



Growing Area ED – Isle au Haut Island, Knox County

Annual Report for 2007

Final Report Date: January 12, 2009

**ORIGINATOR NAME
Erick Schaefer**

APPROVAL

Division Director:

_____ Date: _____
Print name signature

DISTRIBUTION:

- () Commercial Monitoring and Assessment Division.....By:_____ Date:_____
- () Habitat/Aquaculture Division..... By:_____ Date:_____
- () Education Division.....By:_____ Date:_____
- () Stock Enhancement Divison.....By:_____ Date:_____
- () Bureau of Resource Management Director.....By:_____ Date:_____
- () Office of the Commissioner.....By:_____ Date:_____



DRAFT REVIEW ROUTING FORM

Date in Process:

Operation Title:

Revision No.:

Originator's Name: _____

Print name

Signature

The attached draft is for your evaluation and comment. Suggested changes should be concise and reasons specific. Return to sender.

PEER reviewer:

Mercuria Cumbo _____ Date: _____
print name signature

Supervisor:

Robert Goodwin _____ Date: _____
print name signature

Division Director:

Amy Fitzpatrick _____ Date: _____
print name signature



Table of Contents

Executive Summary	5
Current Classification(s).....	5
Current Management plan (s)	5
Review of Water Quality	5
Shoreline Survey Activity	7
Shellfish aquaculture and/or wet storage activities	7
Proposed Classification Changes	7
Discussion and Summary	7
Appendix A. Key to water quality table headers.	8

Table of Tables

Table 1 Growing Area Sample Count 2007	6
Table 2 2007 Area ED P90 12/31/07	6
Table 3 Area ED P90 Trend % Standard	7

Table of Figures

Figure 1 Growing Area ED 2007 Map.....	4
--	---



Figure 1 Growing Area ED 2007 Map



Executive Summary

Isle au Haut is a large (6 miles x 3 miles; 5500 acres) offshore island south of the Hancock County fishing village of Stonington, Maine. Winter population is <80 people, while summer resident numbers average +\-300 individuals. Land use is limited to small farms, seasonal structures and near-shore fishing. Isle au Haut is reached by private ferry/barge service and most of the roads are town owned. Acadia National Park occupies the southern 1/2 of the island (2860 acres) and the use is limited to a small number of visitors per day with the largest use in the summer months. There were no new pollution sources found, no new stations were added or deactivated and water quality has remained consistent.

Current Classification(s)

Approved- All shores and waters of the growing area are approved

Current Management plan (s)

There are no conditional areas in growing area ED.

Review of Water Quality

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 2005. 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.



Six random samples were collected for growing area ED during the 2007 sampling season (Table 1). The current P90 is shown in Table 2; please refer to Appendix A for a key to interpreting the headers on the columns of Table 1. All stations met the standards for their current classification.

Table 1 Growing Area Sample Count 2007

Station	Class	Status	Sample Count	Sample Run
ED001.50	A	O	6	02B
ED002.00	A	O	6	02B
ED002.50	A	O	6	02B
ED003.00	A	O	6	02B
ED003.70	A	O	6	02B
ED003.80	A	O	6	02B
ED004.00	A	O	6	02B
ED004.40	A	O	6	02B
ED004.60	A	O	6	02B
ED005.10	A	O	6	02B
ED005.50	A	O	6	02B
ED007.00	A	O	6	02B

Table 2 2007 Area ED P90 12/31/07

Station	Class	Count	MFcount	Geo Mean	Sdv	P90	Appr. Std
ED001.50	A	30	8	2.6	0.09	3.4	43
ED002.00	A	30	8	3.2	0.31	7.8	43
ED002.50	A	30	8	2.6	0.09	3.4	43
ED003.00	A	30	8	2.6	0.08	3.3	43
ED003.50	New	15	0	3.0	0.03		
ED003.70	A	30	8	2.6	0.09	3.4	43
ED003.80	A	30	8	2.7	0.09	3.5	43
ED004.00	A	30	8	2.6	0.09	3.4	43
ED004.40	A	30	8	2.7	0.13	4.0	43
ED004.60	A	30	8	2.7	0.12	3.8	43
ED005.00	New	16	0	2.9	0.02		
ED005.10	A	30	8	2.8	0.19	4.9	43
ED005.50	A	30	8	2.6	0.09	3.4	43
ED007.00	A	30	8	3.1	0.28	7.2	43



Table 3 shows the P90 trend for this growing area for the years 2006 and 2007. Water quality for this growing area has remained clean with all stations having a P90 of less than 10.

Table 3 Area ED P90 Trend % Standard

Station	2006 P90	Appr. Std	%standard 2006	2007 P90	Appr. Std	%standard 2007
ED001.50	3.3	48	6.9	3.4	43	7.9
ED002.00	8.1	48	16.9	7.8	43	18.1
ED002.50	3.4	48	7.1	3.4	43	7.9
ED003.00	3.2	48	6.7	3.3	43	7.7
ED003.50	3.2	49	6.5	3.3	49	6.7
ED003.70	3.3	48	6.9	3.4	43	7.9
ED003.80	3.3	48	6.9	3.5	43	8.1
ED004.00	3.3	48	6.9	3.4	43	7.9
ED004.40	4.1	48	8.5	4	43	9.3
ED004.60	3.8	48	7.9	3.8	43	8.8
ED005.00	3.1	49	6.3	3.2	49	6.5
ED005.10	5	48	10.4	4.9	43	11.4
ED005.50	3.4	48	7.1	3.4	43	7.9
ED007.00	7.4	48	15.4	7.2	43	16.7

Shoreline Survey Activity

There were no extra samples or stream samples taken during this review period. All the perennial streams in this growing area all have water quality stations located near their mouths. Random sampling of these stations has never indicated any problems. The area is due for a complete sanitary survey in 2012.

Shellfish aquaculture and/or wet storage activities

There are no aquaculture sites or wet storage activities in growing area ED.

Proposed Classification Changes

Year end data analysis does not indicate the need for any changes in classification.

Discussion and Summary

There were no new pollution sources found in this growing area during the 2007 sampling season. A review of the current data and shoreline survey information collected during routine random sampling during this review period has concluded that this growing area meets the standard for the Approved classification. No changes are needed at this time. Water quality in this growing area is historically clean and remains so for this review period.



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 = 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.