



**GROWING AREA WD
Towns of Ogunquit, Wells and Kennebunk**

ANNUAL REVIEW for 2009

Report Date: January 21, 2010

Lorraine Morris

APPROVAL

Division Director:

_____ Date: _____
Print name signature



TABLE OF CONTENTS

Executive Summary 6

Growing Area Description 6

Current Classification(s)..... 6

Activity during Review Period 7

Current Management Plan(s) for Conditional Area(s)..... 8

There are currently no conditional areas in area WD, due to all stations being reclassified to prohibited. 8

Water Quality Review and Discussion 8

Recommendations for Upward Classification 13

Shoreline Survey Activity 13

Aquaculture/Wet Storage Activity 13

Summary..... 13

Appendix A. Key to Water Quality Table Headers 14

Appendix B. Transitioning to Membrane Filtration for Seawater and Pollution Source Samples 15

Appendix C. Growing Area WD 2009 SRS Data 16

LIST OF TABLES

Table 1. Classification Changes for Area WB in 2009 7

Table 2. Geomean and P90 Scores, Growing Area WD, 2004-2009 8

Table 3. WD Samples Collected in 2009 9

LIST OF FIGURES

Figure 1. Growing Area WD, with Active Water Stations 3

Figure 2. Upper Portion of Growing Area WD, with Active Water Stations 4

Figure 3. Lower Portion of Growing Area WD, with Active Water Stations 5

Figure 4. Area WD P90 Scores for the Conditional Area in the Ogunquit River during the previous open status of November 1 – May 31 (expressed as the percent of the approved standard), 2005-2009..... 12

Figure 5. Area WD P90 Scores for the Conditional Area in the Webhannet River during the previous open status of January 1 – April 30 (expressed as the percent of the approved standard), 2005-2009..... 13



Figure 1. Growing Area WD, with Active Water Stations

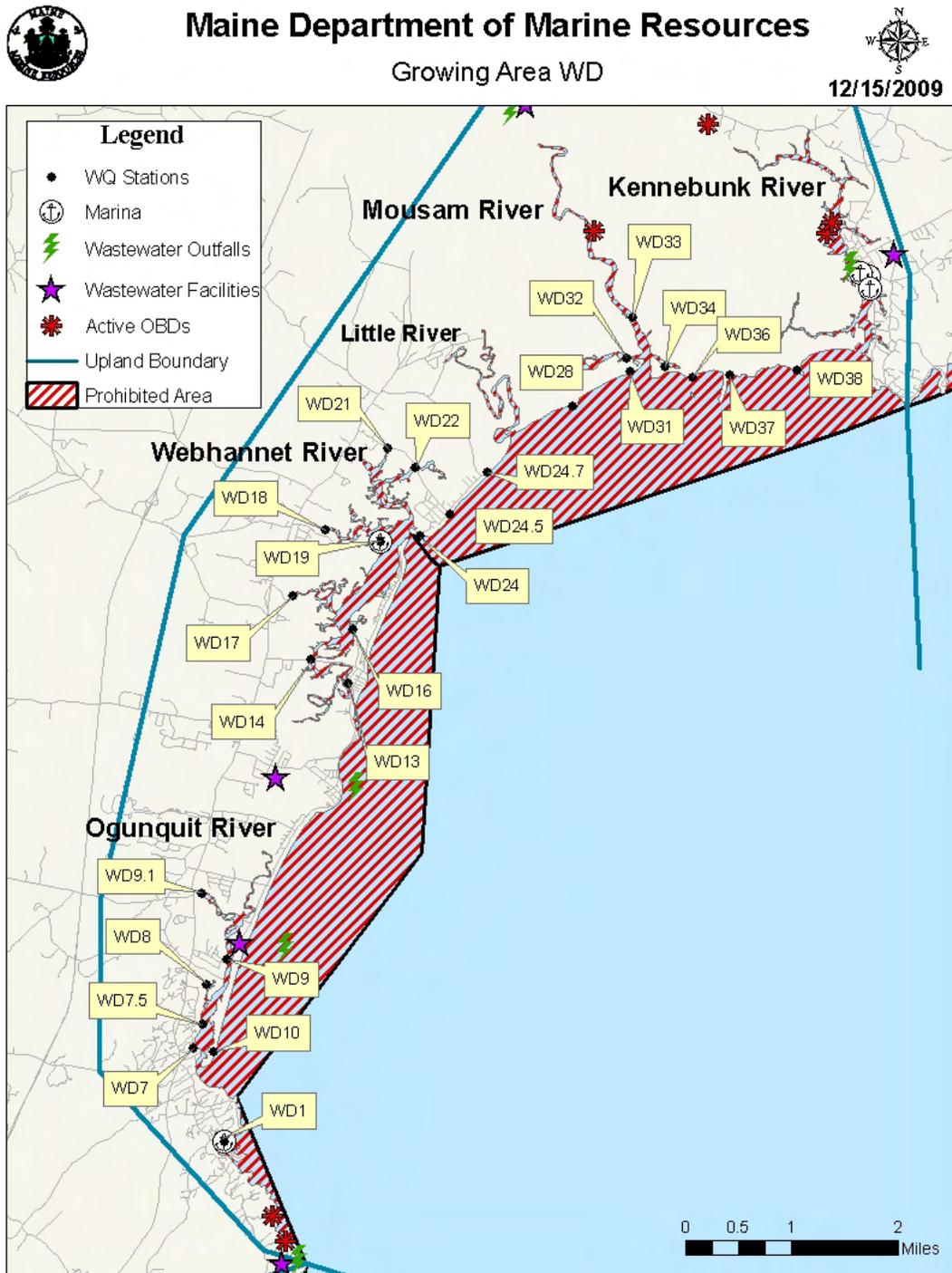




Figure 2. Upper Portion of Growing Area WD, with Active Water Stations

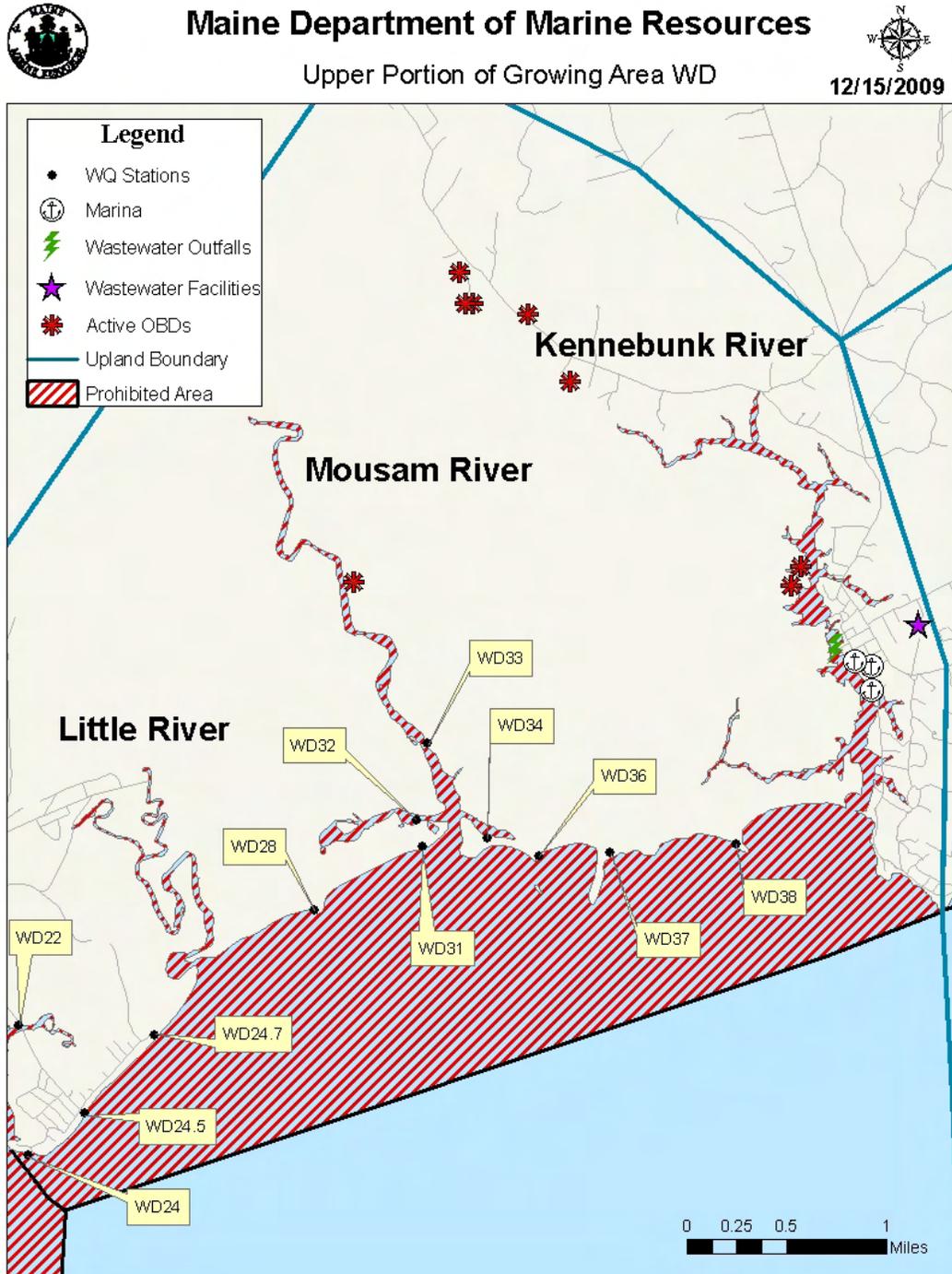
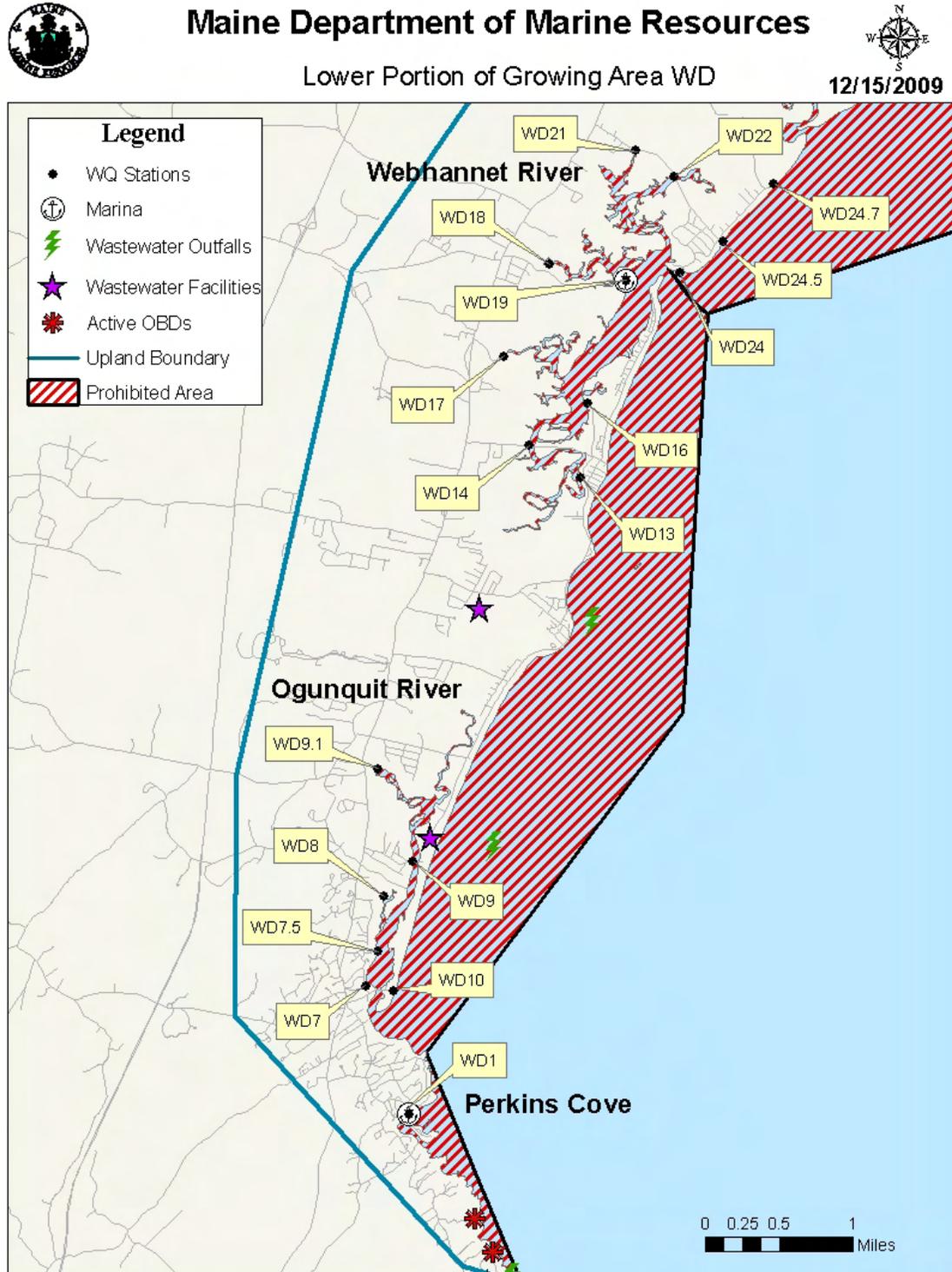




Figure 3. Lower Portion of Growing Area WD, with Active Water Stations





Executive Summary

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

Growing Area WD includes the Ogunquit, Webhannet, Little, Mousam and the Kennebunk Rivers. Existing pollution sources in this growing area include four municipal waste water treatment plants (WWTP), five marinas, and several active over board discharges (OBD's). There were no additional pollution sources identified during the 2009 review year.

There were no stations added or removed from the growing area in 2009. On February 13, 2009 all stations within area WD were reclassified to prohibited due to an expired shoreline survey. All stations in area WD will remain classified as prohibited until future shoreline survey work and water quality assessment can be completed.

The next triennial report is due in 2013; the next sanitary survey report is due in 2010.

Growing Area Description

Growing Area WD is located between Bald Head, Ogunquit and Cape Arundel, Kennebunkport and includes the Webhannet, Little, Mousam and Kennebunk Rivers. It also includes large stretches of public beach in the towns of Ogunquit, Wells and Kennebunk. A complete boundary description for this growing area can be found in DMR central files.

The major sources of pollution in growing area WD include four WWTP located in Ogunquit, Wells, Kennebunk, and Kennebunkport. There are also marinas and town mornings located in the Webhannet and Kennebunk Rivers.

Current Classification(s)

At the end of 2009, shellfish growing area WD was classified as:

Prohibited (due to expired shoreline survey and proximity to WWTP outfalls)

- Oarweed Cove (1 Station)
- Ogunquit River (4 Stations)
- Webhannet River (8 Stations)
- Perkins Cove
- Ogunquit River (2 stations)
- Ogunquit and Wells Beaches (4 stations) (Ogunquit and Wells WWTP outfalls)
- Kennebunk Beaches (4 Stations)(Kennebunk WWTP outfall)
- Mousam River (3 stations) (Kennebunk WWTP outfall)
- Kennebunk River (Kennebunkport WWTP outfall; marina)



Please visit the DMR website to view legal notices:

http://www.maine.gov/dmr/rm/public_health/closures/closedarea.htm#T

Activity during Review Period

Ogunquit Sewer District Superintendent Phil Pickering called on January 21, 2009 at 3pm to report an overboard discharge at pump station #1 of treated effluent for 4 hours overnight (5-9pm). At 5am the pump was running again. Worst case scenario includes a spill of 48,000 gallons. Pump station #1 is located in a prohibited area and did not require a closure around the spill.

On February 13, 2009, all non prohibited stations in area WD were reclassified to prohibited, due to an expired shoreline survey. Table 1 lists the classification changes in area WD with previous and current classifications.

Table 1. Classification Changes for Area WB in 2009

Station	Previous Class	Current Class
WD001.00	A	P
WD007.00	CA	P
WD007.50	CA	P
WD008.00	CA	P
WD009.00	R	P
WD013.00	R	P
WD014.00	R	P
WD016.00	CA	P
WD017.00	R	P
WD018.00	R	P
WD019.00	CA	P
WD021.00	CA	P
WD022.00	CA	P

Current Management Plan(s) for Conditional Area(s)

There are currently no conditional areas in area WD, due to all stations being reclassified to prohibited.



Water Quality Review and Discussion

Table 1 lists all active prohibited stations in Growing Area WD, with their respective Geomean and P90 calculations for 2009. Please refer to Appendix C 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 versus 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.

Based on the current review of water quality data some prohibited stations are meeting the approved NSSP standard, but will remain prohibited until a complete shoreline survey and water quality assessment can be completed.

Table 2. Geomean and P90 Scores, Growing Area WD, 2004-2009

Station	Class	Count	MFCOUNT	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD001.00	P	30	20	2.9	0.26	30	6.4	36	199
WD007.00	P	30	30	10	0.71	1100	83.6	31	163
WD007.50	P	30	18	8.1	0.68	1060	61.5	37	208
WD008.00	P	30	29	9.9	0.66	480	71	31	166
WD009.00	P	30	30	8.9	0.77	1140	88.7	31	163
WD009.10	P	30	15	61.3	0.58	1260	341.9	38	221
WD010.00	P	30	20	3.2	0.43	280	11.7	36	199
WD013.00	P	30	20	15.1	0.55	180	78.2	36	199
WD014.00	P	30	28	7.2	0.56	340	38.8	31	169
WD016.00	P	30	27	8	0.57	116	43.2	32	173
WD017.00	P	30	22	24	0.61	520	149.4	35	191
WD018.00	P	30	22	22.4	0.53	220	110.1	35	191
WD019.00	P	30	28	4.1	0.48	93	17.4	31	169
WD021.00	P	30	27	8	0.67	380	57.7	32	173
WD022.00	P	30	27	7.7	0.59	400	45	32	173
WD024.00	P	30	28	3.2	0.43	60	11.8	31	169
WD024.50	P	30	20	3.7	0.53	460	17.9	36	199
WD024.70	P	24	20	3.2	0.39	70	10.5	33	180
WD028.00	P	30	21	2.6	0.23	15	5.4	35	195
WD031.00	P	30	21	4	0.43	88	14.6	35	195
WD032.00	P	30	21	5.4	0.47	122	21.9	35	195



Station	Class	Count	MFCCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD033.00	P	30	21	6.2	0.47	120	25.7	35	195
WD034.00	P	30	21	3.9	0.31	20	10.1	35	195
WD036.00	P	30	20	3.8	0.39	80	12.3	36	199
WD037.00	P	30	21	5.6	0.61	180	34.8	35	195
WD038.00	P	30	21	3	0.3	38	7.3	35	195

All stations except WD 36 that were active at the beginning of the year were sampled at least 6 times in 2009, following the systematic random sampling (SRS) schedule. Station WD 36 (prohibited) was sampled 5 times. Table 3 shows the number of random samples taken during the 2009 sampling year; Appendix C shows random data collected in 2009 for all active stations in growing area WD.

Table 3. WD Samples Collected in 2009

Station	Class	Adverse	Random		Grand Total	Notes
		Closed	Closed	Open		
WD001.00	A			1	6	Reclassified from A to P on 2/12/09 due to lack of shoreline survey
	P		5			
WD007.00	CA			2	8	Reclassified from CA to P on 2/12/09 due to lack of shoreline survey
	P		6			
WD007.50	CA			2	8	Reclassified from CA to P on 2/12/09 due to lack of shoreline survey
	P		6			
WD008.00	CA			2	7	Reclassified from CA to P on 2/12/09 due to lack of shoreline survey
	P		5			
WD009.00	R			2	8	Reclassified from R to P on 2/12/09 due to lack of shoreline survey
	P		6			
WD009.10	P		6		6	Reclassified from R to P on 2/12/09 due to lack of shoreline survey
WD010.00	P		6		6	
WD013.00	P		6		6	Reclassified from R to P on 2/12/09 due to lack of shoreline survey
WD014.00	R			2	8	Reclassified from R



Station	Class	Adverse	Random		Grand Total	Notes
		Closed	Closed	Open		
	P		6			to P on 2/12/09 due to lack of shoreline survey
WD016.00	CA			1	7	Reclassified from CA to P on 2/12/09 due to lack of shoreline survey
	P		6			
WD017.00	P		6		6	Reclassified from R to P on 2/12/09 due to lack of shoreline survey
WD018.00	P		6		6	Reclassified from R to P on 2/12/09 due to lack of shoreline survey
WD019.00	CA			2	8	Reclassified from CA to P on 2/12/09 due to lack of shoreline survey
	P		6			
WD021.00	CA			2	7	Reclassified from CA to P on 2/12/09 due to lack of shoreline survey
	P		5			
WD022.00	CA			2	7	Reclassified from CA to P on 2/12/09 due to lack of shoreline survey
	P		5			
WD024.00	P		8		8	
WD024.50	P		6		6	
WD024.70	P		6		6	
WD028.00	P		6		6	
WD031.00	P		6		6	
WD032.00	P		6		6	
WD033.00	P		6		6	
WD034.00	P		6		6	
WD036.00	P		5		5	
WD037.00	P		6		6	
WD038.00	P		6		6	



Figures 4 and 5 shows the P90 trends over the past five years for stations in area WD which were previously classified as conditionally approved based on season, using year round data. During the transition from MPN to MF analysis method, the approved standard 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 2009 column on or above the 100 percent line does not meet the standard for approved classification.

Figure 4 shows the P90 trends for the past five years for stations in the Ogunquit River, during its former open status from November 1 through May 31; this area was reclassified to prohibited on February 13, 2009, due to an expired shoreline survey. Stations WD 7 has shown a steady increase in its P90 scores over the last five years. In 2007, WD 7 increased significantly from an approved standard to no longer meeting the NSSP approved standard. This station has continued to not meet the approved standard over the past three years and requires further water quality assessment. Station WD 8 still meets the approved NSSP standard; however this station has shown a significant increase in its P90 scores, and is currently within 10 percent of the standard. Stations WD 7.5 and 9.0 have shown no notable changes in water quality over the past 5 years. In 2010, it is recommended that the Ogunquit River be re-surveyed for pollution sources, and that a comprehensive data analysis be completed to determine the appropriate classification for the area.

Figure 4. Area WD P90 Scores for the Conditional Area in the Ogunquit River during the previous open status of November 1 – May 31 (expressed as the percent of the approved standard), 2005-2009

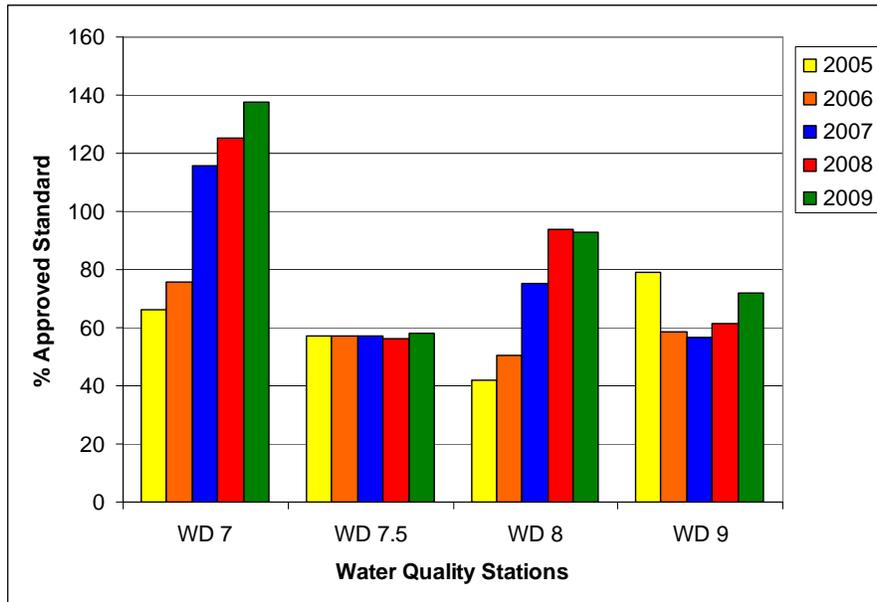
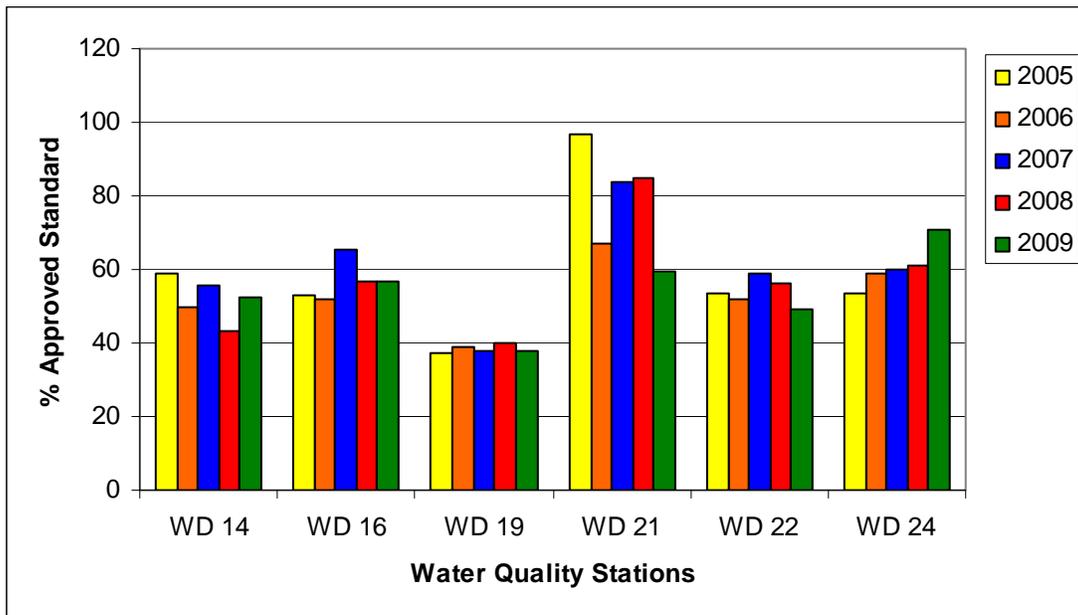




Figure 5 shows the P90 trends for the past five years for stations in the Webhannet River, during its former open status from January 1 through April 30; this area was reclassified to prohibited on February 13, 2009, due to an expired shoreline survey. At the end of the current review year, all stations which were previously classified as conditionally approved meet the approved NSSP standard during the open status. Stations WD 14, 16, 19 and 22 have shown no notable trends over the past 5 years. Station WD 21 has shown a significant decrease in scores over the past year, while station WD 24 has shown a slight increase in its P90 score over the past review years. After the required shoreline survey is completed and if no actual pollution sources are identified, these stations may be upgraded to a conditionally approved classification based on season.

Figure 5. Area WD P90 Scores for the Conditional Area in the Webhannet River during the previous open status of January 1 – April 30 (expressed as the percent of the approved standard), 2005-2009



Recommendations for Upward Classification

There are currently no stations in area WD being recommended for upward classification.

Shoreline Survey Activity

There was no shoreline activity completed in area WD during the 2009 review period. The entire shoreline of this growing area is currently classified as prohibited.



Aquaculture/Wet Storage Activity

There is no aquaculture or wet storage sites in area WD.

Summary

At the end of 2009, all stations in growing area WD were classified as prohibited as a result of an expired shoreline survey. While some of these stations met the approved NSSP standard in their former open status, they will remain classified as prohibited until future shoreline survey work and water quality assessment can be completed. A complete shoreline survey is being recommended for the 2010 sanitary report. A complete data assessment should be completed for all stations that were previously classified as conditionally approved based on season, in order to confirm that the open status dates, as defined by the management plan, remain the appropriate time frame for shellfish harvesting in area WD.



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.

RESTR_STD = the 90th percentile, at or below which the station would meet restricted criteria.



Appendix B. Transitioning to Membrane Filtration for Seawater and Pollution Source Samples

The Maine Department of Marine Resources has switched to a Membrane Filtration (MF) method 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.

During the transition the P90 standard for approved and restricted classification will migrate from the MPN to MF standards. 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.

This was the second 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 or "other" which 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 except the time which 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



Appendix C. Growing Area WD 2009 SRS Data

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	Col
WD001.00	11-Mar-09	LWY	H	E	4	30	R	PT	C	P	1.9
	22-Apr-09	LWY	E	SE	8	30	R	X	C	P	2
	17-Jun-09	LWY	LF	S	15	29	R	X	C	P	2
	12-Aug-09	LWY	F	E	19	30	R	X	C	P	2
	29-Sep-09	LNO	HE	W	17	32	R	X	C	P	4
	30-Nov-09	NEW	HF	CL	8	30	R	X	O	A	4
WD007.00	12-Jan-09	MLP	E	NE	0	31	R	X	C	CA	2
	09-Feb-09	EXT	E	CL	2	24	R	X	C	CA	1.9
	11-Mar-09	LWY	H	E	5	25	R	PT	C	P	6
	22-Apr-09	LWY	E	SE	10	8	R	X	C	P	70
	17-Jun-09	LWY	F	S	20	11	R	X	C	P	40
	12-Aug-09	LWY	F	E	21	5	R	X	C	P	1100
	29-Sep-09	LNO	HE	W	14	32	R	X	C	P	1.9
	30-Nov-09	NEW	HF	CL	9	30	R	X	C	P	2
WD007.50	12-Jan-09	MLP	E	CL	0	32	R	X	O	CA	2
	09-Feb-09	EXT	E	N	2	32	R	X	O	CA	1.9
	11-Mar-09	LWY	H	E	5	30	R	PT	C	P	12
	22-Apr-09	LWY	E	SE	12	6	R	X	C	P	54
	17-Jun-09	LWY	F	S	22	8	R	X	C	P	64
	12-Aug-09	LWY	F	E	22	5	R	X	C	P	1060
	29-Sep-09	LNO	HE	W	13	32	R	X	C	P	6
	30-Nov-09	NEW	HF	CL	9	30	R	X	C	P	2
WD008.00	12-Jan-09	MLP	E	NE	0	32	R	W	O	CA	1.9
	09-Feb-09	EXT	E	CL	1	32	R	X	O	CA	1.9
	11-Mar-09	LWY	H	E	5	28	R	PT	C	P	4
	22-Apr-09	LWY	E	SE	13	6	R	X	C	P	40
	26-Aug-09	EXT	HE	CL	19	32	R	X	C	P	2
	29-Sep-09	LNO	E	W	15	30	R	X	C	P	24
	30-Nov-09	NEW	HF	CL	9	30	R	X	C	P	3.6
WD009.00	12-Jan-09	MLP	E	NE	0	32	R	X	O	R	2
	09-Feb-09	EXT	E	N	1	31	R	X	O	R	1.9



Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	Col
	11-Mar-09	LWY	HE	E	5	30	R	PT	C	P	1.9
	22-Apr-09	LWY	E	SE	11	0	R	X	C	P	124
	17-Jun-09	LWY	F	S	20	6	R	X	C	P	70
	12-Aug-09	LWY	F		21	2	R	X	C	P	1140
	29-Sep-09	LNO	E	W	13	32	R	X	C	P	2
	30-Nov-09	NEW	HF	CL	9	30	R	X	C	P	6
WD009.10	11-Mar-09	LWY	HE	E	3	0	R	PT	C	P	10
	22-Apr-09	LWY	E	SE	11	0	R	X	C	P	84
	17-Jun-09	LWY	F	S	17	0	R	X	C	P	124
	12-Aug-09	LWY	F	E	20	0	R	X	C	P	1260
	29-Sep-09	LNO	E	W	16	22	R	X	C	P	160
	30-Nov-09	NEW	HF	CL	5	0	R	X	C	P	68
WD010.00	11-Mar-09	LWY	H	E	4	31	R	PT	C	P	1.9
	22-Apr-09	LWY	E	SE	8	28	R	X	C	P	1.9
	17-Jun-09	LWY	F	S	15	29	R	X	C	P	6
	12-Aug-09	LWY	F	E	19	24	R	X	C	P	280
	29-Sep-09	LNO	HE	W	14	32	R	X	C	P	1.9
	30-Nov-09	NEW	HF	CL	8	31	R	X	C	P	2
WD013.00	11-Mar-09	ELE	H	SE	1	28	R	PT	C	P	1.9
	22-Apr-09	ELE	E	E	11	10	R	P	C	P	44
	26-Aug-09	EXT	HE	SW	28	25	R	X	C	P	11
	29-Sep-09	ELE	H	W	14	28	R	P	C	P	46
	30-Nov-09	ELE	F	NW	6	24	R	X	C	P	10
	14-Dec-09	EXT	HE	CL	4	26	R	X	C	P	34
WD014.00	12-Jan-09	MLP	E	N	-1	32	R	X	O	R	1.9
	09-Feb-09	EXT	E	CL	0	31	R	X	O	R	1.9
	11-Mar-09	ELE	H	S	2	32	R	PT	C	P	1.9
	22-Apr-09	ELE	E	S	10	12	R	P	C	P	34
	17-Jun-09	ELE	LF	S	19	10	R	X	C	P	18
	12-Aug-09	ELE	LF	E	22	12	R	P	C	P	98
	29-Sep-09	ELE	HE	W	14	31	R	P	C	P	4
	30-Nov-09	ELE	HF	NW	7	30	R	X	C	P	2



Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	Col
WD016.00	09-Feb-09	EXT	HE	CL	-1	32	R	X	O	CA	2
	11-Mar-09	ELE	H	S	1	30	R	PT	C	P	1.9
	22-Apr-09	ELE	E	S	9	20	R	P	C	P	7.3
	17-Jun-09	ELE	LF	S	20	14	R	X	C	P	8
	12-Aug-09	ELE	LF	E	20	18	R	P	C	P	88
	29-Sep-09	ELE	H	W	14	30	R	P	C	P	27
	30-Nov-09	ELE	HF	NW	7	30	R	X	C	P	5.5
WD017.00	11-Mar-09	ELE	H	S	1	24	R	PTW	C	P	8
	22-Apr-09	ELE	E	S	11	4	R	P	C	P	38
	26-Aug-09	EXT	HE	CL	27	25	R	X	C	P	130
	29-Sep-09	ELE	HE	W	15	26	R	P	C	P	94
	30-Nov-09	ELE	HF	NW	6	20	R	X	C	P	24
	14-Dec-09	EXT	E	CL	4	6	R	X	C	P	56
WD018.00	11-Mar-09	ELE	H	S	1	22	R	PTW	C	P	16
	22-Apr-09	ELE	E	S	12	0	R	P	C	P	68
	26-Aug-09	EXT	HE	CL	28	28	R	X	C	P	26
	29-Sep-09	ELE	HE	W	15	28	R	P	C	P	160
	30-Nov-09	ELE	HF	NW	6	24	R	X	C	P	6
	14-Dec-09	EXT	E	CL	4	5	R	X	C	P	38
WD019.00	12-Jan-09	MLP	E	NW	0	32	R	X	O	CA	1.9
	09-Feb-09	EXT	HE	CL	1	33	R	X	O	CA	1.9
	11-Mar-09	ELE	HE	S	2	31	R	PT	C	P	1.9
	22-Apr-09	ELE	E	S	9	24	R	P	C	P	4
	17-Jun-09	ELE	LF	S	21	21	R	M	C	P	1.9
	12-Aug-09	ELE	F	E	21	24	R	PBM	C	P	42
	29-Sep-09	ELE	HE	S	13	31	R	P	C	P	4
	30-Nov-09	ELE	HF	NW	7	30	R	X	C	P	1.9
WD021.00	12-Jan-09	MLP	E	NW	-3	23	R	X	O	CA	1.9
	09-Feb-09	EXT	HE	CL	0	31	R	X	O	CA	4
	11-Mar-09	ELE	HE	S	1	25	R	PT	C	P	2
	22-Apr-09	ELE	E	S	13	0	R	P	C	P	26
	26-Aug-09	EXT	HE	CL	24	28	R	X	C	P	35



Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	Col
	29-Sep-09	ELE	E	S	15	23	R	P	C	P	380
	30-Nov-09	ELE	HF	NW	7	22	R	X	C	P	7.3
WD022.00	12-Jan-09	MLP	E	N	0	32	R	X	O	CA	1.9
	09-Feb-09	EXT	HE	CL	0	32	R	X	O	CA	12
	11-Mar-09	ELE	HE	S	1	26	R	PT	C	P	4
	22-Apr-09	ELE	E	S	11	21	R	P	C	P	18
	26-Aug-09	EXT	HE	SW	26	30	R	X	C	P	24
	29-Sep-09	ELE	E	S	14	30	R	P	C	P	110
	30-Nov-09	ELE	H	NW	7	28	R	X	C	P	3.6
WD024.00	12-Jan-09	MLP	E	W	0	32	R	X	C	P	1.9
	09-Feb-09	EXT	HE	CL	2	31	R	X	C	P	2
	11-Mar-09	ELE	HE	S	2	32	R	PT	C	P	27
	22-Apr-09	ELE	E	S	10	24	R	PD	C	P	4
	17-Jun-09	ELE	F	S	20	24	R	X	C	P	2
	12-Aug-09	ELE	F	E	18	28	R	P	C	P	16
	29-Sep-09	ELE	E	S	14	32	R	P	C	P	2
	30-Nov-09	ELE	H	NW	8	30	R	X	C	P	2
WD024.50	11-Mar-09	ELE	HE	S	2	32	R	PT	C	P	1.9
	04-May-09	LSM	E	SW	5	30	R	X	C	P	1.9
	17-Jun-09	ELE	F	S	17	29	R	X	C	P	1.9
	12-Aug-09	ELE	F	E	19	28	R	P	C	P	11
	29-Sep-09	ELE	E	S	13	32	R	P	C	P	2
	30-Nov-09	ELE	H	NW	7	30	R	X	C	P	44
WD024.70	11-Mar-09	ELE	HE	S	2	31	R	PT	C	P	2
	04-May-09	LSM	E	SW	8	30	R	X	C	P	1.9
	17-Jun-09	ELE	F	S	18	26	R	X	C	P	1.9
	12-Aug-09	ELE	F	E	19	25	R	P	C	P	70
	29-Sep-09	ELE	E		13	32	R	P	C	P	6
	30-Nov-09	ELE	H	NW	7	30	R	X	C	P	2
WD028.00	11-Mar-09	JW	HF	S	3	28	R	P	C	P	1.9
	22-Apr-09	NBR	HF	E	5	30	R	X	C	P	1.9



Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	Col
	17-Jun-09	NBR	E	CL	12	30	R	X	C	P	1.9
	12-Aug-09	NBR	LE	SW	18	30	R	X	C	P	15
	29-Sep-09	NBR	H	SE	13	30	R	X	C	P	2
	30-Nov-09	NBR	H	S	12	30	R	P	C	P	2
WD031.00	11-Mar-09	JW	HF	S	2	26	R	P	C	P	2
	22-Apr-09	NBR	H	E	5	27	R	X	C	P	4
	17-Jun-09	NBR	E	SE	13	27	R	X	C	P	2
	12-Aug-09	NBR	LE	SW	20	15	R	X	C	P	88
	29-Sep-09	NBR	H	SE	13	30	R	X	C	P	1.9
	30-Nov-09	NBR	H	S	10	30	R	P	C	P	1.9
WD032.00	11-Mar-09	JW	HF	S	2	25	R	P	C	P	2
	22-Apr-09	NBR	H	E	6	24	R	X	C	P	5.5
	17-Jun-09	NBR	E	CL	13	25	R	X	C	P	5.5
	12-Aug-09	NBR	L	SW	20	22	R	X	C	P	54
	29-Sep-09	NBR	E	SE	15	30	R	X	C	P	6
	30-Nov-09	NBR	HE	S	9	30	R	P	C	P	10
WD033.00	11-Mar-09	JW	HF	S	2	24	R	P	C	P	2
	22-Apr-09	NBR	H	E	7	1	R	X	C	P	52
	17-Jun-09	NBR	E	CL	15	4	R	X	C	P	20
	12-Aug-09	NBR	L	CL	22	4	R	X	C	P	120
	29-Sep-09	NBR	H	SE	14	30	R	X	C	P	4
	30-Nov-09	NBR	HE	CL	7	8	R	P	C	P	16
WD034.00	11-Mar-09	JW	HF	S	1	20	R	P	C	P	4
	22-Apr-09	NBR	H	E	6	25	R	X	C	P	6
	17-Jun-09	NBR	E	CL	12	27	R	X	C	P	6
	12-Aug-09	NBR	F	CL	23	28	R	X	C	P	8
	29-Sep-09	NBR	HE	SE	14	30	R	X	C	P	6
	30-Nov-09	NBR	HE	CL	7	26	R	P	C	P	1.9
WD036.00	11-Mar-09	JW	H	S	2	26	R	P	C	P	6
	22-Apr-09	NBR	H	SE	6	27	R	X	C	P	2
	17-Jun-09	NBR	E	SE	13	29	R	X	C	P	1.9



Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	Col
	29-Sep-09	NBR	HE	SE	14	28	R	X	C	P	80
	30-Nov-09	NBR	HE	S	7	30	R	P	C	P	8
WD037.00	11-Mar-09	JW	H	S	2	28	R	P	C	P	106
	22-Apr-09	NBR	HE	SE	7	28	R	X	C	P	8
	17-Jun-09	NBR	E	SE	13	29	R	X	C	P	2
	12-Aug-09	NBR	L	CL	19	30	R	X	C	P	1.9
	29-Sep-09	NBR	HE	SE	13	31	R	X	C	P	4
	30-Nov-09	NBR	E	SE	7	30	R	P	C	P	22
WD038.00	11-Mar-09	JW	H	S	2	30	R	P	C	P	38
	22-Apr-09	NBR	HE	SE	6	30	R	X	C	P	1.9
	17-Jun-09	NBR	E	SE	13	29	R	X	C	P	4
	12-Aug-09	NBR	L	E	18	30	R	X	C	P	2
	29-Sep-09	NBR	HE	SE	13	31	R	X	C	P	4
	30-Nov-09	NBR	E	S	7	30	R	P	C	P	6