.5, 70.52)

Area 51, Winter Harbor and Grindstone Neck (Winter Harbor)

A. Winter Harbor; Winter Harbor Treatment Plant; no sample site within closed area.

B. Grindstone Neck; licensed overboard discharges; no sample site within closed area.

Area 51C, Bunker Cove (Gouldsboro); water quality does not meet the approved standard; 1 site (EI 105)

Area 52, Schoodic Point to Corea (Winter Harbor-Gouldsboro,

A1, Arey Cove (Winter Harbor); Schoodic Education Center Treatment Plant; 1 stations (EI 113)

There are eight new stations in growing area EI (EI 23.7, 24, 34.2, 42.8, 65, 70.15, 70.4 and 71.5). These stations have less than 30 data points and were not evaluated against a classification standard.

Please visit the DMR website to view legal notices:

http://www.maine.gov/dmr/rm/public_health/closures/closedarea.htm#



Activity during Review Period

April 17, 2008- Area No. 47, Bar Harbor to Hulls Cove, Salisbury Cove, Thomas Bay and Trenton Airport (Bar Harbor, Gouldsboro, Trenton); The amendment classified the area around the seaplane ramp at the Trenton Airport as restricted due to water quality not meeting the approved standard at EI 37.

April 23, 2008- Area No. 49-B, Skillings River (part 1) (Lamoine-Hancock); The amendment repealed the restricted area between Mosely Point, Youngs Point and Seal Point in the Skillings River, because the water quality met approved criteria; and expanded the restricted area at Eagle Point to include the shores of the Skillings River between Partridge Point and the northeast tip of Eagle Point, due to water quality not meeting the approved standard at EI 46 (Martin Cove).

February 19, 2009- Area No. 49-B, Skillings River (part 1) (Lamoine-Hancock); The amendment reclassified the area at Carrying Place, Hancock from prohibited to restricted and increased the size of the restricted area, due to water quality exceeding approved criteria at the approved/prohibited boundary line (station 70.6). New boundary stations were created at EI 70.15 and EI 70.4.

April 29, 2010- The closures in Area No. 50-B, Mill Brook, Springer Creek and West Brook, West Franklin, Area No. 50-C, Johnny's Brook and Card Mill Stream (Franklin), Area No. 50-D, Evergreen Point (Sullivan) and Area No. 50-E, Egypt Bay (Hancock - Franklin) were combined into a single regulation. The amendment changed the title of the rule for Area No. 50-B and increased the size of the prohibited area at Johnny's Brook and Card Mill Stream to adequately dilute elevated bacterial levels at EI 73.7. The new boundary station is EI 74.

June 22, 2010- Area No. 49-B, Skillings River (part 2) (Lamoine-Hancock); The amendment reduced the size of the restricted area due to water quality meeting the approved standard at station EI 47 (Eagle Point).

Conditionally Managed Areas

Area No. 47(part B), Thomas Island, is a seasonal conditionally approved area based on occupancy of an RV campground and requires six (6) samples during the open status. The business season is June through September. Samples were collected 7 times from each of the water quality monitoring sites during the open status (1/4, 3/23, 4/6, 4/26, 10/5, 11/2, 12/8). The double sampling in April was necessary due to sea ice cover over the area in February preventing sampling. The campground was inspected on May 4 and June 2, 2010, near the harvest area closure date of April 30 and confirmed that the campground had not opened for business in the spring. Inspections were completed on September 21, 2010, previous to the harvest area opening date of October 1, to confirm that the campground was closed for the winter. On September 23, 2010 it was confirmed that water quality met the standard for approved classification during the open period.

Area No. 47(part C), Bar Island bar, is a seasonal conditionally restricted area based on the lack of combined sewer overflow activity at the Rodick Street and West Street outfalls in the Bar Harbor Wastewater Plant collection system for 14 days prior to depuration harvesting, and less than ten live aboard boats off the Bar Harbor pier during the period from March 1 thru May 31 annually. If a request for depuration is made, the combined sewer overflow records for Rodick Street and West Street are reviewed to see if there has been any activity. The area is required to be sampled monthly during the open status. Samples were collected 3 times from each of the water quality monitoring sites during the open status (3/23, 4/6, 5/4). Lack of boating activity in the mooring field during the open status was confirmed on February 2, March 23, April 6, May 4 and June 2, 2010. Water quality



meets the standard for restricted classification during the open status. There was no depuration harvesting activity from the area in 2010.

No. 50 (part A), Sorrento, is a marina conditionally approved area requiring three samples during the open status. Samples were collected 7 times from each of the water quality monitoring sites during the open status (1/4, 2/2, 3/23, 4/6, 10/5, 11/2, 12/7). The mooring areas peak occupancy period is from Memorial Day thru Labor Day. The harbor master confirmed the lack of live-aboards most of the time with random transient boaters using moorings in the peak cruising months. Few boats are occupied after September or before May. The marina area was inspected on April 6, 2010, previous to the harvest area closure date of April 30 and confirmed that there were fewer than 10 boats. An inspection was completed on September 29, 2010, previous to the harvest area opening date of October 1, to confirm that there were fewer than 10 boats with live-aboard crews. Water quality meets the standard for approved classification during the open status.

Compliance inspections are done during scheduled sampling of the conditional areas during both open and closed status. More detailed annual reviews are discussed in Appendices A, B and C.

Documentation of Pollution Sources

The following sections include information on pollution sources which do or may impact water quality in growing area EI. Pollution sources that are reviewed in this section include domestic waste, including both private inground systems and over board discharges (OBDs), marinas and mooring fields, stormwater and pollution from non-point sources (streams), farms and other agricultural activities, industrial pollution, domestic animals and wildlife areas, and recreational areas.

Evaluation of New Pollution Sources

June 25, 2010- A malfunctioning septic system was identified on Route 3 (Trenton) that drained into the restricted area near EI 36 and 37. Trenton town officials, Maine DEP and Maine DHHS have been informed of the problem. The property is on the Small Community Grant Program to be repaired. No repairs have been done at present.

Re-Evaluation of Existing Pollution Sources

Domestic Waste

There are eleven (11) over board discharges (OBDs) that discharge their treated effluent into the waters of the growing area EI. Two (2) licensed overboard discharges (Lic. No. 2304, 3251) have been removed over the past three review years.

An overboard discharge (OBD) is the discharge of wastewater from residential, commercial, and publicly owned facilities to Maine's streams, rivers lakes, and the ocean. Commercial and residential discharges of sanitary waste have been regulated since the mid-1970's when most direct discharges of untreated waste were banned. Between 1974 and 1987 most of the "straight pipes" were connected to publicly-owned treatment works or replaced with standard septic systems. Overboard discharge treatment systems were installed for those facilities that were unable to connect to publicly-owned treatment works or unable to install a septic system because of poor soil conditions or small lot sizes.



All overboard discharge systems include a process to clarify the wastewater and disinfect it prior to discharge. The treated and disinfected water is discharged from the disinfection unit to below the low water mark of the receiving waterbody (the ocean, a river, or a stream) via an outfall pipe.

OBDs are licensed and inspected by the Maine Department of Environmental Protection. If an OBD is not properly maintained, or if the OBD malfunctions, it has the potential to directly discharge untreated wastewater to the shore; therefore, preventative closures are implemented surrounding every OBD located in growing area EI (Table 1). The size of each closure is determined based on a dilution, using on the permitted flow rate of the OBD (in gallons per day, GPD), and the depth of the receiving water that each OBD discharges to; the fecal concentration used for this dilution calculation is 1.4×10^5 FC /100 ml. All current closures are of adequate size to protect public health.

Table 1. Active Licensed Overboard Discharges

DEP ID	Town	Licensed Flow GPD	Impact	Treatment Type	Receiving Waterbody	Dilution Acres	Receiving Water Closure Acres
2304	Bar Harbor		Removed		Hulls Cove		
3251	Bar Harbor		Removed		Cromwell Cove		
3227	Bar Harbor	300	AD	M	Hulls Cove	0.7	Area 47 (part A2) = 727.7 acres
2371	Bar Harbor	850	AD	S		1.9	
1507	Bar Harbor	600	AD	S	Salsbury Cove	4.4	Area 47 (part A4) = 13.8 acres
6263	Bar Harbor	300	AD	S	Frenchman Bay	0.1	Area No. 47 (part A1) = 1105.9 acres
4010	Bar Harbor	800	AD	S		0.7	
6292	Bar Harbor	400	AD	M		0.4	
1666	Winter Harbor	360	AD	M	Grindstone Neck	1.6	Area No. 51 (part B) = 501.8 acres
2436	Winter Harbor	500	AD	M		1.1	
2777	Winter Harbor	300	AD	S		0.7	
2773	Winter Harbor	500	AD	S		1.1	
6907	Winter Harbor	300	AD	S		0.4	

(Treatment Type: S-sand filter M-mechanical)

Table 2 lists potential domestic pollution problems other than licensed overboard discharges that were identified during the last sanitary survey in 2007. A review of these areas determined that they are in prohibited or restricted classified areas or have been determined to not be a pollution issue that impacts shellfish harvesting areas.

Table 2. Pollution problems associated with domestic waste

SLS_ID	Area	Lot	PSource	Impact	Description/Classification
EI00042.00	West St, Bar Harbor	Business, dock\fuel, >500g tank	OT	PD	in Bar Harbor STP prohibited area (EI 8)



SLS ID	Area	Lot	PSource	Impact	Description/Classification
EI00107.00	Parker Point, Bar Harbor	Seasonal cottage	CP	PD	Cesspool, no pipe to shore, in Bar Harbor STP prohibited area (EI 27)
EI00226.70	Blum Point, Bar Harbor	Horse boarding business, barns, pastures adjacent to stream and cove; x25 horses	AF	PD	Area classed restricted due to intermittent impacts on cove (EI 34.2)
EI00255.00	Mt Desert Narrows, Trenton	Seasonal camp, sink drain	SD	PI	No identified impact to shore, in restricted area due to other problems (EI 37)
EI00264.00	Jorden Rv, Trenton	Seasonal camp	OH	PI	OH back from water; No identified impact to shore, in restricted area due to other problem (EI 37)
EI00265.00	Jorden Rv, Trenton	Seasonal camp	OH	PI	OH back from water; No identified impact to shore, in restricted area due to other problems (EI 37)
EI00267.00	Jorden Rv, Trenton	Airport, terminals/hangers/fuel, > 500g tank	OT	PI	No identified impact to shore, in restricted area due to other problems (EI 37)
EI00328.00	Old Pt-Lamoine	Seasonal camp	SD	PI	No identified impact to shore, in approved area
EI00498.00	Marlboro Beach, Lamoine	Seasonal camp	CP	PI	Cess pool, no pipes seen, far from water, No identified impact to shore, in approved area
EI00536.00	Skillings Rv, Lamoine	Pastures and animals; pasture near shore, 7 animals (cows, horses)	AF	PI	No identified impact to shore, in approved area (EI 42.8);
EI00560.10	Partridge Cv, Lamoine	Commercial farm, 100x goats, geese, dog, horse	AF	PI	No identified impact to shore, in approved area (EI 44)
EI00594.00	Marsh Creek, Lamoine	Horses x3 and pastures	AF	PI	Question impacts to shore, in restricted area (EI 46)
EI00611.00	Eagle Point, Lamoine	Horses x10, cattle x 4, barn, pastures	AF	PI	Question impacts to shore, in restricted area (EI 46)
EI00835.00	Jellison Cove, Hancock	Vacant camp	OH	PI	No identified impact to shore, in prohibited area (EI 64)
EI00849.00	Jellison Cove, Hancock	Seasonal camp, IG near seawall, no pipes identified on beach, no seepage	MS	PD	No identified impact to shore, in prohibited area (EI 65)
EI00875.00	Sullivan Hbr, Hancock	Seasonal small camps and travel trailer	OH	PI	No identified impact to shore, in approved area



SLS ID	Area	Lot	PSource	Impact	Description/Classification
EI01009.00	Butler Pt, Franklin	House IG S lawn, ? into wet area	IG	PI	
EI01025.00	Mill Brook, Franklin	Seasonal camp, cess pool in R front of house	CP	PI	Cess pool has been replaced with in-ground system, in prohibited area (EI 71)
EI01025.00	Mill Brook, Franklin	Seasonal camp	SD	PI	No identified impact to shore, in prohibited area (EI 71)
EI01038.30	Springer Creek, Franklin	Auto business, question of failed IG system	IG	PD	No identified impact to shore, in prohibited area (EI 72)
EI01038.40	Springer, Franklin Creek	Business, history of failed IG system	IG	AD	Impacts shore, long standing problem, town-DEP aware, in prohibited area (EI 72)
EI01265.10	Sullivan Hbr, Sullivan	Seasonal camp, question of failed IG	IG	PI	LPI reviewed, no problem, no identified impact to shore, in approved area (EI 82)
EI01296.20	Long Cv, Sorrento	Seasonal camp	OH	PI	No identified impact to shore, in approved area
EI01305.00	Ingalls Is, Sorrento	Seasonal camp	OH	PI	No identified impact to shore, in approved area
EI01344.00	West Cv, Sorrento	House	IG	PI	No identified impact to shore, in prohibited area for OBD cluster system (EI 90)
EI01467.00	Head Long Cv, Sorrento	White trailer, vacant	UK	PI	Trailer is removed, No identified impact to shore, in approved area
EI01552.00	Jones Cove, Gouldsboro	House with IG and seasonal cabin with OH on shore	OH	PI	No identified impact to shore, in approved area
EI01631.00	Bunkers Cove, Gouldsboro	Lobster business, several buildings, boat fuel, > 500g fuel tank on pier	OT	PD	No identified impact to shore, in prohibited area (EI 105)
EI01639.00	Bunkers Cove, Gouldsboro	Dog pen, horses x6, horse pasture uphill of shore	AF	PI	No identified impact to shore, margin of prohibited area (EI 105.1)
EI01766.00	Inner Harbor, Winter Harbor	Lobster business, wharf, bait shed, lg fuel storage tank, > 500g fuel tank	OT	PD	No identified impact to shore, in prohibited area for the Winter Harbor STP

IG-In Ground System OH- Outhouse MS- Malfunctioning System SD-Sink Drain CP-Cess Pool AF-Animal Farm OT- Fuel Tank

Municipal WWTP

Bar Harbor, Main Plant-

The plant is a secondary treatment system (extended aeration activated sludge) that discharges into Cromwell Cove (Class SB-1). Influent is domestic and commercial. There is no industrial flow to the



facility. Licensed monthly average flow is 2.0 million gallons per day (MGD). The plant can accept up to 4000 GPD of liquid wastewater from pump-out contractors. Disinfection is with sodium hypochloride and de-chlorination with sodium bisulfate. The plant has standby power that allows operation of the entire treatment process (diesel powered generators). Regular maintenance is done with daily checks/repairs. The plant is licensed to chlorinate and de-chlorinate between May 15 and September 30. Three of the six aeration basins are taken off line in the winter due to a significant decrease in influent flows. There is 17.9 miles of collection system piping with seven (7) pump stations. Effluent is discharged through a 150' 18" plastic pipe into the ocean tidewaters of Compass Harbor and also through a 1340' 24" pipe into Cromwell Cove. The end of the pipe is submerged ten (10) feet at low water. Sludge is de-watered and sent to a composting facility off site. The regulation Prohibited closure (Area No. 47 (part A1), Bar Harbor to Thrumcap) size exceeds the computed effluent dilution zone (dilution calculation= 546 acres / closure size= 1105 acres) and is adequate to protect public health. A review of the monthly DMR data for the period January 2007 – January 2010 indicates the facilities has been in compliance with the flow and fecal bacterial limits 100% of the time. May 26, 2010 – The Town submitted a timely and complete application to the Department to renew the MEPDES permit/WDL for the discharge from its waste water treatment facility. (MeDEP permit July 29, 2010)

Eddy Brook, Cromwell Cove, Main Street, Rodick Street and Hulls Cove pump stations have wet weather combined sewer overflows (CSO). CSO discharges are likely with heavy rainfall combined with increased summer seasonal population. Historical yearly totaled discharge frequencies and volumes are listed below (Table 2).

Table 3. Combined Sewer Overflow Discharges

Year	2005	2006	2007	2008	2009	2010
No. of events	22	18	10	27	27	15
Total Gallons for Year	13,661,958	5,102,820	8,719,438	12,601,889	11,935,337	6,885,173
Average Discharge Volumes	620,998	283,490	871,944	466,737	442,050	459,012

Bar Harbor, Hulls Cove-

The plant is a secondary treatment (extended aeration activated sludge) system that discharges into Hulls Cove (Class SB). Influent is domestic and commercial. There is no industrial flow to the facility. Licensed monthly average flow is 0.15 million gallons per day (MGD). The facility can not accept wastewater from pump-out contractors. Disinfection is with sodium hypo-chloride and de-chlorination with sodium bisulfate. The plant has standby power that allows operation of the entire treatment process (diesel powered generators). Regular maintenance is done with daily checks/repairs. The plant is licensed to chlorinate and de-chlorinate between May 15 and September 30. There is 1.2 miles of collection system piping with one (1) pump station. This pump station (Route 3/Beaver Dam Rd) has a wet weather combined sewer overflow (CSO) but there is a plan to remove it. Effluent is discharged through a 1240' 8" plastic pipe into the ocean tidewaters of Hulls Cove. The end of the pipe is submerged ten (10) feet at low water. Sludge is composted after mixing with leaves and other vegetation or sent to the Main Plant for processing. The regulation Prohibited closure (Area No. 47 (part A2), Bar Harbor to Hulls Cove) size exceeds the computed effluent dilution zone (dilution



calculation = 236 acres / closure size = 728 acres) and is adequate to protect public health. A review of the monthly DMR data for the period January 2007 – December 2009 indicates the facilities has been in compliance with the flow and fecal bacterial limits 100% of the time. May 26, 2010 – The Town submitted a timely and complete application to the Department to renew the MEPDES permit/WDL for the discharge from its waste water treatment facility. (MeDEP permit July 29, 2010)

April 2010- The Town of Bar Harbor violated Maine's Protection and Improvement of Waters law by discharging untreated wastewater to Frenchman Bay. Specifically, the town's Hulls Cove Pump Station overflowed to Frenchman Bay on two occasions due to failure of the pumps during high flow events. Based on pumping records, approximately 75,000 gallons of untreated wastewater was discharged on each occasion. To resolve the violations, Bar Harbor agreed to submit plans and a schedule for temporary and permanent upgrades or replacement of the existing alarm system to prevent or minimize overflows from the Hulls Cove Pump Station, and paid \$1,175 as a civil monetary penalty.

Bar Harbor, DeGregoire Park-

The plant is a secondary treatment (extended aeration activated sludge package treatment) system that discharges into Frenchman Bay (Class SB). Influent is domestic. There is no industrial flow to the facility. Licensed monthly average flow is 0.012 million gallons per day (MGD). The facility can not accept wastewater from pump-out contractors. Disinfection is with sodium hypo-chloride and de-chlorination with sodium bisulfate. The plant is licensed to chlorinate and de-chlorinate between May 15 and September 30. The plant has standby power that allows operation of the entire treatment process (diesel powered generators). Regular maintenance is done with daily checks/repairs. Sludge is sent to the Main Plant for processing. There is 0.78 miles of collection system piping with one (1) pump station. There are no combined sewer overflows. The pump station has an emergency bypass in the event of electrical or mechanical failure. Effluent is discharged through a 240' 6" plastic pipe into the ocean tidewaters of Frenchman Bay at Parker Point. The end of the pipe is submerged three (3) feet at low water. The regulation Prohibited closure (Area No. 47 (part A3), Sand Point to Levi Point) size exceeds the computed effluent dilution zone (dilution calculation = 31 acres / closure size 132 acres) and is adequate to protect public health. A review of the monthly DMR data for the period January 2007 – December 2009 indicates the facilities has been in compliance with the flow and fecal bacterial limits 100% of the time. May 26, 2010 – The Town submitted a timely and complete application to the Department to renew the MEPDES permit/WDL for the discharge from its waste water treatment facility. (MeDEP permit July 28, 2010)

Sorrento-

The system is a cluster of individual collection tanks and sand filters with a common outfall into Back Cove, Sorrento. There are ten (10) houses on the system and six (6) of these are seasonal. Disinfection is with chlorine tablets. Permit flow limit is .003 MGD. The facility has experienced ongoing problems with the system due to intermittent low flows. DEP has been working with licensee to pursue possibility of removing this discharge and constructing a land treatment system in place. The regulation Prohibited closure (Area No. 50 (part B), Back Cove) size exceeds the computed effluent dilution zone (dilution calculation = 11 acres / closure size = 37 acres) and is adequate to protect public health.

Agvest, Inc-

The system is a lagoon system with land application of blueberry and cranberry process water. There is no outfall to marine waters. A review of the monthly DMR data for the period January 2007 –



December 2009 indicates the facilities has been in compliance with the flow and fecal bacterial limits 100% of the time. September 23, 1998 – The Department issued and Administrative Consent Agreement to address noncompliance (exceeded nitrate-nitrogen limits) at the Agvest facility. September 1, 2009 – The Department accepted a complete and timely application for license renewal from Agvest, Incorporated. (MeDEP permit December 16, 2009)

Winter Harbor-

The plant is a secondary treatment-reed bed system that discharges into Henry Cove (Class SB). Influent is domestic and commercial. There is no industrial flow to the facility. The plant can accept up to 1250 GPD of liquid wastewater from pump-out contractors. The plant is licensed to chlorinate and de-chlorinate between May 10 and September 30, however the reed bed treatment process is so complete that the license limits for nutrients and bacteria can be met without chlorination. The plant has standby power that allows operation of the entire treatment process (diesel powered generators). Regular maintenance is done with daily checks\repairs. The waste sludge is conveyed to an on-site reed bed system. Leachate from the reed bed system is conveyed back to the plant's head-works. Effluent is discharged through a 1250' 16" plastic pipe into the ocean tidewaters of Winter Harbor at Henry Cove. The end of the pipe is submerged five (5) feet at low water. There are separate wastewater and storm drains. Sewers gravity drain to waterfront pumps and then influent is pumped to the treatment plant. The reed bed is cleaned out +/- every 10 years. The sludge volume is approximately 25 cubic yards annually. Federal requirements require sludge testing done for cadmium, copper, chromium, mercury, nickel, lead, zinc, and chemical pollutants (pesticides, petroleum, radio isotopes) MeDEP toxins testing. Staff coverage is 8-5, M-F with weekend daily checks and emergency call. The facility had experienced some flow problems and has been working to remove sources of inflow and infiltration to reduce some of the sources of the flow problems. The regulation Prohibited closure (Area No. 51 (part A), Winter Harbor) size exceeds the computed effluent dilution zone (dilution calculation= 92 acres / closure size= 126.5 acres) and is adequate to protect public health. A review of the monthly DMR data for the period May 2005 – May 2010 indicates the facilities has been in compliance with the flow 82% of the time and fecal bacterial limits 100% of the time. April 27, 2010 – The Town submitted a timely and complete application to the Department to renew the MEPDES permit/WDL for the discharge from its waste water treatment facility. (MeDEP permit July 22, 2010)

Acadia National Park Training Facility-

The plant is located at the southern tip of Schoodic Point (Big Moose Island). It is a secondary plant with seasonal chlorination\de-chlorination and reed beds. The collection system has significant groundwater infiltration issues in wet weather. The treatment plant discharges into the ocean waters of Arey Cove (SB waters) through an 8" diffuser pipe. The end of the pipe is submerged ten (10) feet at low water. Emergency equipment includes propane-powered electrical generators; light and horn alarms monitored by security police and dual pumps at each pump location. Staff coverage is 8-5, M-F with weekend daily checks and emergency call. Presently, the facility is operating at a minimum capacity due to the lack of resident staff. The regulation Prohibited closure size exceeds the computed effluent dilution zone if the facility was operating at full capacity (dilution calculation= 26 acres / closure size= 83.6 acres) and is adequate to protect public health. A review of the monthly DMR data for the period January 2006 – April 2009 indicates the facilities has been in compliance with the flow 100% of the time and for the period May 2006- September 2008 had fecal bacterial limits in compliance 100% of the time. May 26, 2010 – The Town submitted a timely and complete application to the Department to renew the MEPDES permit/WDL for the discharge from its waste water treatment facility. (MeDEP permit June 8, 2009)



Stormwater

Storm water runoff is generated when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates debris, chemicals, sediment or other pollutants that could adversely affect water quality if the runoff is discharged untreated (US EPA 2009). Thus, storm water pollution is caused by the daily activities of people within the watershed. Currently, polluted storm water is the largest source of water quality problems in the United States.

The primary method to control storm water discharges is the use of best management practices (BMPs). In addition, most major storm water discharges are considered point sources and require coverage under an NPDES permit. In 1990, under authority of the Clean Water Act, the U.S. EPA promulgated Phase I of its storm water management program, requiring permitting through the National Pollution Discharge Elimination System (NPDES). The Phase I program covered three categories of discharges: (1) "medium" and "large" Municipal Separate Storm Sewer Systems (MS4s) generally serving populations over 100,000, (2) construction activity disturbing 5 acres of land or greater and (3) ten categories of industrial activity. In 1999, US EPA issued Phase II of the storm water management program, expanding the Phase I program to include all urbanized areas and smaller construction sites.

Although it is a federal program, in the state of Maine, the Phase II Storm water permit is issued and regulated by the Maine DEP (Chapter 500 and 502). Under the MS4 regulations, each municipality must implement the following six Minimum Control Measures: (1) Public education and outreach, (2) Public participation, (3) Illicit discharge detection and elimination, (4) Construction site storm water runoff control, (5) Post-construction storm water management, and (6) Pollution prevention/good housekeeping. The permit required each city or town to develop a draft Storm water Management Plan by September 3, 2003 that will establish measurable goals for each of the Minimum Control Measures. The Town must document the implementation of the Plan, and provide annual reports to the Maine DEP. Currently the discharge of storm water from 28 Maine municipalities is regulated under the Phase II permit requirements, however, no municipalities located within the boundaries of growing area EI fall under these regulations. Additionally, the Maine Storm water Management Law provides storm water standards for projects located in organized areas that include one acre of more of disturbed area (Maine DEP 2009).

Along roadways several storm water pipes and ditches of varying diameters were identified during the course of the shoreline surveys. The towns of Bar Harbor and Winter Harbor have storm water systems that drain into large Prohibited areas that include wastewater treatment plant outfalls, licensed discharge outfalls and boat moorings. Volunteers in Bar Harbor have stenciled storm drain covers with warnings about dumping animal waste, used oils, pesticides or other polluting materials into the drains. Water sampling stations on the margins of these closures meet Approved criteria. No specific impact from the storm drains has been identified.

Non-Point Pollution Sources

Non-point source (NPS) pollution is water pollution affecting a water body from diffuse sources, such as polluted runoff from agricultural areas draining into a river, or wind-borne debris blowing out to sea. Nonpoint source pollution can be contrasted with point source pollution, where discharges occur



to a body of water at a single location, such as discharges from a chemical factory, urban runoff from a roadway storm drain or from ships at sea. NPS may derive from many different sources with no specific solution to rectify the problem, making it difficult to regulate.

Streams

Freshwater and tidal creeks drain to the saltwater from upland areas. A total of 61 samples were taken from freshwater streams during the 3 year review period. The results can be seen in Table 4 below.

Table 4. Stream Samples Taken during this Triennial Period

Location ID	Stream Description	Sample Date	Flow Rate gpm	Fecal Score
EI00002.501	Pond that drains into ocean E of Schooner Head, beaver in area	6/30/2010	150	58
EI00011.101	Sm brook that crosses under road near "High Seas" estate; beaver dams observed in area.	6/30/2010	560	25
EI00015.101	Bear Brook, beaver dams	6/30/2010	202	72
EI00037.101	Kebo Brook; flows by BH STP,town,public park into Cromwell Cv	6/30/2010	890	160
EI00046.001	Eddy Brook; outfall for storm\sewer overflow and stream	6/23/2010	296	1700
EI00072.101	Breakneck Brook, Hulls Cove, drains ANP	6/23/2010	1110	820
EI00223.001	Northeast Creek	4/13/2010	20197	2
		5/5/2010	7181	50
		5/19/2010	2000	340
		6/14/2010	1346	60
		6/23/2010	2154	220
		7/27/2010	4266	40
EI00226.501	Intermittent stream running under Rt 3; drains horse pastures.	7/1/2009	90	54
		4/13/2010	224	4
		5/5/2010	45	22
		5/19/2010	200	1700
		6/14/2010	22	44
		6/23/2010	237	1700
		7/27/2010	7	160
		10/28/2010	200	112
EI00265.101	Smith Brook, drains airport and Trenton Industrial Park area into MDI Narrows	4/8/2009	150	3.6
		4/13/2010	1	1700
		5/5/2010	148	1.9
		5/5/2010	180	4
		5/19/2010		1700
		5/19/2010		1700
		6/14/2010	450	12
		6/14/2010	0	1700
	6/14/2010	450	240	



Location ID	Stream Description	Sample Date	Flow Rate gpm	Fecal Score
		6/14/2010	450	32
		6/23/2010	1795	1400
		6/23/2010	1795	1560
EI00267.005	Hancock County Airport, terminals\hangers\fuel	4/8/2009	150	1.9
EI00282.001	Crippens Brook	6/30/2010	1110	760
EI00356.101	flows into Berry Cove near camps	6/30/2010	337	15
EI00576.501	Urann Creek, drains into NE Mud Creek, upland pasture land	6/16/2010	7	14
EI00609.101	"Martin's Brook"; drains cattle pasture	4/8/2009	1500	1.9
		6/16/2010	224	42
		6/30/2010	1010	380
		7/12/2010	1680	108
EI00656.001	Kilkenny Stream\Meadow Brook	6/16/2010	1616	14
EI00844.001	Head of Jellison Cove	6/30/2010	338	124
EI00990.001	Egypt Stream	6/16/2010	1346	20
EI01008.101	West Brook,	6/16/2010	933	4
EI01023.001	WQ 71, Mill Brook,	6/16/2010	1571	62
EI01040.001	WQ 72, Springer Creek	6/16/2010	135	16
EI01098.001	Card Mill Stream,	6/16/2010	34335	20
EI01098.601	Johnnys Brook,	6/16/2010	1526	14
EI01168.101	brook draining pasture land into Evergreen Cove	6/30/2010	333	52
EI01210.101	stream drains W Sullivan Villlage, crosses Hog Bay Rd, and enters cove just N of Singing Bridge	6/16/2010	259	34
EI01232.101	Grays Brook, flows into Preble Cove	6/16/2010	533	1.9
EI01272.101	Mill Brook, flows into Sullivan Hbr	6/16/2010	112	4
EI01321.101	Sm brook entering saltwater Westside Rd., Sorrento	6/30/2010	130	9.1
EI01332.101	Brook draining Sorrento Community pool and wetland;	6/30/2010	144	10
EI01485.001	Flander's Stream	6/16/2010	7406	14
EI01519.001	Morancy Stream, drains wet land and house lots	6/16/2010	1077	22
EI01576.001	Jone's Pond Outlet	6/16/2010	4578	16
EI01674.101	Small stream entering head of Summer Hbr near Winter Harbor\Gouldsboro townline.	6/16/2010	144	4
EI01776.101	drainage between IGA\post office, Winter Harbor	6/16/2010	505	14
EI01825.001	Mill Stream, beaver dams	6/16/2010	1616	1.9

The streams sampled that consistently have fecal coliform scores greater then 100 FC/100 ml include Kebo Stream (EI00037.101), Eddy Brook (00046.001), Breakneck Brook (00072.101), Northeast Creek (00223.001), intermittent ditch from house pasture (EI00226.501), Smith Brook (EI00265.101), Crippens Brook (EI00282.001), Martin Brook (EI00609.101) and Jellison Cove (EI00844.001). All these streams drain into areas classified either prohibited or restricted with the exception of Crippens Brook, which drains into an approved area. Water quality sample station EI 39 is adjacent to the mouth of Crippens Brook and presently meets approved standards.

Marinas

The marina community in Maine only operates for a portion of the year due to adverse winter weather conditions. The management of marinas in Maine allows for shellfish growing areas to be



available to harvesters for at least a portion of the year, to direct market harvest, by utilizing conditional area management plans.

Small mooring fields are scattered throughout the growing area with the largest number (groups of 10 or more moorings) of boats in Bar Harbor, Lamoine, Hancock, Sullivan, Sorrento and Winter Harbor. There is a boat pump-out facility at the Frenchman Bay Boat Company, West Street, Bar Harbor and at Winter Harbor Marine, Sargent Street, Winter Harbor. Mooring fields in Lamoine, Hancock and Sullivan are almost exclusively work boats (lobster boats, trawling vessels) and 2-4 pleasure boats. These are not common overnight stopping areas for recreational boaters and not identified as pollution risks due to the number of boats and types of usage. Sorrento is a popular cruising destination and has a marina Conditionally Approved management plan that opens the area to shellfish harvesting from October 1 through April 30. Water quality sample sites in the mooring area meets Approved classification criteria when in the open status. Marinas with wharfs, fuel, slips, etc. are located in Bar Harbor, Gouldsboro and Winter Harbor. All are within Prohibited areas. Based on the numbers of live-aboard boats, conditionally approved areas or areas classified prohibited, mooring areas are classified correctly to protect public health.

Agricultural Activities

Agricultural operations of concern identified in the 2007 sanitary survey include; AGP1- a horse farm in Northeast Creek (Bar Harbor) that is impacting the saltwater at EI 34.2 with heavy runoff. A restricted area was promulgated at the mouth of the stream on January 19, 2011. The Bar Harbor town officials have been made aware of the problem; AGP2- a cluster of Skillings River (Lamoine) farms upland of Weir and Martin Coves had historically impacted water testing station EI046.00 and a restricted area was promulgated that closed the coves due to water quality not meeting approved standards. At the end of 2010, EI047.60 also no longer met the approved standard and the restricted area was enlarged on January 4, 2011 to include all of the upper Skillings River. The Lamoine town officials have been made aware of the problem; AGP3- a Skillings River animal pasture near the water with no identified impact at two nearby water testing stations (EI042.80-EI043.00); AGP4- and a South Gouldsboro horse paddock uphill of Sample Station EI105.10 has no identified impact on the station. These areas will continue to be monitored and any possible corrective action taken through local town officials. There are no identified slaughter houses, large scale manure spreading operations or garden centers in the area. At the end of 2010, agricultural operations of concern were in restricted areas adequate to protect public health.

Industrial Pollution

There is no heavy industrial activity in the growing area such as chemical plants, steel mills, ship yards or refineries. None of the small industries (small boat builders and boat storage yards, an inactive international ferry wharf and wildlife nature boat tour businesses) were identified as known pollution sources during the 2007 survey. All of the shellfish areas adjacent to the businesses meet their present area classifications.

Hancock County-Bar Harbor Airport is located in Trenton adjacent to Bar Harbor Narrows. The airport provides services for commercial connector airlines, general air and air shipping companies. Aircraft maintenance and servicing is available. The airport is a Class III facility and must comply under the FAA Part 139, Class III airport operational and safety requirements. These include A recordkeeping system and new personnel training (per §139.303), Safety areas (per §139.309), Snow and ice control plan (per §139.313), Aircraft rescue and fire fighting response, HAZMAT handling/storage (per §139.321), Airport Emergency Plan, Self-inspections (per §139.327), Wildlife hazard



management (per §139.337) and Airport condition reporting (per §139.339). No pollution source has been identified impacting adjacent water quality stations (EI 36, 37 or 39)

Small individual storage tanks for gasoline and diesel were noted at five locations in the growing area. These tanks are near the shore. Tanks have containment walls and booms in the event of an accidental leak in a tank or spillage when unloading. The oil response team from the Maine DEP contacts Maine Marine Resources when a spill occurs and a decision will be made whether a shellfish closure is necessary.

Domestic Animals and Wildlife Activity

The salt marshes and mudflats of the growing area do provide valuable habitat to a variety of wildlife. Mammals living within the growing area include dogs, cats, whitetail deer, muskrat, squirrels, chipmunks, rabbits, moles, mice, bats, shrews, weasels, skunks, beaver and raccoons. Commonly observed bird species include a variety of gulls, sea and inland ducks, cormorants, geese, great blue herons, egrets, swans, and others. Maine Inland Fish and Wildlife surveys indicate that migratory waterfowl numbers begin to increase in the early summer months, and typically peak in late fall or early winter. Although large numbers of birds can, in theory, pose a threat the growing area water quality, such occurrences are very difficult to document. Areas to include the Skillings River (Lamoine-Hancock) and Taunton Bay (Hancock-Franklin-Sullivan) have areas classified restricted due to non-point pollution with large populations of beaver up streams from the estuary. These areas will continue to be monitored and any possible corrective action taken through local town officials.

Conservation/Recreation Areas

The concern for actual or potential pollution from recreational areas is because many of them allow dogs and some having bathroom facilities. The mere presence of humans/dogs doesn't necessarily mean there is an actual pollution source, but it is a potential pollution source. In and of themselves, they aren't a pollution source but activities at the recreational areas may contribute to water quality problems by placing added pressure on the watershed. For instance, they may contribute to erosion (trails, building footbridges, etc.), dog waste not picked up may accumulate and wash off after rainfall, new trails may be put into areas that didn't have human activity before and they may put added pressure on wildlife to congregate in other places where we may see water quality decline.

Growing area EI surrounds Taunton and Frenchman Bays. The entire growing area is heavily use by recreational users year-round. There are several day use beaches and picnic areas to include Acadia National Park (Mt. Desert Island and Schoodic Point), Lamoine State Park (Lamoine), Reversing Falls Park (Hancock) and Taunton Bay Conservation Areas (Hancock, Franklin, Sullivan). Dogs are allowed in these areas and posted recommendations are that they are on a leash and their feces collected and carried out. There are commercial campgrounds on Mt. Desert Island and a state campground at Lamoine State Park. These areas are monitored by routine water sampling sites and no pollution source impacts have been identified with one exception. The exception is a seasonal commercial campground whose shore-front is classified conditionally approved with an open status when the campground is closed for the winter (October 1-April 30). Although there are a few gravel beaches in the area, swimming in the ocean in this area is relatively rare, as the water temperatures rarely exceed 65°F.



Water Quality Review and Discussion

Table 5 lists all active approved, restricted and prohibited stations in Growing Area EI, with their respective Geomean and P90 calculations for 2010. Please refer to Appendix E for a key to interpreting the headers on the columns of Table 4. The approved and restricted standards for each station are also displayed in Table 4. These standards will fluctuate yearly as a result of the DMR transition from a most probable number (MPN) fecal coliform test method to a membrane filtration (MF) method and are dependent on the number of samples analyzed by MPN versus MF. The total number of data points used in the calculations is displayed in the Count column and includes both MPN and MF values. The number of data points analyzed by MF is displayed in the MFCNT column. This fluctuating standard will cease when all 30 data points have been analyzed by the MF method. A more detailed explanation of this transition can be found in DMR central files.

All approved, conditionally approved, conditionally restricted and restricted stations met their NSSP classification standard in 2010 with the exception of EI 47.6, which was re-classified from approved to restricted on January 4, 2011.

There are five prohibited sample stations (EI 3, 23.7, 29, 89 and 113) that have P90 values that meet the approved standard but must remain closed due to point source pollution (wastewater treatment plant outfalls or licensed overboard discharges). Prohibited stations that now meet approved classification standards are EI 75.8, 75.9 and 105; however these stations show high variability and will remain classified prohibited at this time. Eight stations do not have 30 data points and do not have a classification associated with them.

Restricted station EI 37 meets the approved standard; however there is a potential pollution source in the area that precludes any classification change at this time.

Table 5. Geomean and P90 Scores, Growing Area EI

Station	Class	Count	MFCnt	GM	SDV	MAX	P90	Appd_Std	Restr_Std
EI001.00	A	30	26	4.2	0.45	54	16.3	32	176
EI003.00	P	30	26	5.1	0.65	480	35.5	32	176
EI008.00	P	30	27	6.6	0.69	1700	51.3	32	173
EI023.70	P	new	26	2.8	0.44	160	10.5	31	163
EI024.00	A	new	26	2.1	0.16	10	3.4	31	163
EI029.00	P	30	26	2.5	0.24	28	5.3	32	176
EI031.00	P	30	26	5.9	0.88	1700	80.1	32	176
EI033.00	A	30	26	3	0.47	100	12.4	32	176
EI034.00	A	30	29	3.8	0.59	480	22.4	31	166
EI034.20	R	new	16	5	0.6	82	30.2	31	163
EI036.00	A	30	26	2.8	0.35	20	8	32	176
EI037.00	R	30	30	2.7	0.53	1260	13.4	31	163
EI039.00	A	30	26	4.3	0.63	760	28	32	176
EI040.00	A	30	26	3	0.48	340	12.7	32	176
EI041.00	A	30	26	2.5	0.39	240	8.4	32	176
EI042.00	A	30	26	2.6	0.34	74	7.3	32	176
EI042.80	A	new	29	2.4	0.31	40	6.3	31	162
EI043.00	A	30	30	2.2	0.22	25	4.3	31	163



Station	Class	Count	MFCCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
EI044.00	A	30	26	3.7	0.67	1100	27.5	32	176
EI045.00	R	30	26	7	0.66	360	49.7	32	176
EI046.00	R	30	26	5.2	0.64	450	35	32	176
EI047.00	R	30	27	3.3	0.45	75	12.9	32	173
EI047.60	R	30	28	5.4	0.74	440	49.5	31	169
EI050.00	R	30	26	3.6	0.54	260	18	32	176
EI051.00	A	30	26	4.2	0.51	72	19.5	32	176
EI052.00	A	30	26	2.6	0.33	92	7	32	176
EI054.00	A	30	26	2.5	0.3	48	6.2	32	176
EI056.00	A	30	26	2.6	0.25	24	5.5	32	176
EI058.00	A	30	26	2.3	0.19	13	4.2	32	176
EI059.00	A	30	26	2.4	0.21	10	4.5	32	176
EI061.00	A	30	26	2.6	0.29	24	6.2	32	176
EI063.00	A	30	26	2.5	0.24	14	5.3	32	176
EI064.00	P	30	26	10.4	0.65	260	72.5	32	176
EI065.00	P	new	24	5.2	0.58	96	29.6	31	163
EI068.00	A	30	26	3.2	0.58	1700	18.4	32	176
EI069.00	A	30	26	2.1	0.13	8	3.2	32	176
EI070.00	A	30	26	2.7	0.31	23	7	32	176
EI070.10	A	30	26	4.4	0.59	840	26.2	32	176
EI070.15	A	new	17	3.9	0.37	22	12.2	31	163
EI070.20	A	30	27	3.9	0.65	1700	27	32	173
EI070.30	R	30	26	9.8	0.73	1700	86	32	176
EI070.40	A	new	16	3.6	0.39	33	11.5	31	163
EI070.50	P	30	26	12	0.86	1700	153.7	32	176
EI070.52	P	30	26	8.6	0.77	1200	84.3	32	176
EI070.60	R	30	27	3.4	0.58	1700	19.1	32	173
EI070.70	P	30	26	6.1	0.74	1700	55.3	32	176
EI070.82	A	30	26	4.2	0.46	120	16.9	32	176
EI070.90	A	30	26	3.4	0.5	360	15.2	32	176
EI071.00	P	30	26	6.4	0.69	1700	50.3	32	176
EI071.50	P	new	21	11.1	0.56	98	58.9	31	163
EI072.00	P	30	27	11.5	0.73	1700	101.4	32	173
EI072.50	P	30	26	4	0.49	100	17.2	32	176
EI073.00	A	30	26	5.5	0.56	200	29.3	32	176
EI073.70	P	30	26	16.1	0.74	1700	144.4	32	176
EI074.00	A	30	26	5.4	0.55	240	27.9	32	176
EI075.00	A	30	26	3.1	0.42	84	10.9	32	176
EI075.60	R- boundary	30	26	5.6	0.54	200	27.9	32	176
EI075.80	P	30	26	3.3	0.53	320	16.1	32	176
EI075.90	P	30	26	2.9	0.49	580	12.7	32	176
EI079.00	A	30	26	2.1	0.15	11	3.3	32	176
EI082.00	A	30	26	4.2	0.63	1700	27.5	32	176



Station	Class	Count	MFCCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
EI083.00	A	30	26	3.1	0.44	112	11.7	32	176
EI084.00	A	30	26	3.4	0.46	44	13.9	32	176
EI086.00	A	30	26	2.2	0.16	9.1	3.6	32	176
EI087.00	A	30	26	2.6	0.31	64	6.5	32	176
EI089.00	P	30	26	2.4	0.3	62	6	32	176
EI098.00	A	30	27	3.1	0.34	24	8.6	32	173
EI100.00	A	30	26	4	0.64	1220	26.8	32	176
EI102.00	A	30	26	3	0.3	20	7.4	32	176
EI103.00	A	30	27	5	0.52	98	24.2	32	173
EI105.00	P	30	26	4.7	0.62	400	29.8	32	176
EI105.10	A	30	27	2.2	0.18	12	3.8	32	173
EI106.00	A	30	26	3	0.42	220	10.6	32	176
EI108.00	A	30	26	2	0.07	3.6	2.5	32	176
EI109.00	A	30	26	2.7	0.29	23	6.4	32	176
EI110.70	A	30	26	3.4	0.38	40	10.7	32	176
EI111.00	A	30	26	2.7	0.37	150	8.3	32	176
EI112.00	A	30	26	2.7	0.45	460	10.4	32	176
EI113.00	P	30	26	2.1	0.13	8	3.2	32	176

Table 6 lists all conditionally approved and conditionally restricted stations in the Bar Island, Thomas Island and Sorrento conditional areas with their respective Geomean and P90 calculations for 2010. Data for conditional stations reflects only the open status. All stations met the approved classification standard during the open status. Station EI 9 has an open status of three months (March 1-May 31). Sample dates during the open status from 1999 to the present totals only 26 samples. These samples include when the area was classified prohibited.

Table 6. Thomas Island, Sorrento Bar and Bar Island Conditional Areas During Open Status

Station	Class	Count	MFCCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
Bar Island Area									
EI009.00	CR	26	11	2.9	0.28	48	6.9	40	231
Thomas Island Area									
EI034.30	CA	30	30	4.2	0.53	112	20.2	31	163
EI034.70	CA-boundary	30	30	3.8	0.47	62	15.6	31	163
Sorrento Marina Area									
EI091.00	CA-boundary	30	30	2.1	0.15	8	3.3	31	163
EI093.00	CA	30	30	2.3	0.32	36	6.1	31	163
EI096.00	CA-boundary	30	30	2.1	0.18	13	3.6	31	163

All approved, restricted and prohibited stations that were active at the beginning of 2009 were sampled at least 6 times following the systematic random sampling (SRS) schedule (Table 7) Sample stations EI 23.7, 24, 34, 34.2, 37, 47, 47.6, 70, 70.82 and 73 were sampled under adverse conditions or sampled extra to enlarge their dataset. The Bar Island conditionally restricted area was



sampled 3 times in the open status and a total of 12 times for the year; the Thomas Island conditionally approved seasonal area was sampled 7 times in the open status and a total of 12 times for the year and the Sorrento marina conditionally approved stations were sampled 7 times in the open status and a total of 12 times for the year. Sample stations EI 34.2, 44, 51, 70, 70.82, 73, 100 and 103 were sampled during flood events for re-opening samples.

Table 7. EI Samples Collected in 2010

Station	Class	Adverse		Extra		Random		Total	Comments
		Closed	Open	Closed	Open	Closed	Open		
EI001.00	A						6	6	
EI003.00	P					6		6	
EI008.00	P					6		6	
EI009.00	CR					9	3	12	
EI023.70	P			1		6		7	
EI024.00	A				1		6	7	
EI029.00	P					6		6	
EI031.00	P					6		6	
EI033.00	A						6	6	
EI034.00	A		2		1		6	9	Adverse-open samples targeting rain conditions
EI034.20	R	22	2		2		7	33	Flood samples Adverse-open samples targeting rain conditions Reclass A to R 1/19/2011
EI034.30	CA					5	7	12	
EI034.70	CA					5	7	12	
EI036.00	A						6	6	
EI037.00	R				2		6	8	
EI039.00	A						6	6	
EI040.00	A						6	6	
EI041.00	A						6	6	
EI042.00	A						6	6	
EI042.80	A						6	6	
EI043.00	A						6	6	
EI044.00	A	23					6	29	Flood samples
EI045.00	R						6	6	
EI046.00	R						6	6	
EI047.00	A				1		3	4	Reclass R to A 6/22/10
	R						3	3	Reclass A to R 1/4/2011
EI047.60	R				2		6	8	Reclass A to R 1/4/2011
EI050.00	R						6	6	Reclass A to R 1/4/2011
EI051.00	A	23					6	29	Flood samples
EI052.00	A						6	6	
EI054.00	A						6	6	
EI056.00	A						6	6	
EI058.00	A						6	6	



Station	Class	Adverse		Extra		Random		Total	Comments
		Closed	Open	Closed	Open	Closed	Open		
EI059.00	A						6	6	
EI061.00	A						6	6	
EI063.00	A						6	6	
EI064.00	P					6		6	
EI065.00	P					6		6	
EI068.00	A						6	6	
EI069.00	A						6	6	
EI070.00	A	21	2				6	29	Flood samples Adverse-open samples targeting rain conditions
EI070.10	A						6	6	
EI070.15	A						6	6	
EI070.20	A						6	6	
EI070.30	R						6	6	
EI070.40	A						6	6	
EI070.50	P					6		6	
EI070.52	P					6		6	
EI070.60	R						6	6	
EI070.70	P					6		6	
EI070.82	A	21	2				6	29	Flood samples Adverse-open samples targeting rain conditions
EI070.90	A						6	6	
EI071.00	P					6		6	
EI071.50	P					6		6	
EI072.00	P					6		6	
EI072.50	P					6		6	
EI073.00	A	22	2				6	30	Flood samples Adverse-open samples targeting rain conditions
EI073.70	P					6		6	
EI074.00	A						6	6	
EI075.00	A						6	6	
EI075.60	R						6	6	
EI075.80	P					6		6	
EI075.90	P					6		6	
EI079.00	A						6	6	
EI082.00	A						6	6	
EI083.00	A						6	6	
EI084.00	A						6	6	
EI086.00	A						6	6	
EI087.00	A						6	6	
EI089.00	P					6		6	
EI091.00	CA					5	7	12	
EI093.00	CA					5	7	12	



Station	Class	Adverse		Extra		Random		Total	Comments
		Closed	Open	Closed	Open	Closed	Open		
EI096.00	CA					5	7	12	
EI098.00	A						6	6	
EI100.00	A						6	6	
EI102.00	A						6	6	
EI103.00	A	25					6	31	Flood samples
EI105.00	P					6		6	
EI105.10	A						6	6	
EI106.00	A						6	6	
EI108.00	A						6	6	
EI109.00	A						6	6	
EI110.70	A						6	6	
EI111.00	A						6	6	
EI112.00	A						6	6	
EI113.00	P					6		6	

Figures 7-12 are trend graphs of the approved and prohibited, restricted, conditionally restricted and conditionally approved sample stations in the growing area. Station P90 scores are expressed as percents of the approved standard. Conditionally approved values are based on the open status data only. Conditionally approved and conditionally restricted areas met their classification standards in the open status. Overall, 2010 water quality has remained constant compared with 2009. Station EI 47.6 was a boundary station for restricted area 49-B (part 2) in the Skillings River (Lamoine-Hancock). This restricted area was increased in size on January 4, 2011 and EI 47.6 was re-classified from approved to restricted. Station EI 50 was embedded in this enlarged restricted area and was also re-classified from approved to restricted.

There are five prohibited sample stations (EI 3, 23.7, 29, 89 and 113) that have P90 values that meet the approved standards but must remain closed due to point source pollution (wastewater treatment plant outfalls or licensed overboard discharges). Prohibited stations that now meet approved classification standards are EI 75.8, 75.9 and 105; however these stations show high variability and will remain classified prohibited at this time.

Restricted station EI 37 meets the approved standard; however there is a potential pollution source in the area that precludes any classification change at this time.

Sample stations classified approved that are in danger of being reclassified to a more restrictive classification are EI 39, 44, 73, 74, 82 and 100. Stations 39, 82 and 100 presently have no identified reasons for the rapid decline in water quality in the areas. Stations 44, 73 and 74 are all on the margins of restricted areas that have shown declining water quality in 2010. The local town shellfish committee is actively working at identifying and mitigating the pollution sources in these areas.

In 2009, EI 34 was likely impacted by dog waste on the beach, but has shown improved water quality since signage in the area required the pick-up of waste by owners. A new septic system and removal of a horse pasture may explain the rapid water quality improvement in the area of station EI 70.82.



The restricted stations are being compared to the approved standard to graphically demonstrate that they do or do not meet the approved standard. Restricted stations having P90 values <100% of the approved classification standard are EI 37, 47, 50, 70.6 and 75.6. The remainders of the restricted stations exceed 100% of the approved standard but are less than the restricted class standard. Station EI 37 meets seasonal conditionally approved criteria; however a malfunctioning septic system nearby precludes any classification change at this time. Stations EI 47 and 50 are imbedded in a restricted area and are intermixed among stations (EI 46 and 47.6) that do not meet approved standards. The area is being investigated for pollution sources by the town shellfish committee. Restricted station EI 34.2 is at the limit of the approved standard and is impacted by an intermittent pollution source. Local town officials are aware of the problem and are addressing it.

Figure 7. Area EI P90 Score Trends for Approved Stations (expressed as the percent of the approved standard)

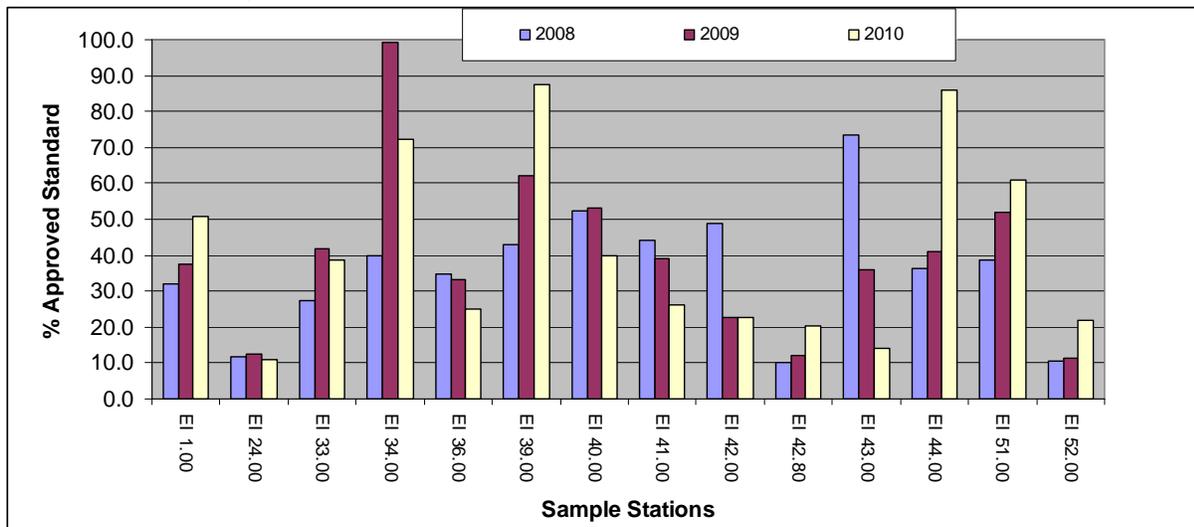


Figure 8. Area EI P90 Score Trends for Approved Stations (expressed as the percent of the approved standard)

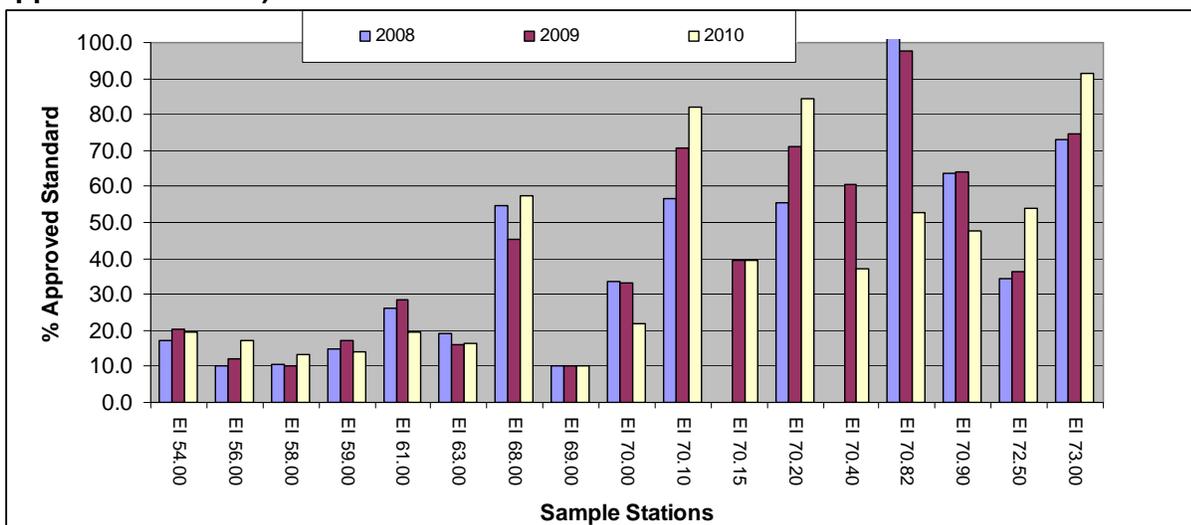




Figure 9. Area EI P90 Score Trends for Approved Stations (expressed as the percent of the approved standard)

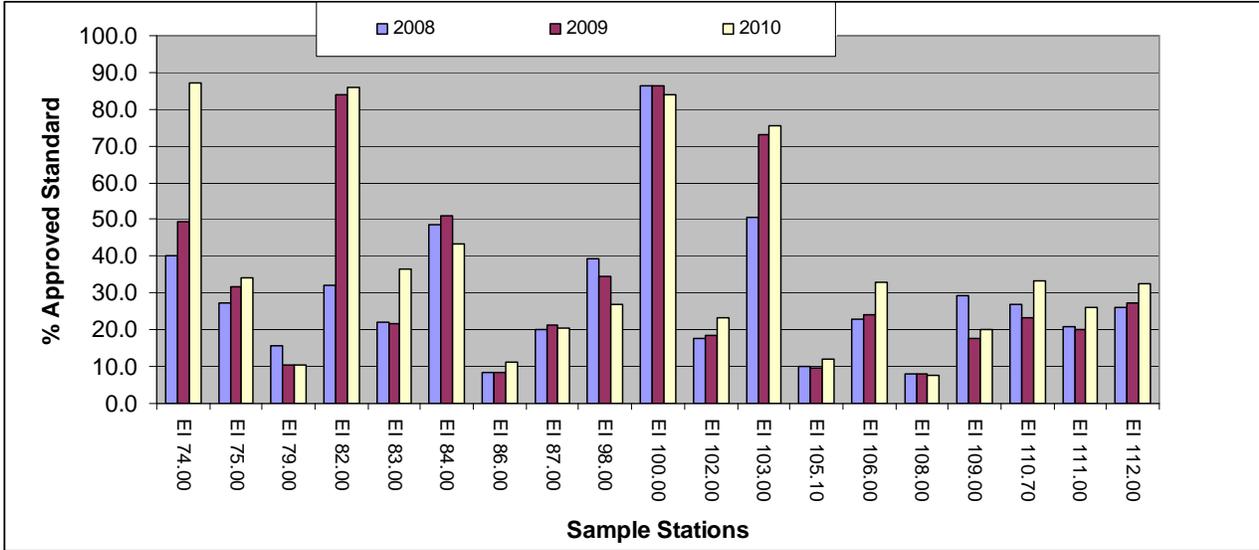


Figure 10. Area EI P90 Score Trends for Restricted Stations (expressed as the percent of the approved standard)

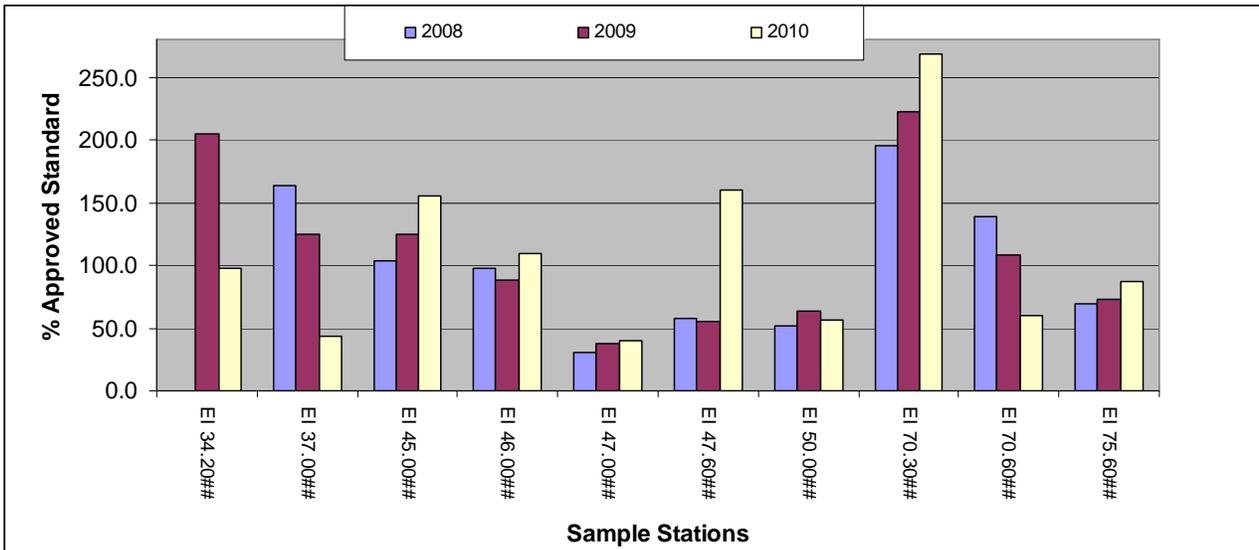




Figure 11. Area EI P90 Score Trends for Conditionally Approved- Conditionally Restricted Stations (expressed as the percent of the approved standard), During the Open Period

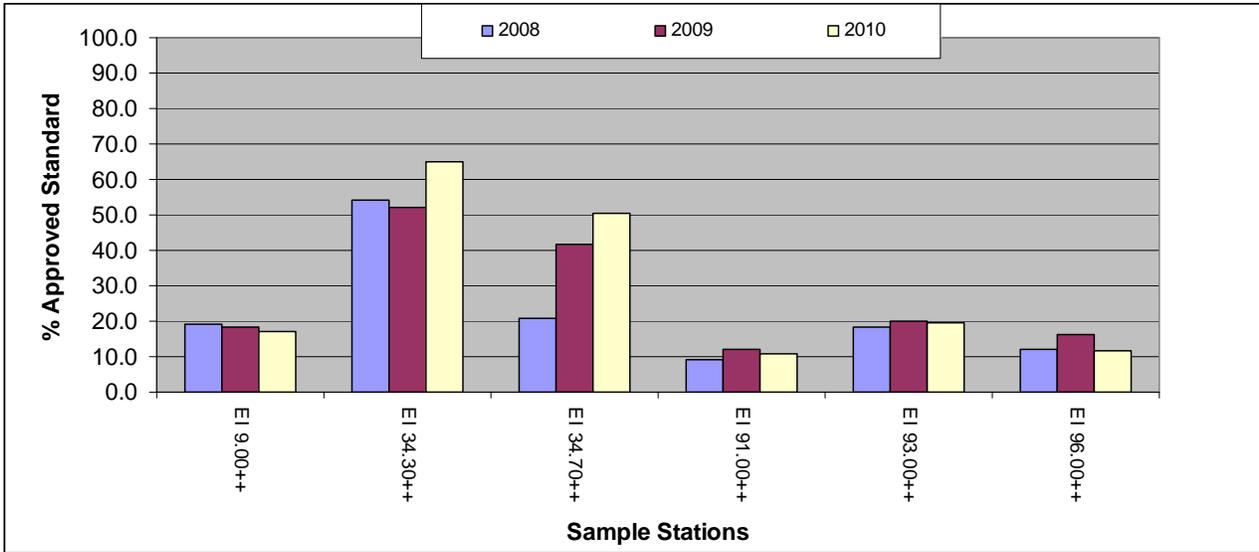
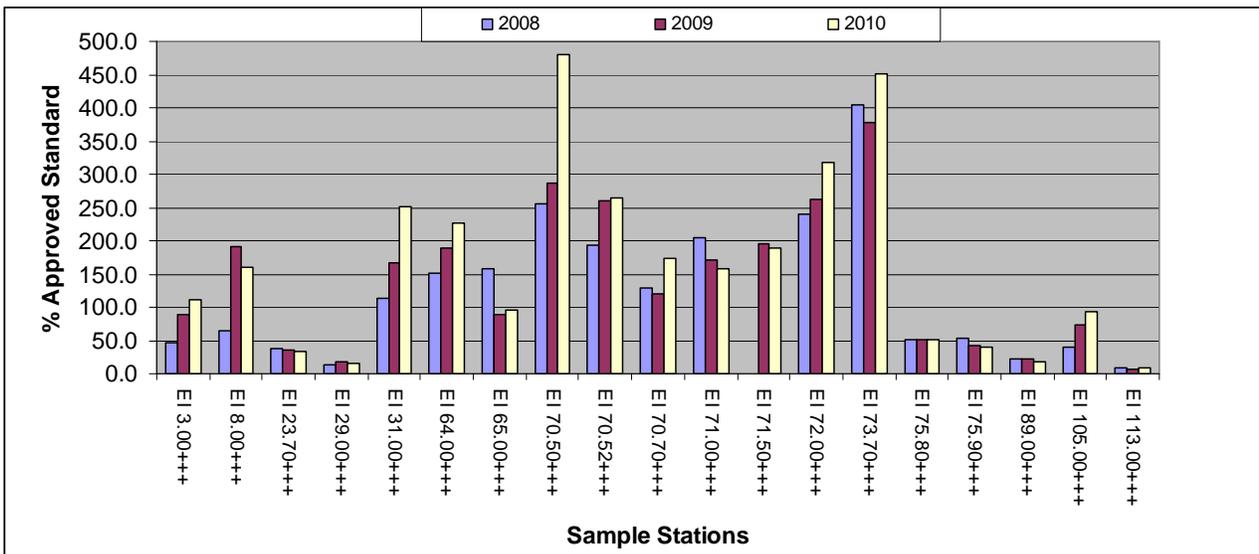


Figure 12. Area EI P90 Score Trends for Prohibited Stations (expressed as the percent of the approved standard)



Upward Classification Changes

There are no upward classifications recommended at this time.



Shoreline Survey Activity

September 10, 2008- surveyed and sampled the private residence adjacent to Sullivan, Harbor, Sullivan, to identify a pollution source complaint from a neighbor. Sample of pooled water was 40 FC/100 ml.

April 24, 2008- surveyed and sampled the Trenton airport area to identify pollution sources impacting the areas water quality stations EI 37. Stream scores were <2 FC/100 ml.

March 26, 2008- surveyed and sampled the private residence adjacent to Raccoon Cove, Lamoine, to identify a pollution source complaint from a neighbor. Samples were <2 FC/100 ml.

April 8, 2009- surveyed and sampled the Trenton airport area and Martin Brook, Lamoine to identify pollution sources impacting the areas water quality stations EI 37 and EI 46.

July 1, 2009- surveyed and sampled the Northeast Creek, Bar Harbor area to identify pollution sources impacting the water quality station EI 34.2. Stream scores was 54 FC/100 ml.

April 13, 2010- surveyed and sampled Smith Brook, Trenton, area to identify pollution sources impacting the water quality station EI 37. Stream scores were >1600 and <2 FC/100 ml.

April 13, 2010- surveyed and sampled the Northeast Creek, Bar Harbor area to identify pollution sources impacting the water quality station EI 34.2. Stream scores were 2 and 4 FC/100 ml.

May 5, 2010- surveyed and sampled Smith Brook, Trenton, area to identify pollution sources impacting the water quality station EI 37. Stream scores were <2 and 4 FC/100 ml.

May 5, 2010- surveyed and sampled the Northeast Creek, Bar Harbor area to identify pollution sources impacting the water quality station EI 34.2. Stream scores were 50 and 22 FC/100 ml.

May 19, 2010- surveyed and sampled Smith Brook, Trenton, area to identify pollution sources impacting the water quality station EI 37. Stream scores were >1600 FC/100 ml.

May 19, 2010- surveyed and sampled the Northeast Creek, Bar Harbor area to identify pollution sources impacting the water quality station EI 34.2. Stream scores were 340 and >1600 FC/100 ml.

June 14, 2010- surveyed and sampled the Northeast Creek, Bar Harbor area to identify pollution sources impacting the water quality station EI 34.2. Stream scores were 44 and 60 FC/100 ml.

June 14, 2010- surveyed and sampled Smith Brook, Trenton, area to identify pollution sources impacting the water quality station EI 37. Stream scores were 240, 12, >1600 and 32 FC/100 ml.

June 16, 2010- sampled eighteen growing area streams within the area from Lamoine to Winter Harbor.

June 23, 2010- sampled five growing area streams within the area from Hulls Cove to the Trenton Narrows Bridge, Bar Harbor.

June 30, 2010- sampled eleven growing area streams within the area from Schooner Head, Bar Harbor to Sorrento.

July 12, 2010- sampled Martin Brook, Lamoine to determine if it was a pollution source impacting EI 46. Stream score was 108 FC/100 ml.

July 27, 2010- surveyed and sampled the Northeast Creek, Bar Harbor area to identify pollution sources impacting the water quality station EI 34.2. Stream scores were 40 and 160 FC/100 ml.

October 28, 2010- surveyed and sampled the Northeast Creek, Bar Harbor area to identify pollution sources impacting the water quality station EI 34.2. Stream scores were 104 and 112 FC/100 ml.

April 2010- Town of Bar Harbor, Bar Harbor, Maine. The Town of Bar Harbor ("Bar Harbor") violated Maine's Protection and Improvement of Waters law and the conditions of a permit issued there under by discharging untreated wastewater to Frenchman Bay. Specifically, the town's Hulls Cove Pump Station overflowed to Frenchman Bay on two occasions due to failure of the pumps during high flow events. Based on pumping records, approximately 75,000 gallons of untreated wastewater was discharged on each occasion. To resolve the violations, Bar Harbor agreed to submit to the Department for review and approval plans and a schedule for temporary and permanent upgrades or



replacement of the existing alarm system as necessary to prevent or minimize overflows from the Hulls Cove Pump Station, and paid \$1,175 as a civil monetary penalty.

June 25, 2010- A malfunctioning septic system was identified on Route 3 (Trenton) that drained into the restricted area near EI 36 and 37. Trenton town officials, Maine DEP and Maine DHHS informed of the problem. The property is on the Small Community Grant Program to be repaired. No repairs have been done at present.

July 16, 2010- Around noon, an 18' Parker sank at the mouth of the Jordan River. Marine Patrol was on scene and did not observe any fuel leakage in the area. The boat was hauled over to the seaplane ramp in the afternoon and no fuel leakage was observed in transit. There was an estimated 10 gallons of gasoline spilled on the ramp when the boat was turned over. Because the day was hot and windy the gas evaporated quickly. No action was taken because the area was already closed to harvest and will remain closed well after the gas spill clears. The spill was not large enough to be considered a public health threat.

July 22, 2010- A small cruise ship released an unknown volume of gray water into the Bar Harbor wharf area. The release area (Area 47) is classified prohibited and the nearby Bar Island conditionally restricted area was in the closed status. No action was taken.

December 20, 2010- EI 47.6 does not meet approved standards at the 2010 year-end review. An ongoing survey and pollution source sampling is presently taking place with the local shellfish committee.

Aquaculture/Wet Storage Activity

There are ten aquaculture sites and one wet storage permit in this growing area. The shellfish aquaculture sites and the wet storage permit within the growing area are listed below. All of the sites are located within approved areas. More detail can be found at the web site:

<http://www.maine.gov/dmr/aquaculture/index.htm>

Table 8. El Wet Storage Sites

Dealer Name	Certification #	Permit #	Location	Date Expires
Eastern Maine Mussel	ME 123 SS	2010-WS28	Flow through system at facility	July 31, 2011
Maine Cultured Mussels Inc	ME 167 SS	2010-WS12	Barge in Mount Desert Narrows	July 31, 2011
RDR LLC	ME 179 SS	2010-WS04	Recirculation tanks at facility	July 31, 2011
Stewardship GEM LLC	ME 181 SS	2010-WS21	Float moored at any of 6 aquaculture leases	July 31, 2011
Stewardship GEM LLC	ME 181 SS	2010-WS22	Vessel moored at any of 6 aquaculture leases	July 31, 2011
Trenton Bridge Lobster Pound Inc	ME 105 SS	2010-WS10	On-site recirculation closed system	July 31, 2011



Recommendation for Future Work

1. Working remediating identified Skillings River pollution issues with the town shellfish committee.
2. Working remediating identified Hog Bay pollution issues with the town shellfish committee.

References

Maine Municipal Directory 2007-2008, Maine Municipal Association

Maine DEP 2010. Status of Licensed Discharges and Combined Overflow Abatement Program. Maine Department of Environmental Protection.

http://www.maine.gov/dep/blwq/report/2009/licensed_discharges.pdf

Maine DEP 2010. 2010 Maine Pump-out Station and No Discharge Area Guide.

<http://www.maine.gov/dep/blwq/topic/vessel/pumpout/pumpoutguide.pdf>

Maine DEP MER. 2010. DEP Monthly Enforcement Reports. <http://www.maine.gov/dep/oc/mcar/>

EPA NPDES. 2010. United States Environmental Protection Agency NPDES (National Pollution Discharge Elimination System) Permits in New England – Maine.

<http://www.epa.gov/region01/npdes/index.html>

Maine DMR Aquaculture. 2010. Aquaculture Lease Inventory.

<http://www.maine.gov/dmr/aquaculture/leaseinventory/index.htm>

Maine Office of GIS 2010.

NSSP 2007. National Shellfish Sanitation Program Model Ordinance, Guide for the Control of Molluscan Shellfish. 2007.

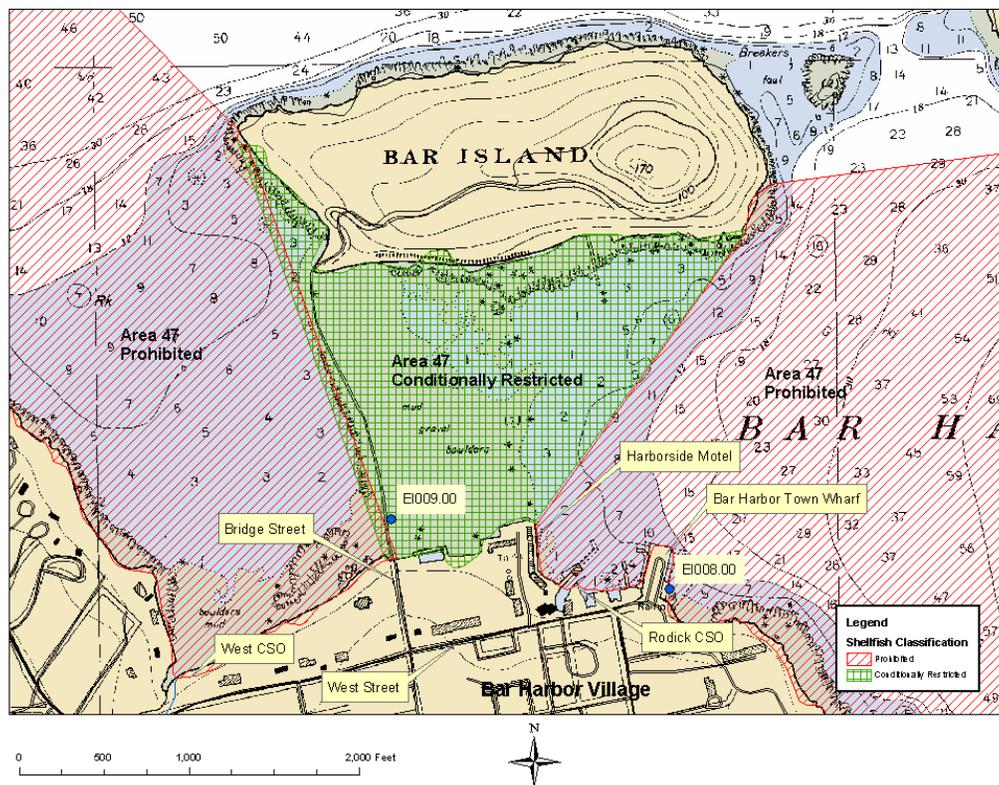


Appendix A. Annual Review of Conditional Area Management Plan Area 47 (Part C)

Growing Area EI; Area 47 (Part C) Bar Island Conditionally Restricted, Bar Harbor

Scope

This conditionally restricted area is seasonally (March 1-May 31) available for depuration harvesting. The area includes the Bar Island causeway bar, in the town of Bar Harbor, bounded on the east by a line from the Harborside Hotel property northerly to the mid southerly shore of Bar Island; and on the west by a line from the end of Bridge Street to the western tip of Bar Island. Bar Harbor WWTP officials are working with the Maine Department of Environmental Protection to eliminate the combined sewer overflows in the area.



Compliance with management plan

Area No. 47(part C), Bar Island bar, is a seasonal conditionally restricted area based on the lack of combined sewer overflow activity at the Rodick Street and West Street outfalls in the Bar Harbor Wastewater Plant collection system for 14 days prior to depuration harvesting, and less than ten live aboard boats off the Bar Harbor pier during the period from March 1 thru May 31 annually. If a request for depuration is made, the combined sewer overflow records for Rodick Street and West Street are reviewed to see if there has been any activity. The area is required to be sampled monthly during the open status. Samples were collected 3 times from each of the water quality monitoring



sites during the open status (3/23, 4/6, 5/4). Lack of boating activity in the mooring field during the open status was confirmed on February 2, March 23, April 6, May 4 and June 2, 2010. Water quality meets the standard for restricted classification during the open status. There was no depuration harvesting activity from the area in 2010.

Adequacy of reporting and cooperation of involved persons

Cooperation between the depuration company, Bar Harbor Town officials, Bar Harbor wastewater treatment plant staff and the DMR during the harvest period ensures that the conditional area meets depuration criteria. Signed agreements address the importance of alerting the DMR in the event of any CSO flow.

Maine Marine Patrol logs indicate law enforcement activity during closed and prohibited periods. The officers take an active role in managing the harvest of the resource during the open status and prevention of contaminated product reaching the market during the closed status.

Compliance with conditionally restricted growing area criteria

All stations within the conditional restricted area meet relay or depuration standards during the open status based on geomeans and P90 values and lack of boating activity and/or combined sewer outfall flows. Monitoring stations are part of a scheduled water sampling run CA2. Station EI 9 has an open period of only three months. Station EI 9 has an open status of three months (March 1-May 31). Sample dates during the open status from 1999 to the present totals only 26 samples. These samples include when the area was classified prohibited (Table 1).

Table 1. Bar Island Bar During the Conditionally Restricted OPEN Period

Station	Class	Count	MFCCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
EI009.00	CR	26	11	2.9	0.28	48	6.9	40	231

Field inspection of critical pollution sources

The area was inspected for lack of boating activity in the mooring field during the open status on February 2nd, March 23rd, April 6th, May 4th and June 2nd, 2010 to confirm that there were fewer than <10 boats with live-aboard crews. Daily monitoring of the CSO flows are carried out before and during harvesting if the area is harvested. All stations within the conditional restricted area meet restricted standards during the open status and lack of boating activity. CSO activity will be reviewed if there is a depuration request. The Bar Harbor Wastewater Treatment Plant operational review was last done in August 2010.

Water sampling compliance history

Due to the conditional management plan being based on the absence of pollution from a wastewater combined sewer outfall for certain times of the year, the NSSP requires monthly water samples when the growing area is in the open status of its conditional classification provided that the water samples collected to satisfy the bacteriological standard for the open status are collected when the growing



area is in the open status. The station that monitors the Bar Island bar (EI 9) was collected monthly in the open status for a total of three in 2010 (Table 2).

Table 2. Station EI 9, 2010 Data

Station	Date	Status	Class	Strategy	Tide	Temp	Adv	Sal	Wind	ColScore
EI009.00	1/4/2010	C	CR	R	HF	1		30	NW	27
EI009.00	2/2/2010	C	CR	R	H	-3		31	NW	<2
EI009.00	3/23/2010	O	CR	R	LF	2	P	30	E	<2
EI009.00	4/6/2010	O	CR	R	E	5		31	NW	<2
EI009.00	5/4/2010	O	CR	R	F	9		31	W	<2
EI009.00	6/2/2010	C	CR	R	HF	11	P	32	W	<2
EI009.00	7/7/2010	C	CR	R	LE	13		32	S	<2
EI009.00	8/3/2010	C	CR	R	HF	17		31	CL	2
EI009.00	9/21/2010	C	CR	R	E	13		32	NW	<2
EI009.00	10/5/2010	C	CR	R	HE	14	P	33	CL	26
EI009.00	11/2/2010	C	CR	R	LE	9		32	NW	<2
EI009.00	12/7/2010	C	CR	R	E	5	P	30	W	4

Analysis-recommendations

Area 47(Part C), Bar Harbor Bar, is a conditionally restricted area that has not been harvested for depuration in recent years and is basically inactive. Requests for depuration digging have not occurred in the period from 1999-2010. Seasonal boating traffic was absent during the current depuration harvest period. Daily monitoring of the CSO flows will be carried out before and during harvesting. All stations within the conditional restricted area met restricted standards during the open status. CSO activity will be reviewed if there is a depuration request. Elevated fecal coliform values were recorded during the summer months (June thru September) of the review period when boating activity is present. The management plan accomplishes its stated purpose. Water quality meets the standard for restricted classification during the open status. There was no depuration harvesting activity from the area in 2010. No recommendations for changes to the current management plan or conditional area classification status are needed at this time.

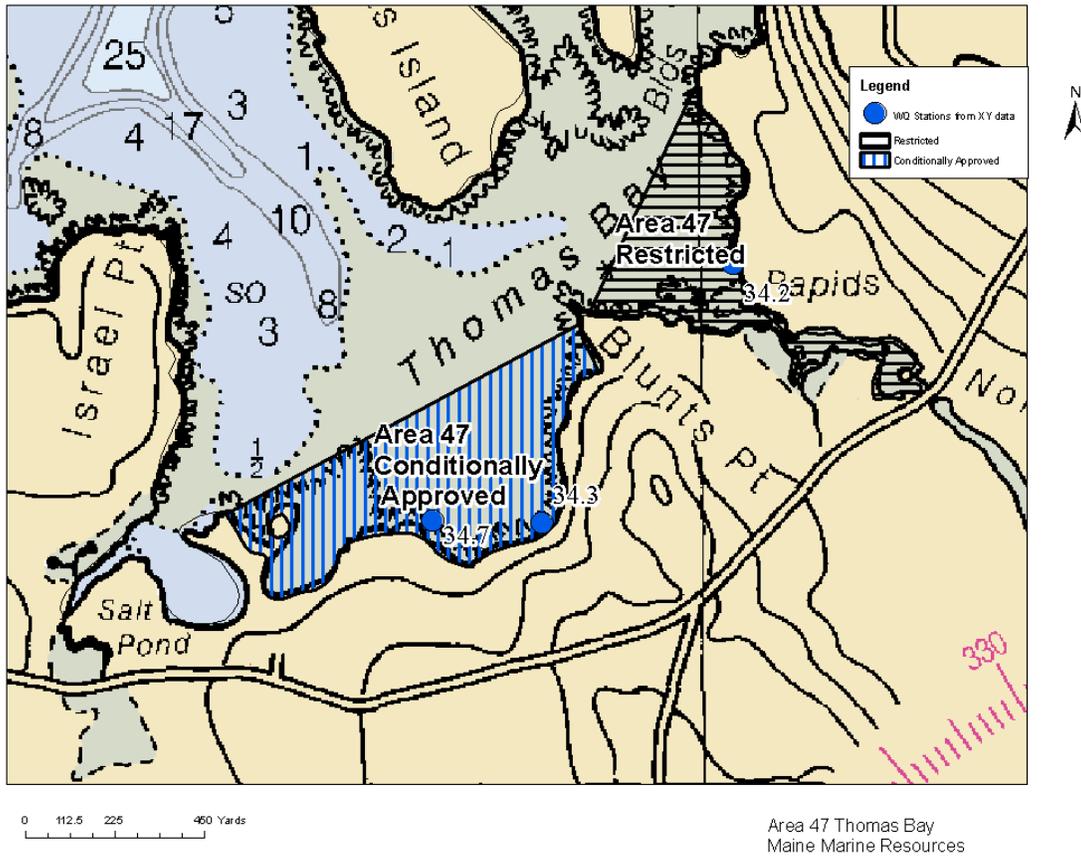


Appendix B. Annual Review of Conditional Area Management Plan Area 47 (Part B)

Growing Area EI; Area 47 (Part B), Thomas Bay, Bar Harbor

Scope

Area No. 47(part B), Thomas Island, is a seasonal conditionally approved area based on occupancy of an RV campground and requires six (6) samples during the open status. The business season is June thru September. The area is conditionally approved from October 1 thru April 30. The closed period is during the “peak season” operating period of a seasonal commercial camping area (“Mount Desert Narrows Campground”). The campground has historically operated May 15 through September 20th. A more detailed description and map of the area is discussed in the management plan.



Compliance with management plan

Samples were collected 7 times from each of the water quality monitoring sites during the open status (1/4, 3/23, 4/6, 4/26, 10/5, 11/2, 12/8). The double sampling in April was necessary due to sea ice cover over the area in February preventing sampling. The campground was inspected on May 4 and June 2, 2010, near the harvest area closure date of April 30 and confirmed that the campground



had not opened for business in the spring. Inspections were completed on September 21, 2010, previous to the harvest area opening date of October 1, to confirm that the campground was closed for the winter. On September 23, 2010 it was confirmed that water quality met the standard for approved classification during the open period.

Adequacy of reporting and cooperation of involved persons

The management plan for this conditional area does not require reporting.

Compliance with conditionally approved-restricted growing area criteria

The sample stations (EI 34.3 and EI 34.7) met the approved standard when in the open status of the conditionally approved classification from October 1 to April 30 (Table 1).

Table 1. Thomas Bay During the Conditionally Approved OPEN Period

Station	Class	Count	MFCCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
EI034.30	CA	30	30	4.2	0.53	112	20.2	31	163
EI034.70	CA	30	30	3.8	0.47	62	15.6	31	163

Field inspection of critical pollution sources

The potential for pollution in the Thomas Bay area comes from seasonal camping activity at a campground in the area. Visual observations are made of the campground at the end of April and in the middle of September to ensure that the campground is not active during the open status of the conditionally approved classification from October 1 to April 20. Approximately 25 (239 total RV/tenting sites) camper sites were occupied with vacant winterized campers. The access roads to the campground were gated.

Water sampling compliance history

Due to the conditional management plan being based on the absence of pollution from a seasonal campground for certain times of the year, the NSSP does not require monthly water samples when the growing area is in the open status of its conditional classification provided that at least six of the water samples collected to satisfy the bacteriological standard for the open status are collected when the growing area is in the open status. The stations that monitor Thomas Bay (EI 34.3 and 34.7) were collected monthly in the open status for a total of six in 2010 (Table 2).

Table 2. Stations EI 34.3 and 34.7, 2010 Data

Station	Date	Status	Class	Strategy	Tide	Temp	Adv	Sal	Wind	ColScore
EI034.30	1/4/10	O	CA	R	H	1		20	NW	2
EI034.30	3/23/10	O	CA	R	F	3	P	30	NE	<2
EI034.30	4/6/10	O	CA	R	HE	6		14	CL	2
EI034.30	4/26/10	O	CA	R	HE	7		30	SW	4
EI034.30	5/4/10	C	CA	R	H	10		30	NW	<2
EI034.30	6/2/10	C	CA	R	H	12	P	31	W	<2



Station	Date	Status	Class	Strategy	Tide	Temp	Adv	Sal	Wind	ColScore
EI034.30	7/7/10	C	CA	R	E	16		30	CL	54
EI034.30	8/3/10	C	CA	R	HF	17		31	CL	2
EI034.30	9/21/10	C	CA	R	H	11		32	NW	6
EI034.30	10/5/10	O	CA	R	HF	14	P	30	CL	6
EI034.30	11/2/10	O	CA	R	E	5		22	NW	112
EI034.30	12/8/10	O	CA	R	F	0	P	28	NW	18
EI034.70	1/4/10	O	CA	R	H	0		6	NW	8
EI034.70	3/23/10	O	CA	R	F	3	P	30	NE	<2
EI034.70	4/6/10	O	CA	R	HE	6		14	CL	<2
EI034.70	4/26/10	O	CA	R	HE	7		30	SW	2
EI034.70	5/4/10	C	CA	R	H	10		31	NW	<2
EI034.70	6/2/10	C	CA	R	H	12	P	32	CL	<2
EI034.70	7/7/10	C	CA	R	E	17		31	NE	2
EI034.70	8/3/10	C	CA	R	HF	17		31	CL	2
EI034.70	9/21/10	C	CA	R	H	12		30	N	2
EI034.70	10/5/10	O	CA	R	HF	13	P	31	N	50
EI034.70	11/2/10	O	CA	R	E	5		28	N	18
EI034.70	12/8/10	O	CA	R	F	2	P	30	NW	4

Analysis-recommendations

It is DMR policy to review water quality prior to reopening a seasonal area to ensure compliance with approved standards. The area will continue to be sampled on a monthly basis to increase the number of data points. Due to the short time this area has been classified conditionally restricted/conditionally approved there is no long term compliance history to review. An historical water sampling review supports the present classifications. Water quality meets the standard for approved classification during the open status of October 1 to April 30. No changes are recommended at this time.

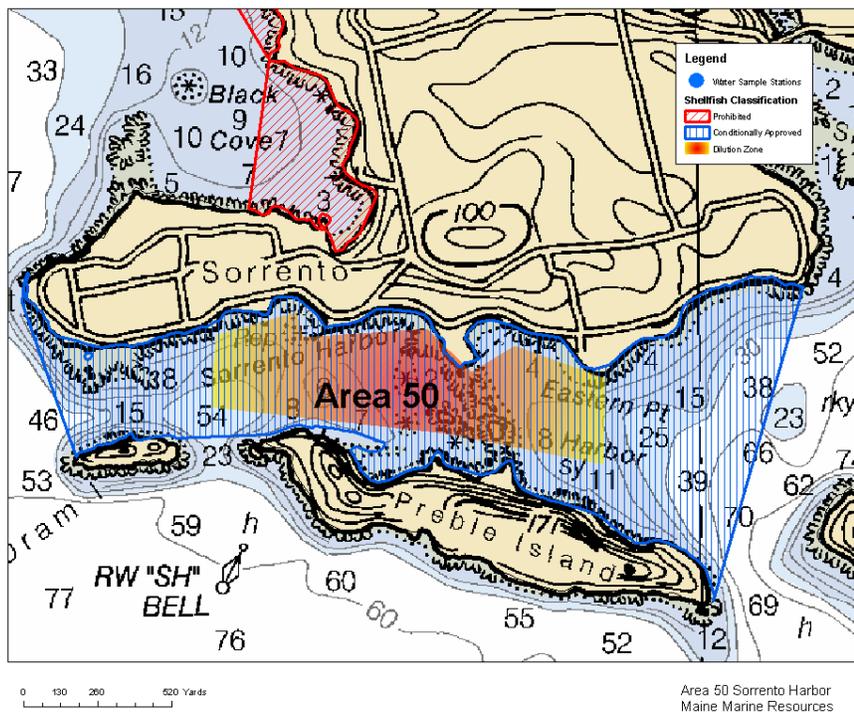


Appendix C. Annual Review of Conditional Area Management Plan Area 50 (Part A)

Growing Area EI Area 50 (part A) Sorrento Harbor, Sorrento

Scope

A portion of Growing Area EI, Sorrento Harbor, Sorrento, is conditionally approved based on the presence or absence of 10 or more boats with heads, which may discharge into Sorrento Harbor. The area is monitored by stations EI 91, 93 and 96. The area was classified conditionally approved in January 1999. DMR evaluated the data, made observations of the moorings, interviewed the harbormaster in regard to usage in month/year, and made the assessment that fewer than 10 boats are in the harbor from October 1 through April 30. Annually, the mooring area has a peak occupancy period from Memorial Day thru Labor Day. The harbor master confirmed the lack of live-aboards with the exception of transient boaters using moorings overnight in the peak cruising months. Few boats are occupied after September or before May. The water quality met approved standards from October 1 through April 30.



Compliance with management plan

In 2010, the seasonal conditional area closed on May 1 and reopened on October 1. The area was visited by the DMR on September 29, 2010 and there were fewer than 10 boats with heads in the area. It was also visited on April 6, 2009 to confirm there were fewer than 10 boats with heads in the water. The seasonal closure is enforced by DMR Marine Patrol.



Adequacy of reporting and cooperation of involved persons-

This management plan requires seasonal checks on boat activity in the harbor. These checks are performed prior to the reopening of the area and at the time of closure to ensure the proper open shellfish season.

Compliance with conditionally approved growing area criteria-

All stations within the conditional area meet conditionally approved standards during the open status (Table 1).

Table 1. Sorrento Harbor Marina Area, Open Status

Station	Class	Count	MFCCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
EI091.00	CA	30	30	2.1	0.15	8	3.3	31	163
EI093.00	CA	30	30	2.3	0.32	36	6.1	31	163
EI096.00	CA	30	30	2.1	0.18	13	3.6	31	163

Field inspection of critical pollution sources-

The potential for pollution in Sorrento Harbor comes from boats with heads that are moored in the harbor. Visual observations are made of the area at the end of September and prior to the closure on April 30 to ensure that there are fewer than 10 boats with heads in the area.

Water sampling compliance history

Due to the conditional management plan being based on the absence of pollution from marinas/moorings for certain times of the year, the NSSP does not require monthly water samples when the growing area is in the open status of its conditional classification provided that at least three of the water samples collected to satisfy the bacteriological standard for the open status are collected when the growing area is in the open status. The stations that monitor Sorrento Harbor (EI 91, 93 and 96) were collected monthly in the open status for a total of seven in 2010 (Table 2).

Table 2. Stations EI 91, 93 and 96, 2010 Data

Station	Date	Status	Class	Strategy	Tide	Temp	Adv	Sal	Wind	ColScore
EI091.00	1/4/10	O	CA	R	HE	0	P	32	N	<2
EI091.00	2/2/10	O	CA	R	F	-1	O	30	NW	<2
EI091.00	3/23/10	O	CA	R	E	5	P	30	NE	<2
EI091.00	4/6/10	O	CA	R	E	6	O	32	SW	<2
EI091.00	5/4/10	C	CA	R	L	9	O	30	NW	<2
EI091.00	6/2/10	C	CA	R	L	8	P	30	SW	<2
EI091.00	7/7/10	C	CA	R	L	21	O	31	SE	<2
EI091.00	8/3/10	C	CA	R	LF		P	31	SE	<2
EI091.00	9/15/10	C	CA	R	LF	13	P	32	NW	<2
EI091.00	10/5/10	O	CA	R	F	11	P	32	N	6



Station	Date	Status	Class	Strategy	Tide	Temp	Adv	Sal	Wind	ColScore
EI091.00	11/2/10	O	CA	R	LE	9	P	32	NW	<2
EI091.00	12/7/10	O	CA	R	E	3	T	31	W	<2
EI093.00	1/4/10	O	CA	R	HE	0	P	32	N	<2
EI093.00	2/2/10	O	CA	R	F	-1	O	32	NW	<2
EI093.00	3/23/10	O	CA	R	E	5	P	31	NE	<2
EI093.00	4/6/10	O	CA	R	E	6	O	32	SW	<2
EI093.00	5/4/10	C	CA	R	LF	10	O	31	NW	<2
EI093.00	6/2/10	C	CA	R	L	7	P	31	SW	<2
EI093.00	7/7/10	C	CA	R	L	18	O	30	SE	<2
EI093.00	8/3/10	C	CA	R	LF		P	30	SE	<2
EI093.00	9/15/10	C	CA	R	LF	13	P	32	NW	<2
EI093.00	10/5/10	O	CA	R	F	11	P	32	N	<2
EI093.00	11/2/10	O	CA	R	E	7	P	32	NW	<2
EI093.00	12/7/10	O	CA	R	E	3	T	31	W	<2
EI096.00	1/4/10	O	CA	R	HE	0	P	32	N	<2
EI096.00	2/2/10	O	CA	R	F	-1	O	32	NW	<2
EI096.00	3/23/10	O	CA	R	LE	5	P	31	NE	<2
EI096.00	4/6/10	O	CA	R	E	6	O	32	SW	<2
EI096.00	5/4/10	C	CA	R	LF	9	O	31	NW	<2
EI096.00	6/2/10	C	CA	R	L	9	P	30	CL	<2
EI096.00	7/7/10	C	CA	R	L	19	O	30	SE	<2
EI096.00	8/3/10	C	CA	R	LF	10	P	30	SE	<2
EI096.00	9/15/10	C	CA	R	LF	14	P	32	NW	<2
EI096.00	10/5/10	O	CA	R	F	11	P	32	N	<2
EI096.00	11/2/10	O	CA	R	E	7	P	32	NW	<2
EI096.00	12/7/10	O	CA	R	E	3	T	32	W	<2

Analysis-recommendations

It is the DMR policy to observe marina areas before closing and reopening to ensure compliance with the management plan. Sorrento Harbor was observed at the end of September for the reopening on October 1. Fewer than 10 boats with heads were in the water. This marina area continues to meet the conditionally approved classification criteria based on boating activity. The open period start date (10/1) and closure date (4/30) continue to be valid. Presently boats are vacating the area in the fall soon enough to meet re-opening criteria, however, it has been noted that the period between boats being present and the area opening date is getting shorter and it may be necessary to extend the closed period to November 1. Warmer and milder fall weather in recent years may be extending the length of the recreational boating season later into the fall. The conditional area encompasses the calculated dilution zone for the moored boats. No recommendations for changes to the current management plan or conditional area classification open status are needed at this time.



Appendix D. Key to Water Quality Table Headers

Station = water quality monitoring station

Class = classification assigned to the station; prohibited (P), restricted (R), conditionally restricted (CR), conditionally approved (CA) and approved (A).

Count = the number of samples evaluated for classification, must be a minimum of 30.

MFCNT = the number of samples evaluated with the MTec method (included in the total Count column)

Geo_Mean = means the antilog (base 10) of the arithmetic mean of the sample result logarithm (base 10).

SDV = standard deviation

Max = maximum score of the 30 data points in the count column

P90 = 90th percentile

APPD_STD = the 90th percentile, at or below which the station would meet approved criteria in the absence of pollution sources or poisonous and deleterious substances.

RESTR_STD = the 90th percentile, at or below which the station would meet restricted criteria.