



GROWING AREA WP

Boothbay Harbor

Towns of Boothbay Harbor, Southport, East Boothbay

Annual Report for 2006

Final Report: September 12, 2007

**Written By
Fran Pierce**

APPROVAL

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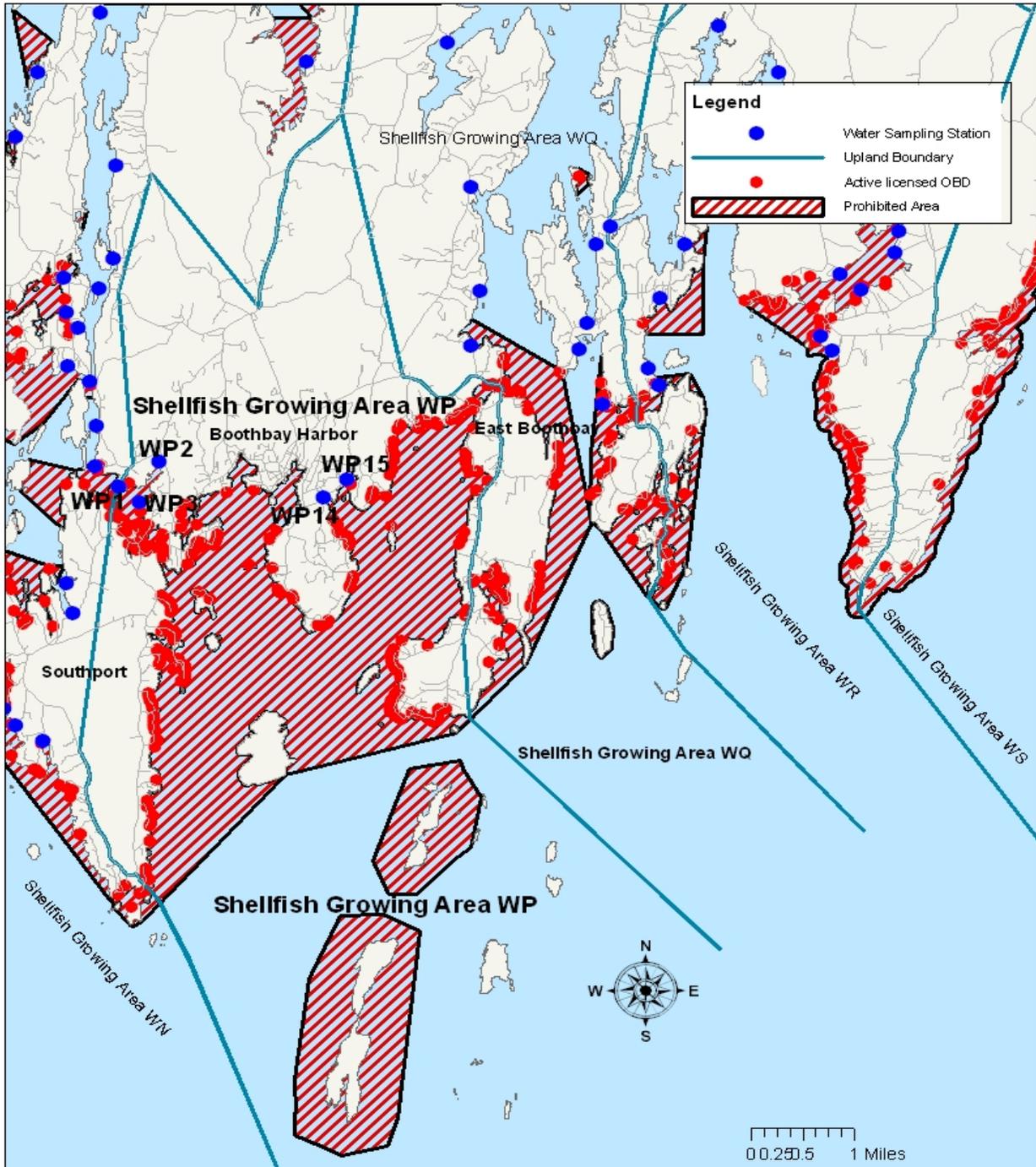


Maine Department of Marine Resources Shellfish Growing Area WP

Towns of Boothbay Harbor, East Boothbay and Southport



2/12/07





Executive Summary

Shellfish Growing Area WP includes portions of the towns of Southport, Boothbay Harbor and Boothbay. All of the towns in this area are very rural with large summer populations. This entire growing area is classified as closed prohibited due to the many licensed overboard discharge systems. Hodgdon Cove was classified as approved for shellfish harvest until 2005 when it was reclassified to closed prohibited due to poor water quality scores. Hodgdon Cove is also the only section of shore in this growing area that has been surveyed. There are currently only five active sampling stations in the entire growing area because so much of the area contains licensed overboard discharges,.

There is one municipal treatment facility that serves the immediate town area of Boothbay Harbor. Boothbay Harbor is the largest of the three towns in this growing area. All of the remaining residents utilize either private in - ground septic systems or licensed overboard discharge systems. Boothbay Harbor contains a variety of pollution sources including three marinas, a large mooring area, several small businesses, and a boatyard. All of these operations are located more than 3 miles away from Hodgdon Cove which is located in Townsend Gut. Townsend Gut is a marine passageway that connects Boothbay Harbor to the Sheepscot River. The majority of the shore in Townsend Gut contains private dwellings.

The upland boundary of this growing area is described as:

Area P Boundary Description

Area P lies inside a line from the southeast shore of Cape Newagen, Southport, extending south and offshore along the shellfish management zone line and extending north along Town Landing Rd to Hendricks Hills Rd, then northwest along Hendricks Hills Rd to the intersection of Youngs Rd, then northeast to the intersection of Landing Rd and Hendricks Hills Rd, then north along Landing Rd and across the channel, then north along Oak Point Rd to Samoset Rd, the north to the intersection of Knickerbocker Rd and Barter's Island Rd, then north to the intersection of Knickerbocker Rd and Back River Rd, then southeast to the intersection of Wiscasset Rd and Country Club Rd, then north along the Wiscasset Rd, Rt. 27, to the Hardwick Rd, then southeast to the intersection of Ocean Point Rd and Bradley Rd, then south along Ocean Point Rd to Van Horn Rd, then south to the southeast point of Ocean Point, then south and offshore following the shellfish management zone line.

Current Classification

There are currently five active sampling stations in this growing area. All of these stations are classified as prohibited.

Current Management Plan

There is no management plan in WP.



Review of Water Quality

Please refer to the attached map to view the five active sampling stations.

Transitioning to Membrane Filtration for Seawater and Pollution Source Samples

The Maine Department of Marine Resources has chosen to switch to a fecal coliform method that was approved for use in the National Shellfish Sanitation Program (NSSP) at the Interstate Shellfish Sanitation Conference in 2003. This method is the Membrane Filtration (MF) for Fecal Coliforms using mTEC agar with a two hour resuscitation step. The geometric mean and the 90th percentile are calculated on 30 data points extending over a five year period. During the transition from MPN to MF, we will be accumulating MF data points. The statistical calculations will be a combination of MPN and MF data points. The FDA has determined that the best way to handle the data is to perform the calculations as always for the data set, but to compare the data set to a hybrid weighted 90th percentile. This hybrid standard is calculated by weighting the relative contributions of each method to the database. This will mean that as the number of MPN data points reduce and the number of MF data points increase the 90th percentile standard that the sample site is compared to will change over time. Once all 30 data points are analyzed using MF, the 90th percentile for approved classification will be 31 and for restricted (for depuration) will be 163. The geomean approved standard of 14 fecal coliforms per 100 ml and geomean restricted standard of 88 fecal coliforms per 100 ml will remain the same for both methods.

Reports that display 90th percentiles will show the number of data points derived from MF analysis and will show the appropriate 90th percentile standard for that MPN/MF combination for approved and restricted classifications. It must be remembered that this weighted standard is only used for data sets encompassing data from the two different test methods, MF and MPN (3 tube/3 dilution). If decisions are to be made on a single test result analyzed by the MF method or a multiple number of test results all exclusively analyzed by the MF method, the 90th percentile standard is 31 fecal coliforms per 100 ml.

Sampling station WP2 is the station that is sampled in what was the open area in Hodgdon Cove. In 2006 this area failed to meet approved standards and was reclassified to prohibited.

During the routine random sampling run in 2005, human waste and toilet paper was observed on the shore at sampling station WP2. The dwelling at this site was involved in a major reconstruction. The contractors doing the work had a porta-potty system on site for the workers to use. However it appeared that some of the workers were going on the shore. The manager of the operation was contacted and made aware of the situation and the impact it could have on the nearby resource. He agreed to discuss it with his workers. Waste was not observed again during subsequent visits. The construction project has since been completed.

During the 2006 sampling season, the water quality showed improvement. The area was sampled the required six times during the sampling season however the samples collected on May 4, 2006 were not originally scheduled as part of the random sampling schedule. A description of the headers for the data tables can be found on page 9 of this document.



MAINE DEPARTMENT OF MARINE RESOURCES

As of: February 12, 2007

Fecal Coliform Geometric Mean and Percent Variability
For the Years 2002 Through 2006 - (01/01 - 12/31) (-)
Excludes Dates: no dates were excluded
Status = Open and Closed Stations
Strategy = Random Only
Excludes Flood Data
Excludes Inactive Stations
Samples Limited to Latest 30
Salinity >= 0 ‰

STATION	CLASS	CNT	MFCNT	GM	SDV	MAX	P90	APPD_STD	RESTR_STD
WP001.00	P	28	3	7.4	0.62	460	46.2	47	281
WP002.00	P	28	3	6.6	0.65	1100	44.4	47	281
WP003.00	P	28	3	4.3	0.40	150	13.8	47	281
WP014.00	P	19	3	8.4	0.55	93	43.1	46	272
WP015.00	P	19	3	5.3	0.53	240	25.4	46	272

Shoreline Survey Activity

No shoreline survey inspections took place during the 2006 sampling season. Properties were revisited during the triennial review of the area in 2005.

Shellfish aquaculture an/or Wet Storage Activities

There are no aquaculture lease sites in this growing area.

Current Map and Legal Notice

Current map is on page 3 of this document and the legal notices can be viewed on line at:
http://www.maine.gov/dmr/rm/public_health/closures/closedarea.htm#P

Conclusion

Shellfish growing area WP will continue to be sampled to determine if the water quality in Hodgdon Cove will remain stable. The area will be sampled at least six times during the 2007 sampling season. If the water quality continues to be good, the area will be surveyed to see if it can be reopened for shellfish harvest. Additional sampling stations will be reactivated when licensed overboard discharges are removed.



Tabulated Station Data

MAINE DEPARTMENT OF MARINE RESOURCES

As of: February 12, 2007

Tabulated Station Data for Area(s): WP - WP
 For the Years 2006 Through 2006 - (01/01 - 12/31) (-)
 Exclude Dates: no dates were excluded
 Status = Open and Closed Stations
 Strategy = Random & Adverse
 Excludes Flood Data = Y
 Excludes Inactive Stations

Station	Date	Collector	Tide	Temp	Weather	Sal	Strat	ADV	Stat	CL	FECOL	A1COL	MFCOL	WIND
WP001.00	03/29/06	FP	F	9	C	30	R	-	C	P		<3.0	-	CL
WP001.00	05/04/06	MC	L	9	-	29	E	P	C	P		<3.0	-	CL
WP001.00	07/10/06	EXT	F	16	-	29	R	-	C	P		9.1	-	SW
WP001.00	08/21/06	EXT	F	14	O	29	R	-	C	P		-	6	CL
WP001.00	10/02/06	FP	E	12	O	31	R	P	C	P		-	6	SW
WP001.00	11/13/06	LLB	E	8	R	30	R	P	C	P		-	<2.0	SE
WP002.00	03/29/06	FP	F	9	C	31	R	-	O	A		<3.0	-	CL
WP002.00	05/04/06	MC	L	15	-	24	E	P	C	A		<3.0	-	CL
WP002.00	07/10/06	EXT	F	16	-	30	R	-	C	P		11	-	SW
WP002.00	08/21/06	EXT	F	14	O	30	R	-	C	P		-	4	CL
WP002.00	10/02/06	FP	E	10	O	30	R	P	C	P		-	24	CL
WP002.00	11/13/06	LLB	E	9	R	30	R	P	C	P		-	<2.0	NE
WP003.00	03/29/06	FP	F	8	C	31	R	-	C	P		<3.0	-	CL
WP003.00	05/04/06	MC	L	10	-	30	E	P	C	P		<3.0	-	CL
WP003.00	07/10/06	EXT	F	17	-	30	R	-	C	P		9.1	-	SW
WP003.00	08/21/06	EXT	HF	14	O	30	R	-	C	P		-	<2.0	CL
WP003.00	10/02/06	FP	HE	11	O	31	R	P	C	P		-	2	SW
WP003.00	11/13/06	LLB	E	9	R	28	R	P	C	P		-	2	NE
WP014.00	03/29/06	FP	F	9	C	32	R	-	C	P		<3.0	-	CL
WP014.00	05/04/06	MC	LF	10	-	30	E	P	C	P		<3.0	-	CL
WP014.00	07/10/06	EXT	F	19	-	30	R	-	C	P		23	-	SW
WP014.00	08/21/06	EXT	HF	18	O	31	R	-	C	P		-	12	CL
WP014.00	10/02/06	FP	E	12	O	32	R	P	C	P		-	2	CL
WP014.00	11/13/06	LLB	E	9	R	30	R	P	C	P		-	8	E
WP015.00	03/29/06	FP	F	9	C	32	R	-	C	P		<3.0	-	CL
WP015.00	05/04/06	MC	LF	9	-	31	E	P	C	P		<3.0	-	CL
WP015.00	07/10/06	EXT	F	18	-	30	R	-	C	P		9.1	-	SW
WP015.00	08/21/06	EXT	HF	17	O	31	R	-	C	P		-	20	CL
WP015.00	10/02/06	FP	E	11	O	31	R	PN	C	P		-	2	W
WP015.00	11/13/06	LLB	E	8	R	28	R	P	C	P		-	<2.0	E

30 Total Records Retrieved



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.