



GROWING AREA EJ
Schoodic Point, Winter Harbor to Dyer Point, Steuben
ANNUAL REVIEW for 2010

Report Date: 1-30-2012

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APPROVAL

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Date: _____



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Figure 1. Growing Area EJ, with Active Water Stations



Growing Area EJ
Maine Department of Marine Resources
Bureau of Public Health



Executive Summary

This is an annual report for growing area EJ written in compliance with the requirements of the 2009 Model Ordinance and the National Shellfish Sanitation Program.

At the end of the 2010 review year, water quality in the growing area supports the current classifications under the NSSP criteria with the exception of EJ 25 and EJ 29.5. There were three regulation changes during this annual review period. Two (2) were downward classifications from approved to restricted and one (1) put a conditionally approved area into the closed status after the discovery of a failing septic system in the area. Pollution closure areas surrounding licensed discharges are in Bunkers Harbor, Prospect Harbor, Shark Cove and Corea Harbor. No licensed overboard discharges were removed during the 2010 review period. Remaining closures surround shellfish areas that show water quality exceeding the approved criteria. The Birch Harbor conditionally approved area meets its classification standard during the open status and was sampled the required number of times during the open period; however the area was put into the closed status on November 18, 2010 due to a failing septic system at the head of Birch Harbor. The failed system was reported to town officials for remediation. Streams were sampled in Birch Harbor, West Bay and Joy Bay in 2010. Overall, 2010 water quality has declined dramatically in several approved and restricted stations compared with 2008-2009 percentages. All approved and restricted stations were sampled at least 6 times, following the systematic random sampling (SRS) schedule.

The next triennial report is due in 2012 the next sanitary survey report is due in 2018; however the present plans are to complete it in 2011, in order to more evenly spread the survey workload.

Growing Area Description

This growing area straddles the Hancock-Washington County line in eastern Maine (Figure 1). This growing area is bordered on the west by Schoodic Point (Winter Harbor) and on the east by Petit Manan Point (Steuben). The growing area encompasses 60.2 square miles. The northern upland boundary follows US Route 1 and includes the towns of Winter Harbor, Gouldsboro and Steuben. The growing area presently has areas classified as Approved, Prohibited, Conditionally Approved and Restricted. Closures are based on a wastewater treatment facility outfall at the National Park Service Facility on Schoodic Point, a process water discharge at Stinson Canning in Prospect Harbor, clusters of residential licensed overboard discharges in Prospect Harbor, Bunkers Harbor, Shark Cove and Corea Harbor. Workboat moorings are in Bunkers, Prospect and Corea Harbors. Acadia National Park, Schoodic Division, borders the western edge of the growing area. The area has hiking trails and picnic areas with bathroom facilities; there is no camping. Ocean Woods is a commercial campground in Birch Harbor that caters to tenting and only limited recreational vehicles are allowed. Sections of the campground have been divided into house lots.

Current Classification(s)

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



Approved: (14 stations) EJ 2, 2.5, 9, 16, 18, 23, 24, 24.3, 24.9, 26, 27, 32, 33 and 34

New Stations (less than 30 samples): (3 stations) EJ 29.5, 30.5 and 31.5 have less than 30 samples and are therefore not evaluated against a classification standard

Conditionally Approved:

Area No. 52 (Part B), Birch Harbor, Gouldsboro; seasonal conditional area with open status from November 1 through June 30; due to seasonal pollution impacts, (3 stations) EJ 4, 6, 8

Restricted:

Area No. 52 (A5), Prospect Harbor, Gouldsboro; water quality does not meet approved standard, (3 stations) EJ 9, 14, 15

Area No. 52G (part A), Joy Bay, Gouldsboro-Steuben; water quality does not meet approved standard, (3 stations) EJ 28, 30, 31

Area No. 52G (part B), "The Guzzel" Gouldsboro; water quality does not meet approved standard, (1 station) EJ 25

Prohibited:

Area No. 52 (A1), Arey Cove, Gouldsboro; Acadia National Park Wastewater Treatment Plant, (1 station) EJ 113

Area No. 52 (A2), Bunkers Harbor, Gouldsboro; licensed overboard discharges, (1 station) EJ 3

Area No. 52 (A3), Upper end of Birch Harbor, Gouldsboro; water quality does not meet approved standard, (1 station) EJ 7

Area No. 52 (A4), Forbes Stream, Gouldsboro; water quality does not meet approved standard, (1 stations), EJ 14

Area No. 52 (A6), Prospect Harbor, Gouldsboro; licensed overboard discharges and water quality does not meet approved standard, (1 stations) EJ 9

Area No. 52 (A7), Shark Cove, Gouldsboro; licensed overboard discharge, (1 station) EJ 17

Area No. 52 (A8), Corea Harbor and Sand Cove, Gouldsboro; licensed overboard discharges and water quality does not meet approved standard, (3 stations) EJ 18, 21, 22

Please visit the DMR website to view legal notices:

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

Activity during Review Period

November 10, 2010; during routine water sampling a malfunctioning septic system was identified adjacent to the stream entering Birch Harbor (Gouldsboro). The seasonal conditional area No. 52 (Part B), Birch Harbor, Gouldsboro was in the open status. Due to the threat of a bacterial impact on the conditional area, the area was put into the closed status and remains closed at the end of 2010.

December 20, 2010; at the end of 2010, a review of year end P90 data showed water sample stations EJ 28, 29.5 and 30 at the head of Joy Bay, Gouldsboro-Steuben, no longer meeting



approved standards. The current restricted area (Area No. 52G (part A), Joy Bay, Gouldsboro-Steuben) was expanded in size on January 6, 2011.

December 20, 2010; at the end of 2010, a review of year end P90 data showed water sample station EJ 25, at the head of "The Guzzel", Gouldsboro, no longer meeting approved standards. A restricted area (Area No. 52G (part B), "The Guzzel" Gouldsboro) was promulgated on January 6, 2011.

Conditionally Managed Area

Area No. 52 (Part B), Birch Harbor (Gouldsboro) is a seasonal conditionally approved area requiring six (6) samples during the open status. Compliance is based on water quality meeting approved criteria during the open status at stations EJ 4, 6, and 8 from November 1 thru June 30. Geomean and P90 data analysis was done on October 28, 2010 to confirm that the area met approved reopening criteria. Monitoring stations met conditionally approved criteria during the open status (Table 2). Samples were collected 7 times from each of the water quality monitoring stations during the open status. Sample dates during the open period were January 4, February 2, March 23, April 6, May 5, June 2 and November 2, 2010. An EJ 6 sample was made-up on June 16 due to a missed sample because of tide on June 2nd. On November 18, 2010 the area was put in the closed status due to a failing septic system at the head of Birch Harbor. The area remained closed for the remainder of 2010. EJ 4 was sampled adversely after rainfall in the open status and as a flood reopening sample site during flood events. A complete conditional area management plan review is presented in Appendix A.

Water Quality Review and Discussion

Table 1 lists all active approved, restricted and prohibited stations in Growing Area EJ, with their respective geomean and P90 scores for 2010. Please refer to Appendix B for a key to interpreting the headers on the columns of Tables 1 and 2. The approved and restricted standards for each station are also displayed in Tables 1 and 2. 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 sample 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 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 the central files.

All approved and restricted stations met their NSSP classification standard in 2010 with the exception of EJ 25 and EJ 29.5. There are four prohibited sample stations (EJ 3, 17, 21, 22) 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). Restricted stations EJ 14 is just meeting the approved standard but will remain restricted due to the high variability of the water quality. Area P90 scores will be reviewed at the end of 2011 and any classification changes considered at that time. Sample stations EJ 29.5, 30.5 and 31.5 are new area boundary stations, have only 24 or 25 data points and are not evaluated against a classification standard at this time. Sample station EJ 28, 29.5 and 30 now only meet restricted



classification and the restricted area in upper Joy Bay will need to be expanded to the next approved station (EJ 30.5; re-classified from approved to restricted January 6, 2011)

Table 1. Geomean and P90 Scores, Growing Area EJ

| Station | Class | Cnt | MFCnt | GM | SDV | MAX | P90 | Appd_Std | Restr_Std |
|----------|------------|-----|-------|------|------|------|-------|----------|-----------|
| EJ002.00 | A | 30 | 26 | 3 | 0.36 | 36 | 8.8 | 32 | 176 |
| EJ002.50 | A | 30 | 26 | 2.1 | 0.11 | 6 | 2.9 | 32 | 176 |
| EJ003.00 | P | 30 | 26 | 3.3 | 0.61 | 1700 | 20.8 | 32 | 176 |
| EJ007.00 | P | 30 | 28 | 14.3 | 0.75 | 380 | 130.9 | 31 | 169 |
| EJ009.00 | A-boundary | 30 | 26 | 2.3 | 0.21 | 9.1 | 4.4 | 32 | 176 |
| EJ014.00 | R-boundary | 30 | 26 | 5.1 | 0.58 | 150 | 29.1 | 32 | 176 |
| EJ015.00 | R | 30 | 26 | 5 | 0.64 | 1100 | 34.1 | 32 | 176 |
| EJ016.00 | A | 30 | 27 | 2.5 | 0.3 | 33 | 6.1 | 32 | 173 |
| EJ017.00 | P | 30 | 26 | 2.3 | 0.18 | 11 | 3.9 | 32 | 176 |
| EJ018.00 | A | 30 | 26 | 3.6 | 0.6 | 1700 | 21.9 | 32 | 176 |
| EJ021.00 | P | 30 | 26 | 3.9 | 0.48 | 96 | 16.8 | 32 | 176 |
| EJ022.00 | P | 30 | 26 | 3.2 | 0.51 | 138 | 14.7 | 32 | 176 |
| EJ023.00 | A | 30 | 26 | 4.2 | 0.64 | 840 | 28.3 | 32 | 176 |
| EJ024.00 | A | 30 | 27 | 2.7 | 0.46 | 520 | 10.6 | 32 | 173 |
| EJ024.30 | A | 30 | 27 | 3.2 | 0.34 | 28 | 9.1 | 32 | 173 |
| EJ024.90 | A | 30 | 27 | 3.7 | 0.49 | 102 | 16.3 | 32 | 173 |
| EJ025.00 | R | 30 | 28 | 9.1 | 0.61 | 1300 | 55.7 | 31 | 169 |
| EJ026.00 | A | 30 | 27 | 2.9 | 0.45 | 220 | 11.1 | 32 | 173 |
| EJ027.00 | A | 30 | 26 | 2.5 | 0.32 | 36 | 6.7 | 32 | 176 |
| EJ028.00 | R | 30 | 28 | 6.5 | 0.71 | 740 | 53.7 | 31 | 169 |
| EJ029.50 | new | 25 | 25 | 4.9 | 0.67 | 1700 | 37.1 | 31 | 163 |
| EJ030.00 | R | 30 | 28 | 8.5 | 0.72 | 540 | 73 | 31 | 169 |
| EJ030.50 | new | 25 | 25 | 3.1 | 0.55 | 220 | 16.4 | 31 | 163 |
| EJ031.00 | R | 30 | 29 | 3.5 | 0.53 | 560 | 17.4 | 31 | 166 |
| EJ031.50 | new | 24 | 24 | 3.7 | 0.6 | 600 | 22.6 | 31 | 163 |
| EJ032.00 | A | 30 | 26 | 2.7 | 0.46 | 500 | 10.9 | 32 | 176 |
| EJ033.00 | A | 30 | 26 | 3.3 | 0.44 | 56 | 12.4 | 32 | 176 |
| EJ034.00 | A | 30 | 26 | 2.3 | 0.26 | 24 | 5.1 | 32 | 176 |

Table 2 lists all conditionally approved stations in the Birch Harbor seasonal conditional area with their respective geomean and P90 scores for 2010. Data for conditionally approved stations reflects only the open status. All conditionally approved stations met their NSSP classification standard in 2010.

Table 2. Birch Harbor Seasonal Conditional Area, Open Status

| Station | Class | Cnt | MFCnt | GM | SDV | MAX | P90 | Appd_Std | Restr_Std |
|----------|-------------|-----|-------|-----|------|-----|------|----------|-----------|
| EJ004.00 | CA-boundary | 30 | 30 | 2.5 | 0.26 | 14 | 5.6 | 31 | 163 |
| EJ006.00 | CA-boundary | 30 | 26 | 4.7 | 0.55 | 280 | 24.5 | 32 | 176 |
| EJ008.00 | CA | 30 | 30 | 2.8 | 0.38 | 54 | 8.8 | 31 | 163 |



All approved and prohibited stations that were active at the beginning of 2010 were sampled at least 6 times following the systematic random sampling (SRS) schedule (Table 3). Additional samples were collected under adverse conditions at stations EJ 4, 23, 24.9 and 26 for flood re-opening and EJ 4, 23, 25, 28, 29.5 and 30 were sampled to collect additional samples under rainfall conditions. The Birch Harbor conditionally approved stations EJ 4, 6 and 8 were sampled seven (7) times in the open status in 2010.

Table 3. Area EJ Samples Collected in 2010

| Station | Class | Adverse | | Extra | | Random | | Total | Comments |
|----------|-------|---------|------|--------|------|--------|------|-------|--|
| | | Closed | Open | Closed | Open | Closed | Open | | |
| EJ002.00 | A | | | | | | 6 | 6 | |
| EJ002.50 | A | | | | | | 6 | 6 | |
| EJ003.00 | P | | | | | 6 | | 6 | |
| EJ004.00 | CA | 24 | 1 | | | 5 | 7 | 37 | Flood samples Adverse/Open were targeted sampling following rain and wildlife present. |
| EJ006.00 | CA | | | | | 5 | 7 | 12 | |
| EJ007.00 | P | | | 2 | | 6 | | 8 | |
| EJ008.00 | CA | | | | | 5 | 7 | 12 | |
| EJ009.00 | A | | | | | | 6 | 6 | |
| EJ014.00 | R | | | | | | 6 | 6 | |
| EJ015.00 | R | | | | | | 6 | 6 | |
| EJ016.00 | A | | | | | | 6 | 6 | |
| EJ017.00 | P | | | | | 6 | | 6 | |
| EJ018.00 | A | | | | | | 6 | 6 | |
| EJ021.00 | P | | | | | 6 | | 6 | |
| EJ022.00 | P | | | | | 6 | | 6 | |
| EJ023.00 | A | 22 | 1 | | | | 6 | 29 | Flood samples Adverse/Open were targeted sampling following rain and wildlife present. |
| EJ024.00 | A | | | | | | 6 | 6 | |
| EJ024.30 | A | | | | | | 6 | 6 | |
| EJ024.90 | A | 24 | | | | | 6 | 30 | Flood samples |
| EJ025.00 | A | | 1 | | 1 | | 6 | 8 | Adverse/Open were targeted sampling following rain and wildlife |



| Station | Class | Adverse | | Extra | | Random | | Total | Comments |
|----------|-------|---------|------|--------|------|--------|------|-------|--|
| | | Closed | Open | Closed | Open | Closed | Open | | |
| | | | | | | | | | present. |
| EJ026.00 | A | 23 | | | | | 6 | 29 | Flood samples |
| EJ027.00 | A | | | | | | 6 | 6 | |
| EJ028.00 | R | | 1 | | 1 | | 6 | 8 | Adverse/Open were targeted sampling following rain and wildlife present. |
| EJ029.50 | A | | 1 | | 1 | | 6 | 8 | Adverse/Open were targeted sampling following rain and wildlife present. |
| EJ030.00 | R | | 1 | | 2 | | 6 | 9 | Adverse/Open were targeted sampling following rain and wildlife present. |
| EJ030.50 | A | | | | 1 | | 6 | 7 | |
| EJ031.00 | R | | 1 | | | | 6 | 7 | |
| EJ031.50 | A | | | | | | 6 | 6 | |
| EJ032.00 | A | | | | | | 6 | 6 | |
| EJ033.00 | A | | | | | | 6 | 6 | |
| EJ034.00 | A | | | | | | 6 | 6 | |

Figure 2, 3 and 4 are trend graphs of the approved, conditionally approved and prohibited sample stations in the growing area. Station P90 scores are expressed as percents of the approved standard. Conditionally approved values are during the open status only. Overall, 2010 water quality has declined dramatically in several approved and restricted stations compared with 2008-2009 percentages. Increases in percentages, indicating declining water quality over the previous two years, are at approved classified stations EJ 18, 23, 24, 25, 29.5, 30.5 and 31.5. Stations EJ 25 and 29.5 have exceeded the approved standard and will be classified downward (reclassified from approved to restricted January 6, 2011). No cause for the declining water quality has been identified. Conditionally approved stations EJ 4, 6 and 8 have all shown constant percentages of the approved standard indicating unchanged water quality. Restricted station EJ 28 has also shown declining water quality. Stations that are approved or conditionally approved in the open status over 90% of the approved standard are at risk of downward classification and require further assessment. No sample stations in the growing area are at risk at this time, although EJ 23 is approaching 90%. Closed Areas 52 (parts A1, A2, A6, A7 and A8) Schoodic Point to Corea (Winter Harbor-Gouldsboro), are prohibited areas that meet approved standards at EJ 113 and EJ 3, 9, 17 and 21 but can not be reclassified approved because of DEP licensed overboard point source discharges nearby.



Figure 2. Area EJ P90 Score Trends for Approved Stations (expressed as the percent of the approved standard), 2008-2010

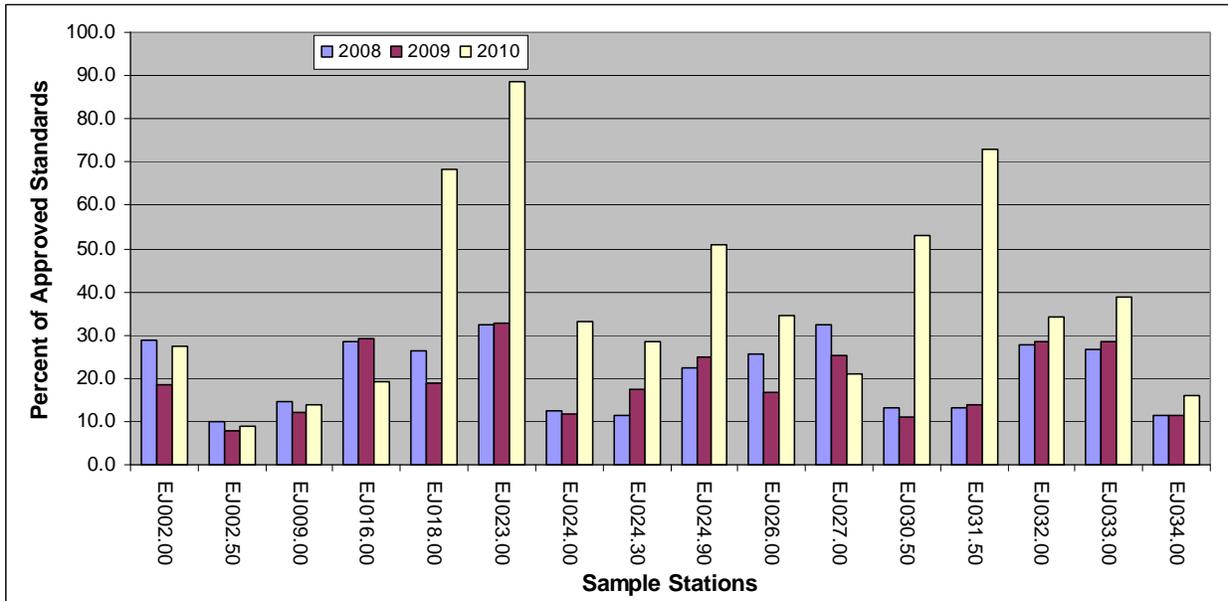


Figure 3. Area EJ P90 Score Trends for Conditionally Approved Stations in the Open Status (expressed as the percent of the approved standard), 2008-2010

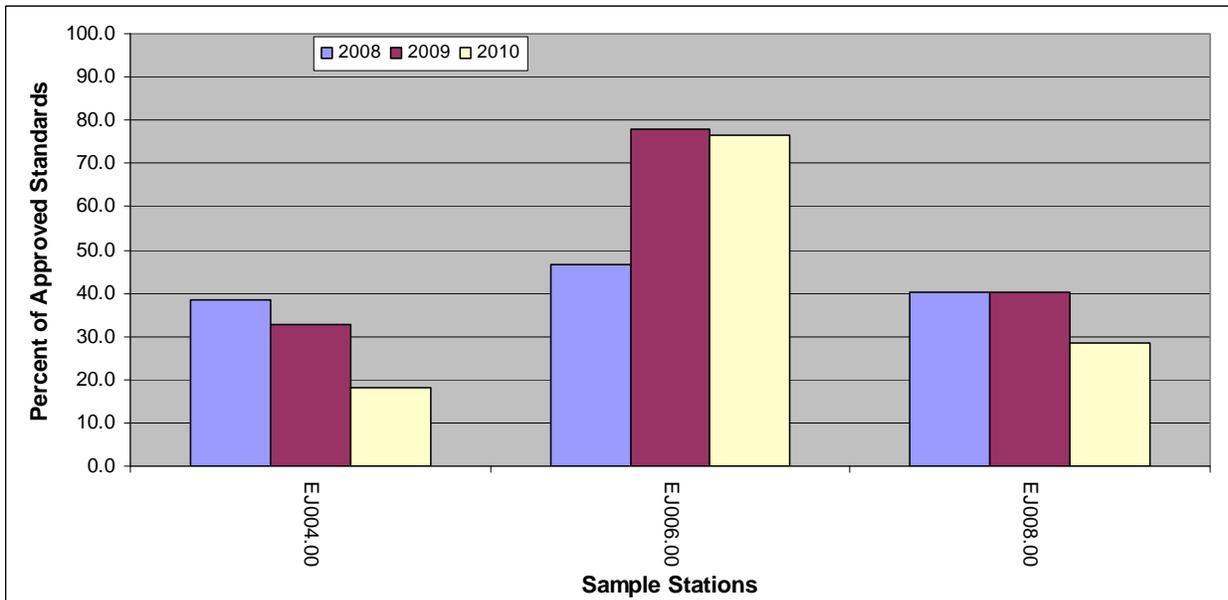
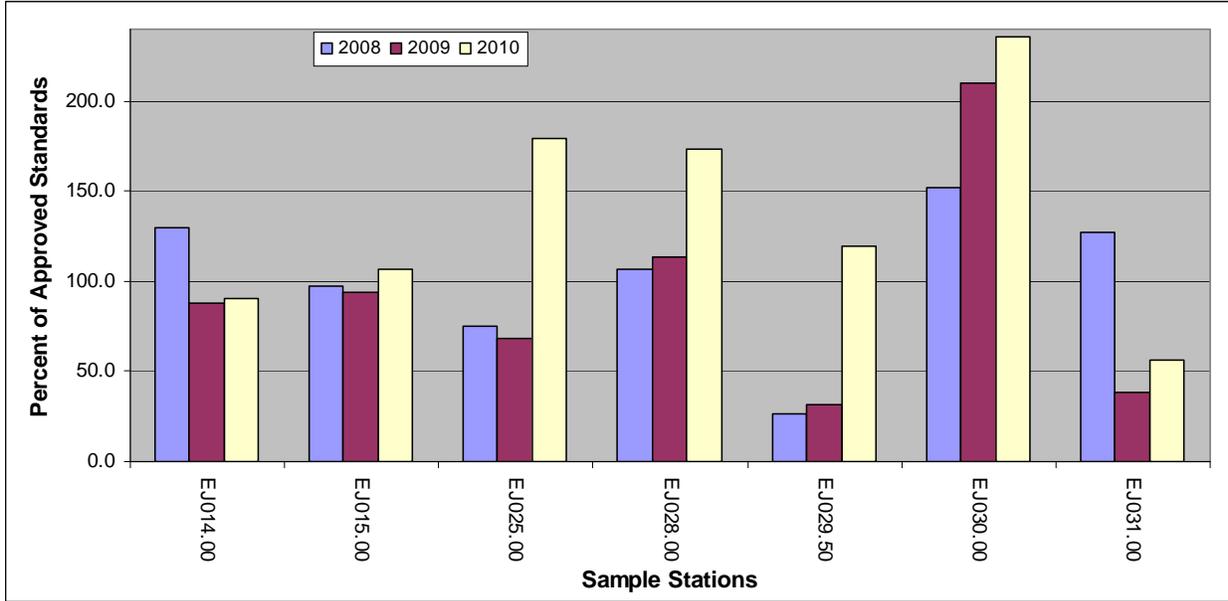




Figure 4. Area EJ P90 Score Trends for Restricted Stations (expressed as the percent of the approved standard), 2008-2010



Upward Classification Changes

There are no recommendations for upward classification changes at this time.

Shoreline Survey Activity

July 12, 2010- Surveyed and sampled an area at the head of Parrit Cove (Steuben). Sample score of an un-named stream that drains into cove near EJ 31 was 130 FC/100ml. The area will remain classified restricted due to high variability of test scores.

July 12, 2010- Surveyed and sampled the Tucker Stream area (Gouldsboro). The sample score of Tucker Stream that drains into cove near EJ 28 was 520 FC/100ml.

July 12, 2010- Surveyed and sampled an un-named culvert at the head of Birch Harbor (Gouldsboro). The sample score of the culvert flow that drains into cove near EJ 7 was 1180 FC/100ml.

July 27, 2010- Surveyed and sampled the Tucker Stream area (Gouldsboro). The sample score of Tucker Stream that drains into cove near EJ 28 was 16 FC/100ml. The area will remain classified restricted due to high variability of test scores.

July 27, 2010- Surveyed and sampled an un-named culvert at the head of Birch Harbor (Gouldsboro). The sample score of the culvert flow that drains into cove near EJ 7 was 520 FC/100ml.



October 28, 2010- Question of malfunctioning system at M32/L44a house at head of Birch Harbor (Gouldsboro); sample of surface seep had a score of greater than 1600 FC/100ml; called Gouldsboro town code officer.

November 15, 2010- Surveyed and sampled an area at the head of Birch Harbor (Gouldsboro). Sample score of an un-named stream above the tide was 8 FC/100ml. The stream was eliminated as a pollution source causing declining water quality at EJ 7.

November 15, 2010- Re-visited Birch Harbor (Gouldsboro) location, broken piping dug up and ditching;

November 16, 2010- Birch Harbor (Gouldsboro) spoke with code officer and information was contractor and owner repairing malfunctioning system; November 18, C52 conditionally approved area put in closed status until system repaired; December 20 confirmed system repaired with the Gouldsboro code officer.

November 15, 2010- Joy Bay survey conducted; question of failing pumped in-ground system next to Tunk Stream (Steuben); sampled but sample too contaminated with sediment to read bacterial results. The system needs to be re-sampled and surveyed in the spring.

November 15, 2010- House on Whitten-Parrit Stream (Twp 7) may have septic overflow. Sampled with score greater than 1600 FC/100ml. Took another water sample at original site and hole in lawn downhill from leach field.

November 15, 2010- Surveyed and sampled West Bay Stream ("The Guzzel") area. Sample score of the West Bay Stream above the tide was 2 FC/100ml. No pollution source was identified to be causing declining water quality at EJ 25.

November 15, 2010- Surveyed and sampled an area along the Rogers Point Road (Steuben). Sample score of an un-named stream above the tide was 2 FC/100ml. No pollution source was identified to be causing declining water quality at EJ 30.

November 29, 2010- Re-sampled a likely septic overflow at house on Whitten-Parrit Stream (Twp 7); fecal coliform score greater than 1600 FC/100ml. Sample score of Whitten-Parrit Stream above septic overflow was 4 FC/100ml. Sample supports the likely source of pollution is a septic overflow. (Dyed system red on January 6, 2011; no evidence of dye in morning or afternoon of January 6; January 11, still no evidence of dye.)

Aquaculture/Wet Storage Activity

There is no wet storage or aquaculture activity in the growing area.

Recommendation for Future Work



1. Continue to investigate the source of pollution in Joy Bay.
2. Investigate the source of the pollution in Mill Pond Stream (EJ 25)
3. Investigate the source of the pollution causing the rapid decline in water quality at EJ 23.
4. Investigate the source of the pollution causing the rapid decline in water quality at EJ 18.
5. Investigate the source of the pollution causing the rapid decline in water quality at EJ 25.

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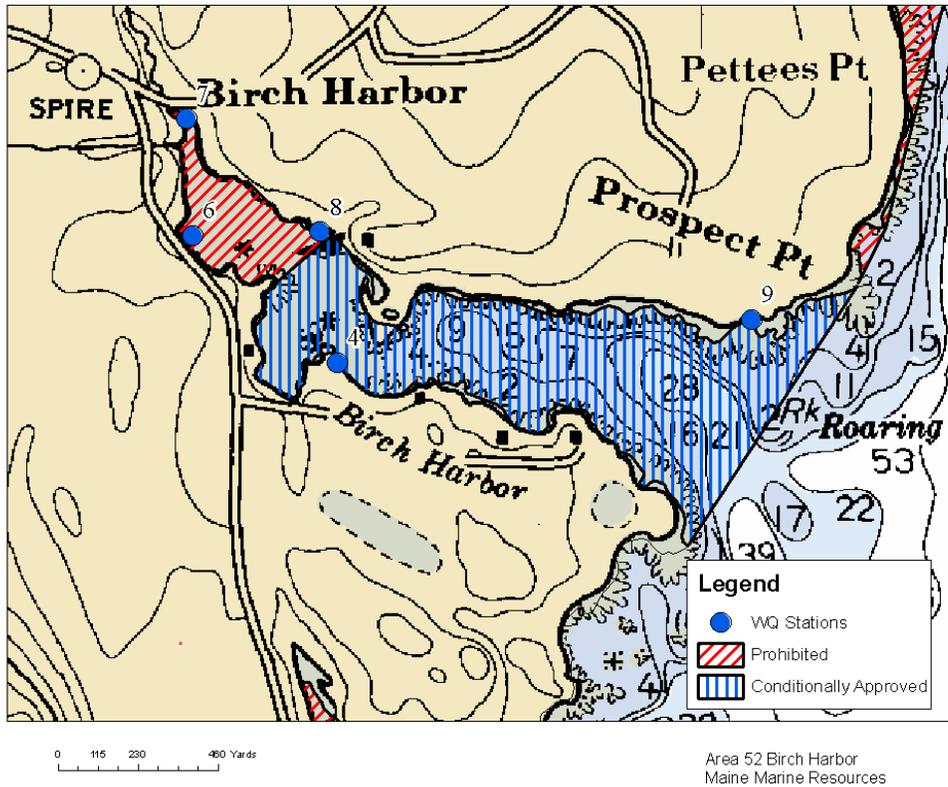


Appendix A. Annual Review of Conditional Area Management Plan Area No. 52 (Part B)

Growing Area EJ; Area No. 52 (Part B), Birch Harbor, Gouldsboro

Scope

Area No. 52 (part B), Birch Harbor, is a seasonal conditionally approved area based on water quality meeting approved standards from November 1 thru June 30. The area requires six (6) samples during the open status. A more detailed description 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 stations during the open status. Geomean and P90 data analysis was done on October 28, 2010 to confirm that the area met approved reopening criteria. Sample dates during the open period were January 4, February 2, March 23, April 6, May 5, June 2 and November 2, 2010. An EJ 6 sample was made-up on June 16 due to a missed sample because of tide on June 2nd. On November 18, 2010 the area was put in the closed status due to a failing septic system at the head of Birch



Harbor. The area remained closed for the remainder of 2010. Specific sample dates are documented in the MARVIN sample database.

Adequacy of reporting and cooperation of involved persons

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

Compliance with conditionally approved growing area criteria

The sample stations (EJ 4, 6 and 8) met the approved standard when in the open status of the conditionally approved classification from November 1 to June 30.

Table 1. Birch Harbor During the Conditionally Approved OPEN Status

| Station | Class | Cnt | MFCnt | GM | SDV | MAX | P90 | Appd_Std | Restr_Std |
|----------|-------------|-----|-------|-----|------|-----|------|----------|-----------|
| EJ004.00 | CA-boundary | 30 | 30 | 2.5 | 0.26 | 14 | 5.6 | 31 | 163 |
| EJ006.00 | CA-boundary | 30 | 26 | 4.7 | 0.55 | 280 | 24.5 | 32 | 176 |
| EJ008.00 | CA | 30 | 30 | 2.8 | 0.38 | 54 | 8.8 | 31 | 163 |

Field inspection of critical pollution sources

The pollution in the Birch Harbor area is coming from an unconfirmed source resulting in poor water quality from July 1 to October 31.

Water sampling compliance history

Due to the conditional management plan being based on the absence of seasonal pollution 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 Birch Harbor (EJ 4, 6 and 8) were collected in the open status for a total of seven in 2010 (Table 2).

Table 2. Stations EJ 4, 6 and 8, 2010 Data

| Station | Date | Strategy | Status | Class | Adv | Tide | Temp | Sal | Wind | ColScore |
|----------|---------|----------|--------|-------|-----|------|------|-----|------|----------|
| EJ004.00 | 1/4/10 | R | O | CA | P | H | 0 | 32 | N | <2 |
| | 2/2/10 | R | O | CA | O | HF | -1 | 32 | NW | <2 |
| | 3/23/10 | R | O | CA | P | E | 5 | 30 | NE | 2 |
| | 4/6/10 | R | O | CA | O | E | 6 | 31 | CL | <2 |
| | 5/5/10 | R | O | CA | P | E | 9 | 30 | NW | <2 |
| | 6/2/10 | R | O | CA | P | LF | 8 | 31 | SE | 4 |
| | 7/7/10 | R | C | CA | O | LE | 18 | 31 | SW | <2 |
| | 8/3/10 | R | C | CA | P | L | 11 | 30 | SE | 2 |
| | 9/15/10 | R | C | CA | P | H | 13 | 30 | NW | <2 |
| | 10/5/10 | R | C | CA | P | HF | 11 | 30 | N | 10 |



| Station | Date | Strategy | Status | Class | Adv | Tide | Temp | Sal | Wind | ColScore |
|----------|---------|----------|--------|-------|-----|------|------|-----|------|----------|
| | 11/2/10 | R | O | CA | P | E | 7 | 32 | N | <2 |
| | 12/8/10 | R | C | CA | O | H | 2 | 32 | NW | <2 |
| EJ006.00 | 1/4/10 | R | O | CA | P | H | 0 | 31 | N | <2 |
| | 2/2/10 | R | O | CA | O | HF | 0 | 31 | NW | <2 |
| | 3/23/10 | R | O | CA | P | E | 5 | 10 | NE | 9.1 |
| | 4/6/10 | R | O | CA | O | E | 6 | 32 | CL | <2 |
| | 5/5/10 | R | O | CA | P | E | 9 | 30 | NW | 2 |
| | 6/16/10 | R | O | CA | O | H | 12 | 32 | SW | <2 |
| | 7/12/10 | R | C | CA | P | H | 18 | 28 | S | 40 |
| | 8/10/10 | R | C | CA | P | HE | 8 | 32 | NW | 13 |
| | 9/15/10 | R | C | CA | P | HE | 13 | 30 | NW | 13 |
| | 10/5/10 | R | C | CA | P | HF | 12 | 25 | N | 34 |
| | 11/2/10 | R | O | CA | P | E | 7 | 29 | N | 8 |
| | 12/8/10 | R | C | CA | O | H | 2 | 30 | NW | <2 |
| EJ008.00 | 1/4/10 | R | O | CA | P | H | 0 | 31 | N | <2 |
| | 2/2/10 | R | O | CA | O | HF | -1 | 31 | NW | <2 |
| | 3/23/10 | R | O | CA | P | E | 5 | 30 | NE | <2 |
| | 4/6/10 | R | O | CA | O | E | 5 | 32 | CL | <2 |
| | 5/5/10 | R | O | CA | P | E | 9 | 30 | NW | <2 |
| | 6/2/10 | R | O | CA | P | LF | 9 | 30 | SE | <2 |
| | 7/7/10 | R | C | CA | O | LE | 18 | 31 | SW | <2 |
| | 8/3/10 | R | C | CA | P | L | 11 | 31 | SE | <2 |
| | 9/15/10 | R | C | CA | P | HE | 13 | 32 | NW | <2 |
| | 10/5/10 | R | C | CA | P | HF | 11 | 30 | N | 10 |
| | 11/2/10 | R | O | CA | P | E | 8 | 32 | N | <2 |
| | 12/8/10 | R | C | CA | O | H | 2 | 30 | NW | <2 |

Analysis-recommendations

It is DMR policy to review water quality prior to reopening a seasonal area to ensure compliance with approved standards. Water quality was reviewed October 28, 2010 and met reopening criteria. The area will continue to be sampled on a monthly basis to increase the number of data points. An historical water sampling review supports the present classification. Water quality meets the standard for approved classification during the open status of November 1 to June 30. No changes are recommended at this time.



Appendix B. 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.