



GROWING AREA EG

Newbury Neck, Surry to Wonderland, Southwest Harbor

**Triennial Report
2020-2022**

**Final
Hannah Horecka, Scientist II**



Field Observations of Pollution Sources

On June 29th, 2020, a drive through survey of growing area EG was completed by DMR staff and no new problems were discovered. No new pollution sources were observed during sample collection.

On July 6th, 2021, a drive through survey of growing area EG was completed by DMR staff and no new problems were discovered. No new pollution sources were observed during sample collection.

On June 29th, 2023 volunteers were trained by DMR staff for MST testing of water quality sites EG025.00 and EG031.00. A drive through survey of growing area EG was completed by DMR staff on October 26th and November 18th, 2022 and no new problems were discovered. No new pollution sources were observed during sample collection. At end of year 2022 OBD DEP ID 2858 was reported removed in 2022. Actual removal date is May 7th, 2021.

Review of Water Quality Results

Table 1 lists all Approved, Restricted, and Prohibited stations in Growing Area EG with their respective geomean and P90 calculations for 2022.

Refer to Appendix A for a key to interpreting the headers on all tables for the Geomean and P90 scores (Table 1, Table 5).

Table 1. Geomean and P90 Scores, Growing Area EG Approved, Restricted, Prohibited stations, 2022. Geomeans and P90s not meeting current classifications are highlighted in red.

Station	Class	Count	GM	SDV	MAX	P90	Min Date
EG007.50	P	30	5.8	0.53	114	27.8	5/30/2018
EG008.50	P	30	3.7	0.54	280	18.8	5/30/2018
EG009.00	P	30	4.3	0.47	86	17.5	5/30/2018
EG011.00	P	30	2.5	0.35	96	7.4	4/23/2018
EG016.00	P	30	2.7	0.29	25	6.4	5/30/2018
EG019.00	A	30	3.2	0.33	28	8.7	5/30/2018
EG020.50	A	30	2.9	0.38	44	9.1	5/30/2018
EG021.00	A	30	2.5	0.27	22	5.7	5/30/2018
EG023.00	A	30	2.8	0.57	1520	15.6	6/6/2018
EG024.00	A	30	4.2	0.44	35	15.7	6/6/2018
EG026.00	A	30	1.9	0.07	4	2.4	6/6/2018
EG027.00	A	30	2.6	0.28	22	6.1	6/6/2018
EG028.00	A	30	2.3	0.22	14	4.6	6/14/2018
EG029.00	A	30	2.8	0.56	560	15.3	6/6/2018
EG030.80	A	30	2.2	0.23	26	4.5	4/19/2016
EG032.00	A	30	2.5	0.34	34	7.1	7/25/2018
EG033.00	A	30	3.1	0.44	88	11.8	7/25/2018
EG033.90	A	30	3.3	0.5	130	14.8	5/1/2019



Station	Class	Count	GM	SDV	MAX	P90	Min Date
EG035.00	A	30	3.9	0.51	58	18	12/4/2018
EG036.00	A	30	2.4	0.28	42	5.7	7/25/2018

CAMP Reviews, Inspection Reports, and Performance Standards

The Union River Bay in Surry, Ellsworth, and Trenton is classified as Conditionally Approved based on operation of the Ellsworth WWTF. This area is monitored by stations EG 2, 4, 5, 7, 14, 16.5, and 17. Ellsworth WWTF personnel adequately report WWTF malfunctions and high flow events at appropriate times. Marine Patrol and/or local Shellfish Wardens monitor illegal harvesting activity for this area during the closed period. This management plan remains in compliance.

Table 2. Union River Bay WWTF Conditional Area; Geometric Mean, Count and P90 (OPEN status). Geomeans and P90s not meeting current classifications are highlighted in red.

Station	Class	Count	GM	SDV	MAX	P90	Min Date
EG002.00	CA	30	2.6	0.32	22	6.9	7/6/2020
EG004.00	CA	30	3.1	0.43	138	11.3	7/6/2020
EG005.00	CA	30	3.9	0.46	74	15.4	7/6/2020
EG007.00	CA	30	3.1	0.35	31	9.1	7/6/2020
EG014.00	CA	30	2.6	0.31	25	6.7	7/6/2020
EG016.50	CA	30	3.1	0.43	120	11.1	7/8/2020
EG017.00	CA	30	2.4	0.25	27	5.2	7/6/2020

Goose Cove in Trenton is classified as Conditionally Approved with an open status of December 1st to May 31st based on seasonal variation in water quality. This conditional area is monitored by station EG 20. Marine Patrol and/or local Shellfish Wardens monitor illegal harvesting activity for this area during the closed period. This management plan remains in compliance.

Table 3. Goose Cove Seasonal Conditional Area; Geometric Mean, Count and P90 (OPEN status). Geomeans and P90s not meeting current classifications are highlighted in red.

Station	Class	Count	GM	SDV	MAX	P90	Min Date
EG020.00	CA	30	3.7	0.49	200	16.3	2/13/2018

Northwest Harbor in Bar Harbor is classified as Conditionally Approved with an open status of November 1st to June 30th based on seasonal variation in water quality. This conditional area is monitored by station EG 25. Marine Patrol and/or local Shellfish Wardens monitor illegal harvesting activity for this area during the closed period. This management plan remains in compliance.



Table 4. Northwest Harbor Seasonal Conditional Area; Geometric Mean, Count and P90 (OPEN status). Geomeans and P90s not meeting current classifications are highlighted in red.

Station	Class	Count	GM	SDV	MAX	P90	Min Date
EG025.00	CA	30	2.9	0.35	32	8.4	4/5/2017

Pretty Marsh Harbor in Mount Desert is classified as Conditionally Approved with an open status of October 1st to May 31st based on seasonal variation in water quality. This conditional area is monitored by station EG 31. Marine Patrol and/or local Shellfish Wardens monitor illegal harvesting activity for this area during the closed period. This management plan remains in compliance.

Table 5. Pretty Marsh Harbor Seasonal Conditional Area; Geometric Mean, Count and P90 (OPEN status). Geomeans and P90s not meeting current classifications are highlighted in red.

Station	Class	Count	GM	SDV	MAX	P90	Min Date
EG031.00	CA	30	4.5	0.54	92	22.9	10/31/2016

Overview of Pollution Sources

Permitted Discharges

The current listings of National Pollution Discharge Elimination System (NPDES) and State Licensed Discharge Sites for growing area EG are shown in Table 6. The closure area for each of these sites is also shown. All overboard discharges (OBDs) are located in current Prohibited areas. One OBD (2858) was reported removed in 2022. Closure sizes are appropriate. Single OBD systems associated with more than one residence will have multiple permit IDs.

Table 6. Federal and State Licensed Discharges

Closure Area	Permit ID	Type	Facility	Water Body
P1	ME0102593	Treated wastewater	City of Ellsworth POTW, sand filter	Union River
P1	ME0102865	Treated wastewater	City of Ellsworth POTW	Union River
P1	ME0036641	Non-contact cooling water	Black Bear Hydro Partners	Union River
P1	2277	OBD	Residential	Contention Cove
P4	2368	OBD	Residential	Bass Harbor
P4	2419	OBD	Residential	Bass Harbor
P4	2982	OBD	Commercial	Bass Harbor
P4	3996	OBD	Commercial	Bass Harbor
P4	5109	OBD	Residential	Bass Harbor
P4	5479	OBD	Residential	Bass Harbor



Closure Area	Permit ID	Type	Facility	Water Body
P4	6108	OBD	Commercial	Bass Harbor
P4	6305	OBD	Residential	Bass Harbor
P4	6427	OBD	Commercial	Bass Harbor
P4	6582	OBD	Residential	Bass Harbor
P4	6674	OBD	Residential	Bass Harbor
P4	6799	OBD	Residential	Bass Harbor
P4	6800	OBD	Residential	Bass Harbor
P4	7221	OBD	Residential	Bass Harbor
P4	7222	OBD	Residential	Bass Harbor
P4	7239	OBD	Residential	Bass Harbor
P4	7313	OBD	Residential	Bass Harbor
P4	7403	OBD	Commercial	Bass Harbor
P4	7697	OBD	Residential	Bass Harbor

Residential

All residential pollution sources are reported to the local plumbing inspector (LPI). Once the system has been documented as being fixed, staff members from DMR can re-assess the water quality data and shoreline survey information to determine if the area is safe for shellfish harvest. Table 7 shows all new and pre-existing pollution sources in area EG that are considered discharges into the Growing Area and affect water quality. All residential pollution sources are within appropriately sized closures.

Table 7. Growing Area EG Residential Pollution Sources

Growing Area Section	Location ID	Date Surveyed	Direct or Indirect	Problem	Description	Town
P2	EG016-166	2019	Indirect	Yes	Malfunctioning Cesspool	Trenton
P3	EG034-12	20219	Indirect	Yes	Malfunctioning Cesspool	Trenton

Non-point Pollution Sources

Freshwater streams, drainages and tidal creeks are the major source of non-point discharge into Growing Area EG. Because of this, streams may be treated like point source discharges and may have dilution areas around them if they impact water quality in the area. No samples were taken from freshwater streams during the three-year review period.

Marinas

The marina community in Maine only operates for a portion of the year due to adverse winter weather conditions. Of the 5 marinas, two are in Prohibited areas and three are minor anchorages for day-use lobster boats and day-use sail and pleasure boats. They are generally unoccupied while anchored in the marina and are not identified as a pollution risk due to the number of boats and types of usage.

Table 8. Growing Area EG Marinas



Growing Area Section	Name	Town	Waterbody
P1	Ellsworth Town Landing	Ellsworth	Union River
N/A	Carrying Place	Surry	Carrying Place
N/A	Bartlett Island	Mount Desert	Bartlett Narrows
N/A	Bartlett's Landing	Mount Desert	Bartlett Narrows
P4	Bass Harbor	Tremont	Bass Harbor

Agriculture Activities

No significant sources of agricultural pollution were identified during the 2019 shoreline survey. There are no identified slaughter houses, large scale manure spreading operations or garden centers in the area.

Industrial Pollution

There are no major industrial pollution sites in growing area EG such as chemical plants, steel mills, ship yards, or refineries. Black Bear Hydro Partners, LLC has a NPDES permit for cooling water discharge at the Union River Dam (Ellsworth Hydro Project) and is contained in a Prohibited area. None of the small industries (small boat builders and boat storage yards) were identified as pollution sources during the 2019 survey. All the shellfish areas adjacent to the businesses meet their present area classifications.

No small individual storage tanks for gasoline and diesel were noted outside of Prohibited areas 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.

WWTP, Pump Stations and CSO Pollution Areas

Ellsworth WWTF: The Ellsworth WWTF MEPDES permit allows for an average daily flow of 1.62 mgd and the end of the outfall is in 10 feet of water at mean low water. No changes have occurred at this plant therefore the current Prohibited area (P1) is sufficient for the required closure.

Conservation/Recreation Areas (beaches, trails, etc.)

This area of the Maine coast is considered a major tourism area. There is a park at Indian Point in Bar Harbor that offers day use only. There are also areas near Ship Harbor and Wonderland in Southwest Harbor that are used for day-hikes by visitors.

Comprehensive Report of Findings

Emergency Closures: The reports summarizing emergency closures such as flood and biotoxin closures for the entire state are in the DMR central files.

Reclassifications: Reclassification addendums to the sanitary survey report are in the DMR central files.

Summary

For the review period of 2020-2022, water quality has remained consistent, except two stations degrading in 2020 (EG 25 and 31). Except EG 25 and 31 which were downgraded to Conditionally Approved in early 2021, all stations have met compliance both with the number of samples required, but also with the geomean and P90 scores. EG 25 continues to show improvement at end of year 2022 and can be upgraded from Conditionally



Approved to Approved due to water quality meeting approved standards year-round and no direct pollution sources found during the 2019 shoreline survey. Additionally, Duck Cove (Tremont) was reclassified from Prohibited to Approved on July 7, 2022 due to removal of an OBD,

Overall water quality and shoreline survey results meet the NSSP Model Ordinance requirements. All conditional area management plans continue to achieve compliance.

Table 9. Area EG Sample Count Tables, 2022

Station	Class	Closed	Open	Total	Samples Required	Comments
EG002.00	CA	8	12	20	12	flood
EG004.00	CA		12	12	12	
EG005.00	CA		12	12	12	
EG007.00	CA		12	12	12	
EG007.50	P	7		7	6	
EG008.50	P	7		7	6	
EG009.00	P	7		7	6	
EG011.00	P	7		7	6	
EG014.00	CA		12	12	12	
EG016.00	P	7		7	6	
EG016.50	CA		12	12	12	
EG017.00	CA		12	12	12	
EG019.00	A	12	7	19	6	flood
EG020.00	CA	6	6	12	6	
EG020.50	A		7	7	6	
EG021.00	A		7	7	6	
EG023.00	A		7	7	6	
EG024.00	A		7	7	6	
EG025.00	CA	4	8	12	8	
EG026.00	A		7	7	6	
EG027.00	A		7	7	6	
EG028.00	A		7	7	6	
EG029.00	A	3	7	10	6	flood
EG030.80	A		7	7	6	
EG031.00	CA	4	8	12	8	
EG032.00	A		7	7	6	
EG033.00	A	2	7	9	6	flood
EG033.90	A		7	7	6	
EG035.00	A		7	7	6	
EG036.00	A		7	7	6	



Appendix A.

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), Investigative (X) and Approved (A).

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

GM = 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, Approved standard is 31, Restricted standard is 163

Min_Date = oldest date sampled included in the calculations.

Reference Material

An interactive map is available on the DMR website for reference. This map includes water quality station locations, end of year P90 scores, current classifications, and other information. [Shellfish Closures and Aquaculture Leases Map | Department of Marine Resources \(maine.gov\)](#)