



**GROWING AREA EP**

**Henry Point, Jonesport to Sea Wall Point, Roque Bluffs; including Mason Bay,  
Chandler River, Englishman Bay, Englishman River, and Roque Island.**

**ANNUAL REVIEW for 2010**

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**APPROVAL**

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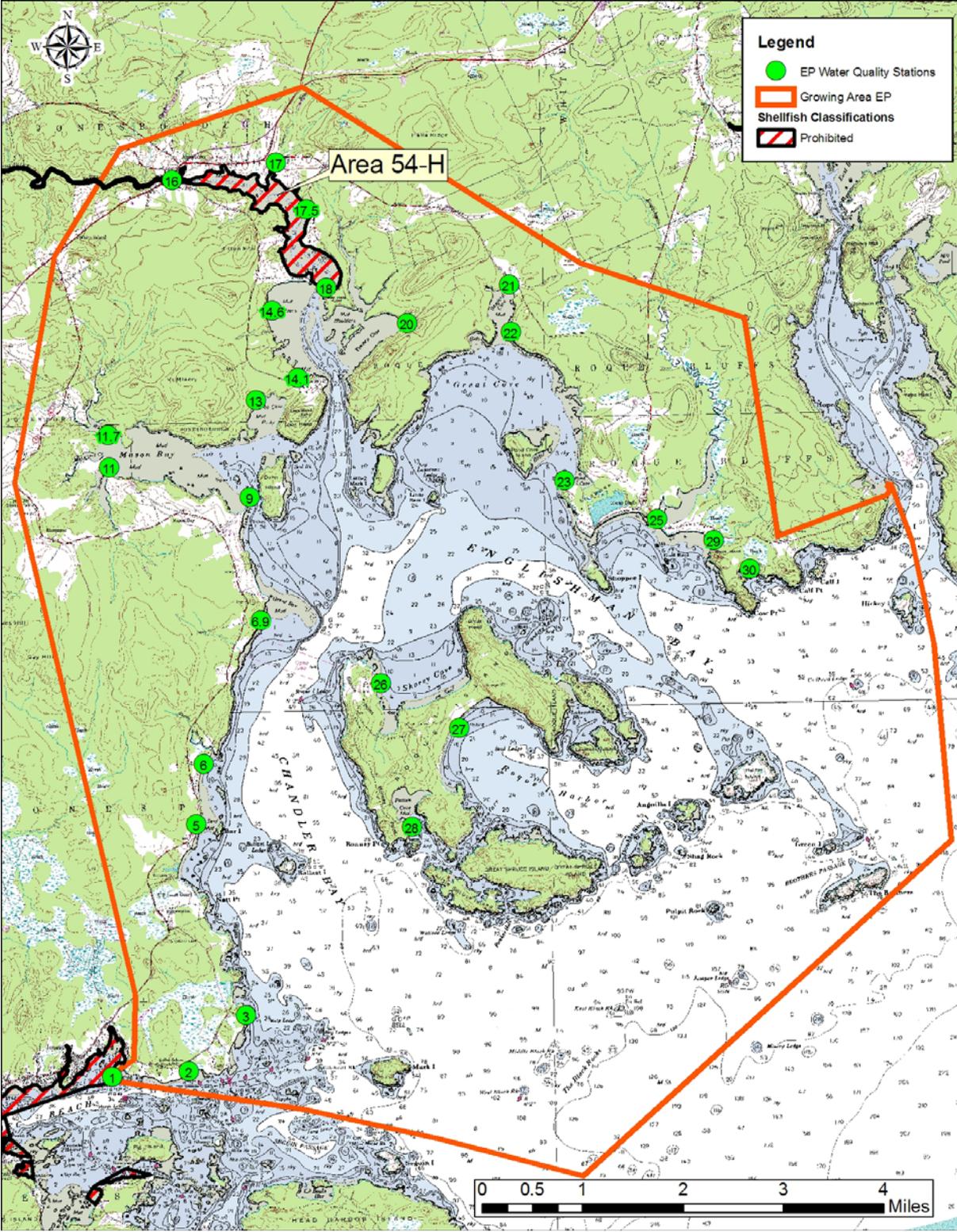
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Figure 1. Growing Area EP, with Active Water Quality Stations





## Executive Summary

This is an annual report for growing area EP written in compliance with the requirements of the 2007 Model Ordinance and the National Shellfish Sanitation Program.

At the end of 2010, water quality at all stations supported the current NSSP classifications. No downward reclassifications were required and no upward reclassifications are being proposed as a result of this annual review. There have been no new water quality stations added or any deactivated.

A full shoreline survey of the Chandler River in the vicinity of Jonesboro was conducted by the Maine DEP during the 2008 and 2009 seasons. Problems found in that survey are still uncorrected and continue to impact the upper Chandler River (Area No. 54-H).

The next triennial report is due in 2011; the next sanitary survey report is due in 2020.

## Growing Area Description

Growing area EP extends from the eastern end of Moosabec Reach at Henry Point, Jonesport to Sea Wall Point on the southwest side of Little Kennebec Bay in Roque Bluffs. This area includes all of Englishman Bay, Roque Island, and numerous small harbors and small streams in the towns of Jonesport, Jonesboro, and Roque Bluffs. Growing area EP is a rural area with sparse population. Land use is predominantly residential with some light commercial use including small boat building and repair shops, blueberry fields, and a golf course. There are no municipal wastewater treatment plants within the boundaries of this growing area. Drive through surveys during water sampling runs show changes being primarily residential growth in the form of new homes built along the waterfront or old camps being replaced by new, larger homes.

## Current Classification(s)

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

### Approved

- Sample stations associated with approved classification; EP 1, 2, 3, 5, 6, 6.9, 9, 11, 11.7, 13, 14.1, 14.6, 18, 20, 21, 22, 23, 25, 26, 27, 28, 29, & 30.

### Prohibited

- Area No. 54-H, Chandler River, Jonesboro, prohibited due to water quality exceeding approved standards. Sample stations associated with classification: EP 16, 17, & 17.5.

Please visit the DMR website to view legal notices:



[http://www.maine.gov/dmr/rm/public\\_health/closures/closedarea.htm#EP](http://www.maine.gov/dmr/rm/public_health/closures/closedarea.htm#EP)

### Activity during Review Period

On March 8, 2010, Area No. 54-H was amended to extend the prohibited area in the Chandler River down to Deep Hole Point, after water quality at station EP 17.5 no longer met approved standards.

### Water Quality Review and Discussion

Table 1 lists all active approved and prohibited stations in growing area EP, with their respective Geomean and P90 calculations for 2010. Please refer to Appendix A for a key to interpreting the headers on the columns of Table 1. The approved and restricted standards for each station are also displayed in Table 1. 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 verses 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 central files. All approved stations met their NSSP classification standard in 2010.

**Table 1. Geomean and P90 Scores, Growing Area EP, 2005-2010**

Station	Class	Count	MFCOUNT	GeoMean	SDV	MAX	P90	Appd_Std	Restr_Std
EP001.00	A	30	28	3.2	0.39	40	10.4	31	169
EP002.00	A	30	28	3.8	0.61	320	23.6	31	169
EP003.00	A	30	28	2	0.12	8	2.9	31	169
EP005.00	A	30	28	2.4	0.2	9.1	4.4	31	169
EP006.00	A	30	28	2.6	0.37	140	7.9	31	169
EP006.90	A	30	28	2.3	0.19	10	4.2	31	169
EP009.00	A	30	28	3.6	0.56	240	19.1	31	169
EP011.00	A	30	28	3.9	0.51	120	17.7	31	169
EP011.70	A	30	27	3.1	0.28	12	7.2	32	173
EP013.00	A	30	27	2.2	0.2	20	4.1	32	173
EP014.10	A	30	27	3.7	0.32	23	9.9	32	173
EP014.60	A	30	27	4.1	0.56	420	21.4	32	173
EP016.00	P	30	28	12.8	0.63	122	83.5	31	169
EP017.00	P	30	28	15.8	0.61	440	96.7	31	169
EP017.50	P	30	28	6.8	0.61	220	41.8	31	169
EP018.00	A	30	27	3.3	0.4	120	11.1	32	173
EP020.00	A	30	27	3.9	0.47	54	15.7	32	173
EP021.00	A	30	26	4.3	0.49	58	18.6	32	176



Station	Class	Count	MFCOUNT	GeoMean	SDV	MAX	P90	Appd_Std	Restr_Std
EP022.00	New	25	25	2.2	0.25	29	4.8	31	163
EP023.00	A	30	29	2.3	0.28	50	5.3	31	166
EP025.00	A	30	28	2.6	0.33	88	7	31	169
EP026.00	A	30	26	2.3	0.25	40	4.8	32	176
EP027.00	A	30	26	2	0.06	2.9	2.4	32	176
EP028.00	A	30	26	2.1	0.15	9	3.4	32	176
EP029.00	A	30	28	3.6	0.46	50	14.1	31	169
EP030.00	A	30	28	2.9	0.4	82	9.7	31	169

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 2). At some stations, additional samples were collected under adverse conditions as part of the flood sampling strategy.

**Table 2. EP Samples Collected in 2010**

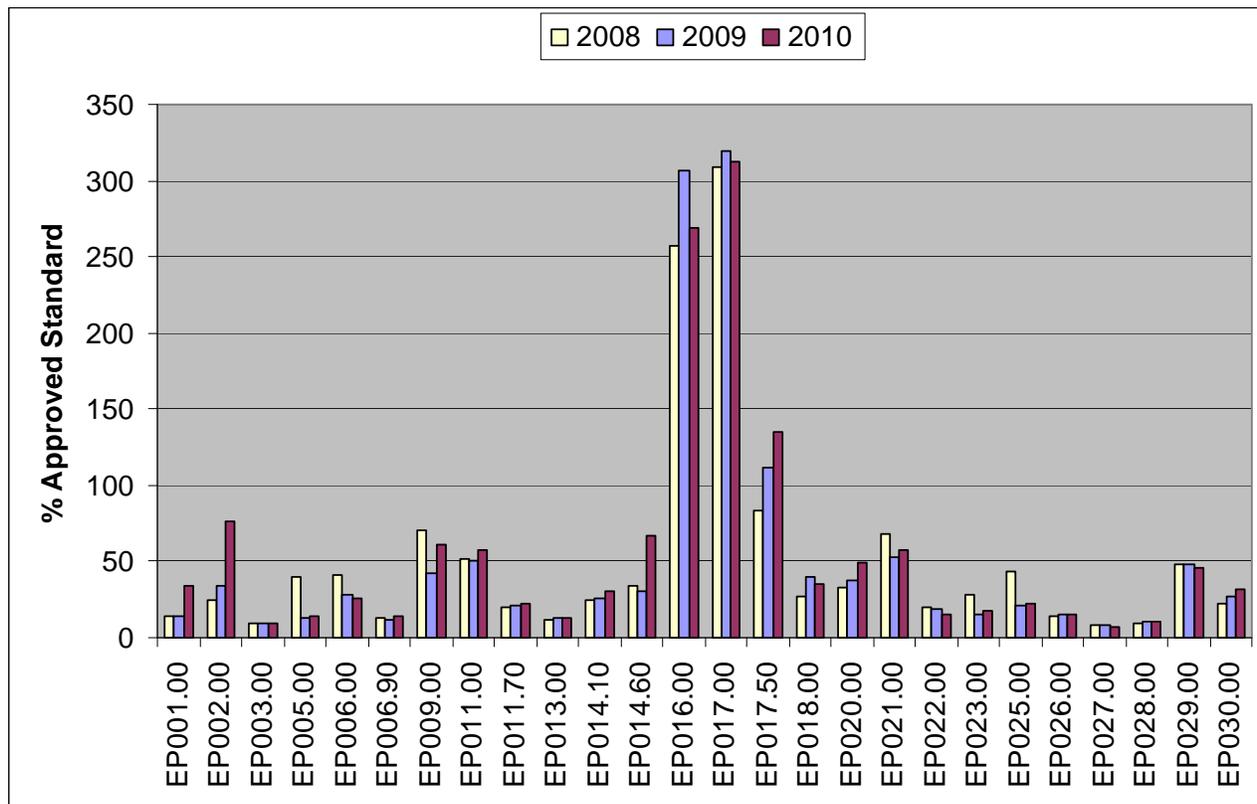
Station	Class	Adverse		Random		Total	Comments
		Closed	Open	Closed	Open		
EP001.00	A				6	6	
EP002.00	A				6	6	
EP003.00	A				6	6	
EP005.00	A				6	6	
EP006.00	A				6	6	
EP006.90	A				6	6	
EP009.00	A				6	6	
EP011.00	A				6	6	
EP011.70	A				6	6	
EP013.00	A				6	6	
EP014.10	A				6	6	
EP014.60	A				6	6	
EP016.00	P			6		6	
EP017.00	P			6		6	
EP017.50	P			6		6	Reclass A to P on 3/8/10
EP018.00	A	15	2		6	23	Flood Station
EP020.00	A				6	6	
EP021.00	A	11			6	17	Flood Station
EP022.00	A	13	2		6	21	Flood Station
EP023.00	A				6	6	
EP025.00	A				6	6	
EP026.00	A				6	6	
EP027.00	A				6	6	
EP028.00	A				6	6	
EP029.00	A				6	6	
EP030.00	A				6	6	



Figure 2 shows the P90 trends over the past three years for all active stations in area EP. During the transition from MPN to MF analysis method, the approved and restricted standards will decrease every year, until all samples have been analyzed by the MF method. In order to show the trend of the P90 value over the years, the calculated P90 scores are expressed as a percentage of the approved standard; any station showing the 2010 column on or above the 100 percent line does not meet the standard for approved classification.

Stations EP 16, 17, and 17.5 are embedded in Area No. 54H, in the upper Chandler River. Stations 16 and 17 fluctuate but remain consistently above the approved classification standard. Station 17.5 is showing a consistent upward trend (decreasing water quality) over the past three years. Reasons for this increase are likely due to the malfunctioning septic systems found in the Jonesboro area but may be impacted by an undiscovered local malfunctioning system. All three stations fall below the upper cutoff for restricted classification but must remain prohibited due to the close proximity of malfunctioning septic systems.

**Figure 2. Area EP P90 Scores Expressed as a Percent of the Approved Standard, 2008-2010**



### Upward Classification Changes

There are no upward reclassifications proposed.



## **Aquaculture/Wet Storage Activity**

There is no aquaculture or wet storage in Growing Area EP.

## **Shoreline Survey Activity**

Drive through surveys of growing area EP were conducted on the same dates as random water sampling runs. In 2010, they were conducted on the following dates: March 22 & 30, April 26, May 12 & 26, June 21 & 23, July 26 & 27, August 23, September 13, 14, & 28, and October 4, 25, 26, & 27. No changes in pollution sources were noted at the time of drive through surveys.

## **Recommendation for Future Work**

A full shoreline survey of the Chandler River in the vicinity of Jonesboro was conducted by the Maine DEP during the 2008 and 2009 seasons. Problems found in that survey remain uncorrected and continue to impact the upper Chandler River. Results of the DEP survey findings can be found in a report located in the EP growing area file. DMR recommends working closely with the local plumbing inspector, DEP, and the division within Maine DHHS that oversees plumbing inspectors in order to track remediation efforts. Increased stream samples in the problem area in 2011 will monitor the abatement process of these malfunctioning systems. Once the known pollution sources have been abated, then area 54-H will be assessed for an upward classification change.



## 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) 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 = 90<sup>th</sup> percentile

APPD\_STD = the 90<sup>th</sup> 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 90<sup>th</sup> percentile, at or below which the station would meet restricted criteria.