



**GROWING AREA WF – Fortunes Rocks**

**Town of Biddeford**

**ANNUAL REVIEW for 2006**

**Final Report Date: June 29, 2007**

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**APPROVAL**

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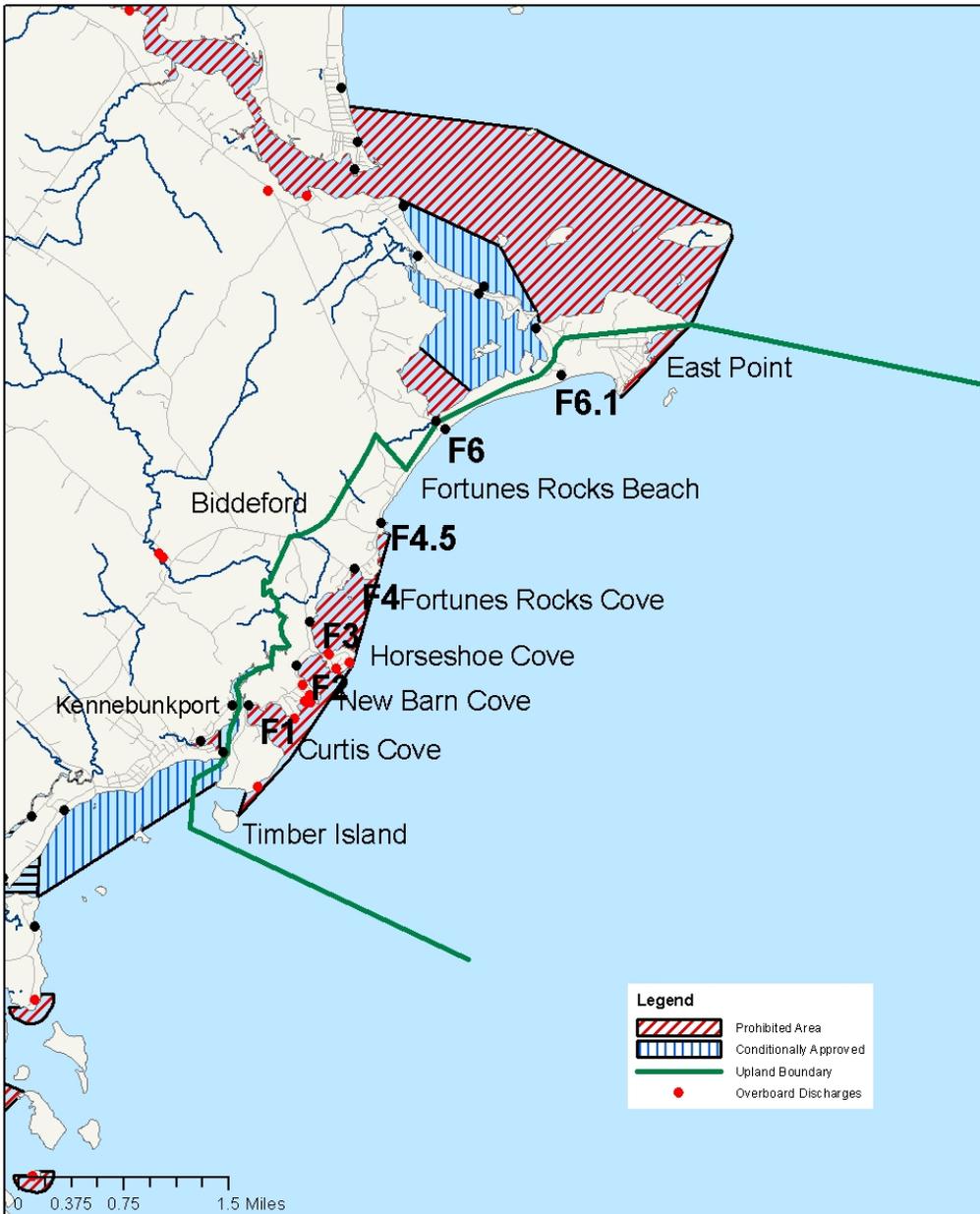


# Maine Department of Marine Resources

Growing Area WF



3/1/07





## Executive Summary

Growing area WF is from Timber Island, Biddeford to East Point, Biddeford. There are no new actual or potential pollutions sources in this growing area and no stations have been created or deactivated in the past year. No overboard discharges have been removed that can result in opening any shellfish areas and no classification changes are required at this time.

## Boundary Description

Growing area WF lies inside a line from the east tip of Timber Island, Biddeford, extending due south offshore following the shellfish management zone line, and also, extending north to the southeast tip of Timber Point, then north up the middle of the Little River to the head of the river, then north to the intersection of Pool Street and Granite Point Road, then north on Pool Street to the intersection of Maddox Pond Road, then east to the intersection of Fortunes Rocks Road and Thorndike Avenue, then north on Fortunes Rocks Road, which becomes Mile Stretch Road, to the intersection of Lester B. Orcutt Boulevard, then east to East Point, Biddeford, then due east offshore following the shellfish management zone line.

## Current Classification(s)

Shellfish growing area WF currently has areas classified as:

### Approved

Fortunes Rocks Beach (3 Stations)

### Prohibited

New Barn Cove (1 Station)

Horseshoe Cove (1 Station)

Curtis Cove (1 Station)

Fortunes Rocks Cove (1 Station)

East Point

## Legal Notices

Visit the DMR website to view Legal Notices:

MDMR Regulation 95.10 Z, Closed Area No. 9, Batson River to Fortunes Rocks (Kennebunkport and Biddeford)

DMR Regulation 95.10 S, Closed Area No. 10, Saco River and Saco Bay (Biddeford, Saco and Old Orchard Beach).

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



## Current Management Plan(s)

There are no conditional areas in growing area WF.

## Review of Water Quality

### 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 90<sup>th</sup> 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 90<sup>th</sup> 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 90<sup>th</sup> percentile standard that the sample site is compared to will change over time.

Once all 30 data points are analyzed using MF, the 90<sup>th</sup> 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 90<sup>th</sup> percentiles will show the number of data points derived from MF analysis and will show the appropriate 90<sup>th</sup> 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 90<sup>th</sup> percentile standard is 31 fecal coliforms per 100 ml.

This was the first year the water quality program documented in the database the inability to collect a sample based on the following parameters: if the tide stage was too low to collect the sample, there was a safety issue with collecting the sample, the location was inaccessible and "other" which usually was accompanied by a comment on the data sheet. Stations that were unable to be sampled due to any of these parameters show 999 in the salinity column and have no data recorded in any of the columns but the time is recorded so the actual tide stage can be computed. Stations that were missed due to the above parameters were required to be made up to assure that each station would receive the required six samples during the sampling season.



Table 1 displays the geomeans and P90s for all the active stations in growing area WF. The data represents the evaluation of the 30 most recent data points collected between 2001 and 2006 throughout the year. A key to the water quality table headers can be found in Attachment A at the end of this document. Water quality meets approved standards at all stations in growing area WF. Prohibited stations are classified prohibited due to overboard discharges.

**Table 1 Geomean and P90-Year Round**

MAINE DEPARTMENT OF MARINE RESOURCES							As of: December 26, 2006		
Fecal Coliform Geometric Mean and Percent Variability For the Years 2001 Through 2006 - (01/01 - 12/31) Strategy = Random Only Excludes Flood Data Samples Limited to Latest 30 Salinity >= 0 ‰									
STATION	CLASS	CNT	MFCNT	GM	SDV	MAX	P90	APPD_STD	RESTR_STD
WF001.00	P	30	2	5.4	0.57	460	28.9	48	288
WF002.00	P	30	2	3.5	0.27	43	7.6	48	288
WF003.00	P	30	2	3.7	0.32	43	9.6	48	288
WF004.00	P	30	2	3.7	0.41	240	12.4	48	288
WF004.50	A	30	2	3.8	0.35	93	10.7	48	288
WF006.00	A	30	2	3.9	0.40	93	12.8	48	288
WF006.10	A	30	2	3.5	0.36	240	10.2	48	288

Stations that were active at the beginning of the year were sampled six times in 2006, as documented below:

**Table 2 Sample Collection Results for 2006**

MAINE DEPARTMENT OF MARINE RESOURCES													As of: December 26, 2006		
Tabulated Station Data for Area(s): WF - WF For the Years 2006 Through 2006 - (01/01 - 12/31) Strategy = Random Only Excludes Flood Data = Y															
Station	Date	Collector	Tide	Temp	Weather	Sal	Strat	ADV	Stat	CL	FECOL	AlCOL	MFCOL	WIND	
WF001.00	01/04/06	FP	HF	5	-	30	R	W	C	P		93	-	NW	
	02/14/06	FP	F	5	P	30	R	-	C	P		<3.0	-	W	
	04/18/06	RS	LF	7	-	32	R	N	C	P		<3.0	-	NW	
	08/01/06	HBG	E	14	C	30	R	-	C	P		23	-	N	
	09/26/06	HBG	L	9	C	30	R	-	C	P		-	<2.0	E	
	12/04/06	FP	E	4	-	32	R	-	C	P		-	<2.0	N	
WF002.00	01/04/06	FP	HF	5	-	30	R	-	C	P		9.1	-	NW	
	02/14/06	FP	F	5	P	30	R	-	C	P		<3.0	-	CL	
	04/18/06	RS	LF	6	-	32	R	N	C	P		<3.0	-	W	
	08/01/06	HBG	E	13	C	30	R	-	C	P		<3.0	-	W	
	09/26/06	HBG	L	9	C	30	R	-	C	P		-	<2.0	NE	
	12/04/06	FP	E	4	-	32	R	-	C	P		-	<2.0	N	
WF003.00	01/04/06	FP	HF	5	-	30	R	-	C	P		43	-	NW	
	02/14/06	FP	F	5	P	31	R	-	C	P		15	-	CL	
	04/18/06	RS	L	6	-	32	R	H	C	P		<3.0	-	N	
	08/01/06	HBG	E	12	C	30	R	H	C	P		<3.0	-	W	
	09/26/06	HBG	L	8	C	32	R	H	C	P		-	<2.0	NE	
	12/04/06	FP	E	3	-	31	R	-	C	P		-	<2.0	N	
WF004.00	01/04/06	FP	HF	5	-	30	R	-	C	P		3.6	-	NW	
	02/14/06	FP	F	5	P	30	R	-	C	P		<3.0	-	CL	
	04/18/06	RS	L	6	-	32	R	H	C	P		<3.0	-	W	
	08/01/06	HBG	E	13	C	30	R	H	C	P		3.6	-	W	
	09/26/06	HBG	LE	8	C	30	R	-	C	P		-	<2.0	E	
	12/04/06	FP	E	4	-	32	R	-	C	P		-	<2.0	NE	



WF004.50	01/04/06	FP	F	5	-	30	R	-	O	A		3.6	-	NW
	02/14/06	FP	F	5	P	30	R	-	O	A		<3.0	-	W
	04/18/06	RS	L	5	-	31	R	N	O	A		<3.0	-	NW
	08/01/06	HBG	E	13	C	30	R	-	O	A		<3.0	-	NW
	09/26/06	HBG	LE	8	C	32	R	-	O	A		-	<2.0	E
	12/04/06	FP	E	4	-	31	R	-	O	A		-	<2.0	NE
WF006.00	01/04/06	FP	F	5	-	30	R	-	O	A		<3.0	-	NW
	02/14/06	FP	F	5	P	30	R	-	O	A		3.6	-	W
	04/18/06	RS	L	5	-	32	R	H	O	A		<3.0	-	NE
	08/01/06	HBG	E	13	C	30	R	H	O	A		<3.0	-	W
	09/26/06	HBG	LE	9	C	30	R	H	O	A		-	<2.0	E
	12/04/06	FP	E	4	-	32	R	-	O	A		-	50	NE
WF006.10	01/04/06	FP	F	5	-	30	R	-	O	A		3.6	-	NW
	02/14/06	FP	F	5	P	30	R	-	O	A		<3.0	-	W
	04/18/06	RS	LE	5	-	32	R	N	O	A		<3.0	-	NW
	08/01/06	HBG	E	14	C	30	R	-	O	A		<3.0	-	W
	09/26/06	HBG	LE	9	C	32	R	-	O	A		-	<2.0	NE
	12/04/06	FP	E	4	-	32	R	-	O	A		-	<2.0	NE

### Shoreline Survey Activity

The Fortunes Rocks Beach shoreline, in growing area WF, was surveyed in 2003. Drive through surveys were done, in growing area WF, during random sampling runs. No septic changes in the shoreline were observed, no new housing developments, businesses or drainage alterations.

### Aquaculture/Wet Storage Activity

There currently are no active aquaculture lease sites in shellfish growing area WF.

### Classification Changes Required

No classification changes are required at this time.

### Discussion & Summary

Growing Area WF has had no changes in pollution sources during the review period and no changes in classifications are required at this time.



## Attachment 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.