GROWING AREA WL

New Meadows River

Towns of Harpswell, Brunswick, West Bath and Phippsburg

ANNUAL REVIEW for 2009

Report Date: March 9, 2010

Anna Bourakovsky

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
Current Annual Review of Management Plan(s) 8
Water Quality Review and Discussion 9
Recommendations for Upward Classification 17
Shoreline Survey Activity 17
Aquaculture/Wet Storage Activity 18
Classification Changes 18
Summary 18
Appendix A. 2009 Annual Review of Management Plan-New Meadows River Marina Conditional Area, Area 19A 19
Appendix B. 2009 Annual Review of Management Plan-Tottman Cove Seasonal Conditional Area, Area No. 19C 21
Appendix C. 2009 Annual Review of Management Plan-Hermit Island Seasonal Conditional Area, Area No. 19C 23
Appendix D. Key to Water Quality Table Headers 25
Appendix E. Growing Area WL 2009 Data 26

LIST OF TABLES

Table 1. Geomean and P90 Scores, Growing Area WL, 2004-2009 9
Table 2. Geomean and P90 Scores, New Meadows Marina Conditional Area 11
Table 3. Geomean and P90 Scores, Tottman Cove Conditional Area 12
Table 4. Geomean and P90 Scores, Hermit Island Conditional Area 12
Table 5. WL Sampling Effort for 2009 12

LIST OF FIGURES

Figure 1. Growing Area WL, with Active Water Stations and Pollution Closure Numbers 3
Figure 2. Growing Area WL, Upper New Meadows River Detail 4
Figure 3. Growing Area WL, Lower New Meadows River Detail 5
Figure 4. Area WL P90 Scores for Approved and Boundary Stations (expressed as the percent of the approved standard), 2007-2009 15
Figure 5. Area WL P90 Scores for Conditionally Approved Stations (expressed as the percent of the approved standard), Open Status, 2007-2009 16
Figure 6. Area WL P90 Scores for Restricted Stations (expressed as the percent of the restricted standard), 2007-2009 16

Figure 1. Growing Area WL, with Active Water Stations and Pollution Closure Numbers

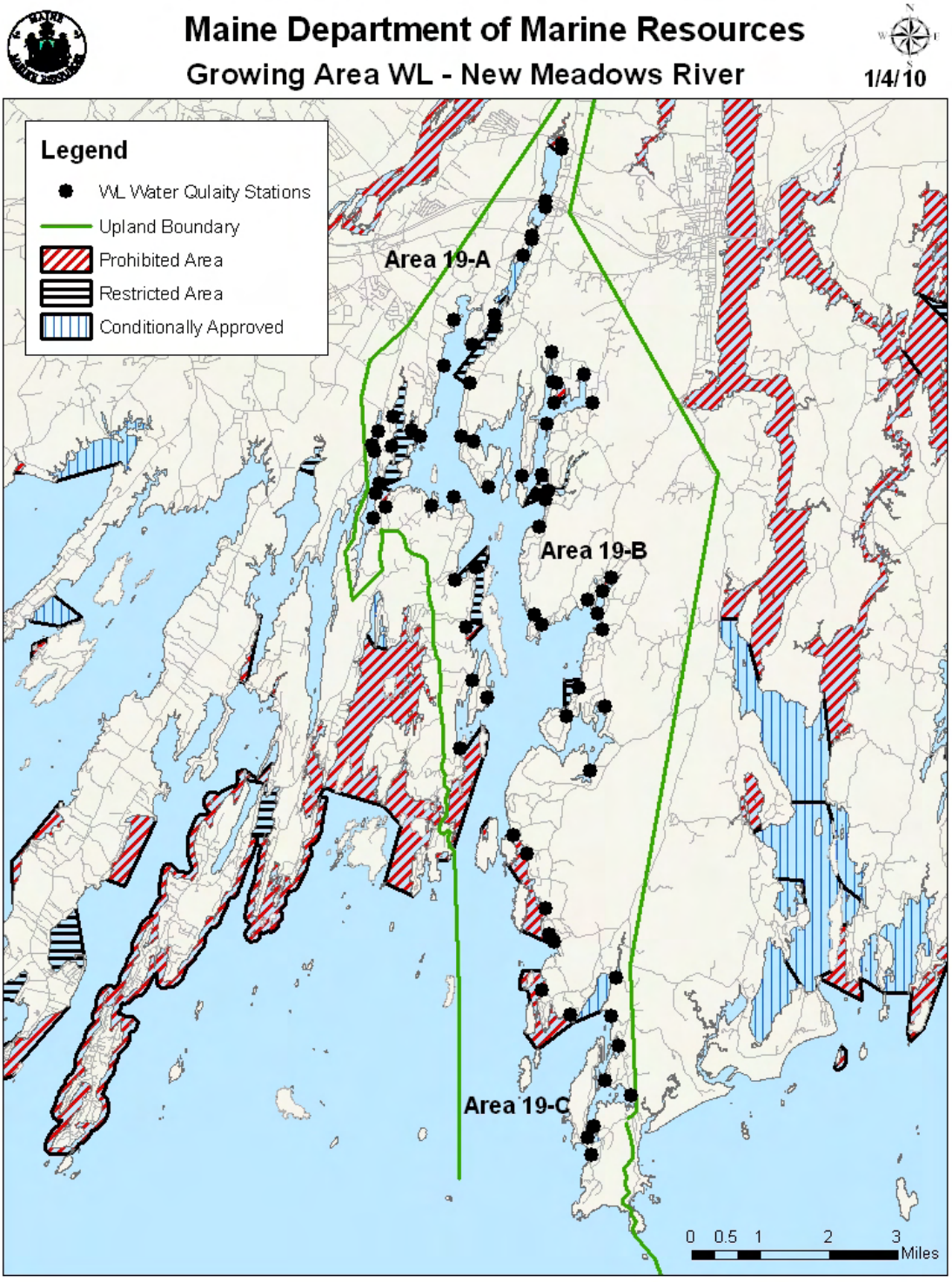


Figure 2. Growing Area WL, Upper New Meadows River Detail

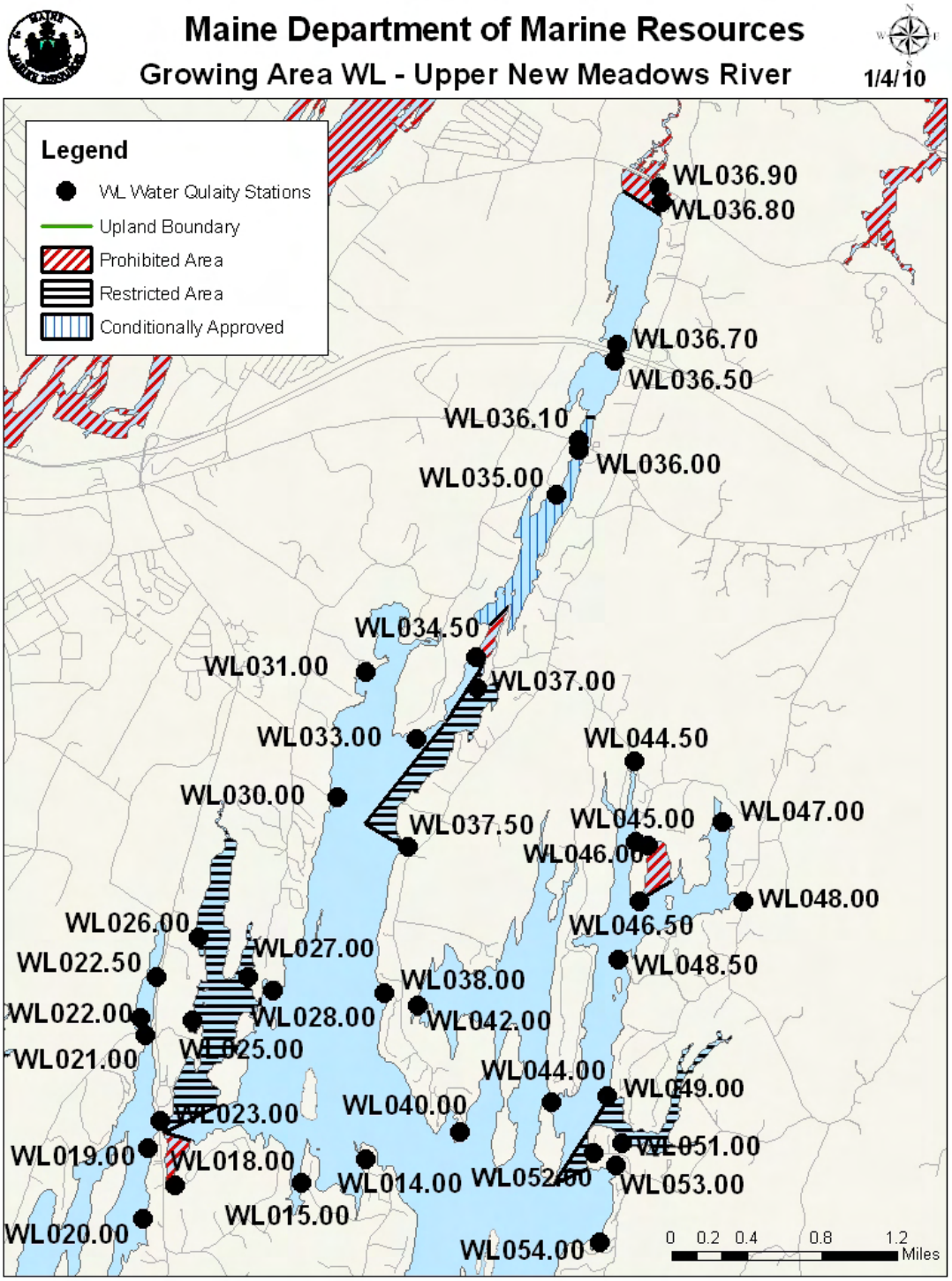
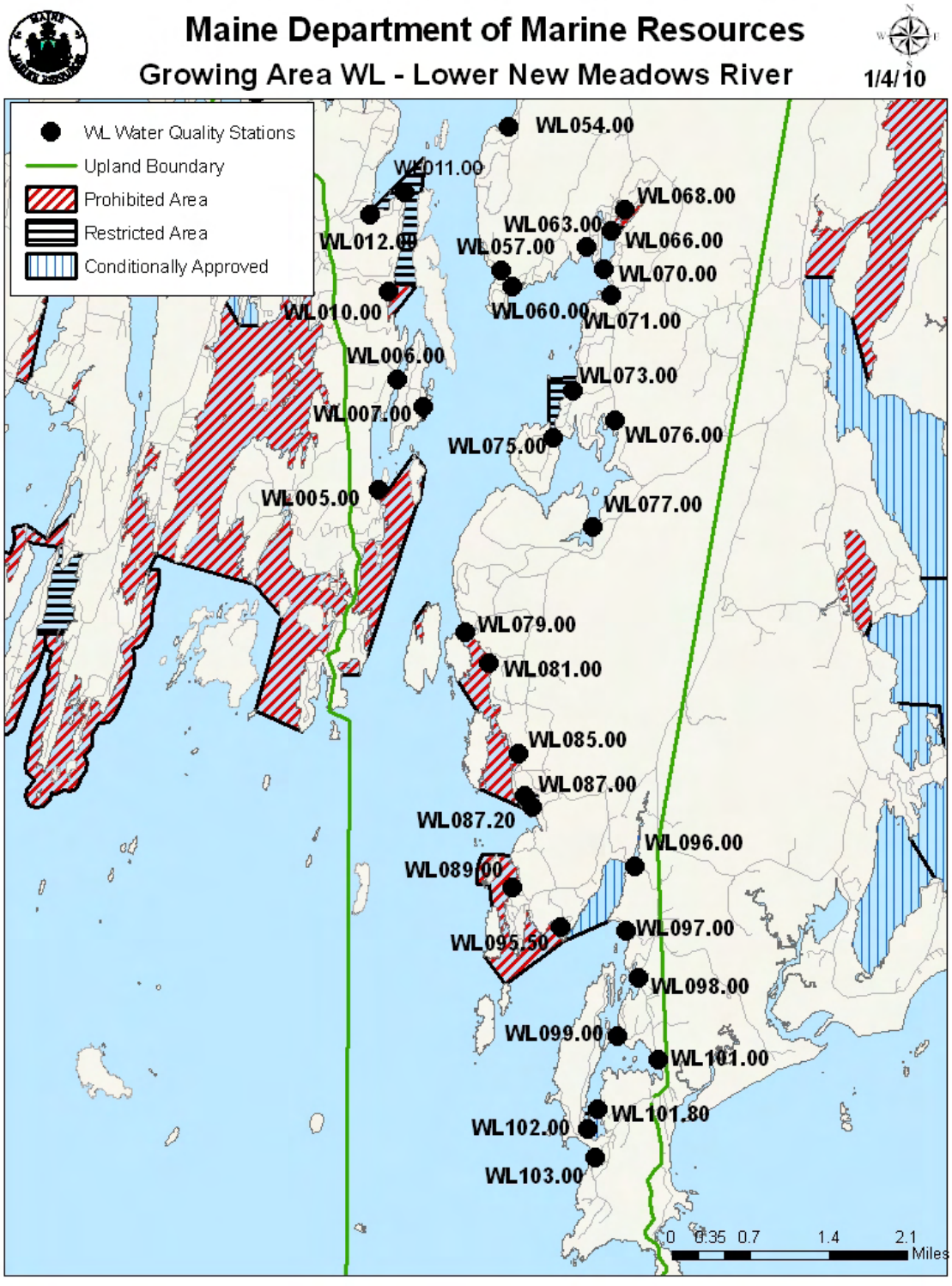


Figure 3. Growing Area WL, Lower New Meadows River Detail



Executive Summary

This is an annual report for growing area WL written in compliance with the requirements of the 2007 Model Ordinance and the National Shellfish Sanitation Program (NSSP). The next triennial report is due in 2013; the next sanitary survey report is due in 2010.

In 2009, two new stations were established (New Meadows Lake and Brown's Cove, West Bath); no stations were deactivated. No changes in pollution were noted during the review year. As a result of this annual review, a portion of Woodward Cove, Brunswick was downgraded in classification, from approved to restricted, due to water quality exceeding the approved standard. No areas in growing area WL are being proposed for an upward classification at this time.

Growing Area Description

Shellfish Growing Area WL begins at Fort Point, Cundys Harbor and ends at Small Point, Phippsburg and is comprised of the New Meadows River, including Buttermilk and Doughty Coves. The towns in this growing area are Harpswell, Brunswick, West Bath and Phippsburg. There are no municipal treatment facilities in this growing area. All residences have private waste disposal systems most of which are in ground systems. There are also 18 licensed overboard discharge systems, and several outhouses, chemical toilets or composting toilets located throughout the area, predominantly at seasonal properties. There is one marina in area WL, located near the head of the river, and several piers which provide support to local lobstering and fishing activities. There is also a large multi-season resort, Sebasco Harbor Resort, located in the Phippsburg portion of the growing area. There are no industrial discharges in the area.

Current Classification(s)

At the end of 2009, shellfish growing area WL currently had areas classified as:

Approved: 42 stations

Conditionally Approved

- Pollution Area No. 19-A New Meadows Lake, Upper New Meadows River and Middle Ground (Bath, Brunswick, West Bath and Harpswell); sample stations monitoring the conditionally approved (seasonal based on a marina) area- WL 35.0, 36.0 and 36.1.
- Pollution Area No. 19-C Lower New Meadows River (Harpswell to Phippsburg): sample station monitoring the Tottman Cove conditionally approved area based on season- WL 96

- Pollution Area No. 19-C Lower New Meadows River (Harpswell to Phippsburg): sample station monitoring the Hermit Island conditionally approved area based on season- WL 102

Restricted

- Pollution Area No. 19-A, Woodward Cove- WL 25, 26, and 27 (restricted due to non-point source pollution); and Middle Ground- WL 37 and 37.5 (restricted due to non-point source pollution).
- Pollution Area 19-B Middle New Meadows River (West Bath, Harpswell and Phippsburg): Dam Cove- WL 51 and 52 (restricted due to non-point source pollution); and the area east of Hen Island- WL 73 (restricted due to non-point source pollution).
- Pollution Area 19-C Lower New Meadows River (Harpswell to Phippsburg); Round Cove- WL 87 (restricted due to identified potential pollution sources)

Prohibited

- Pollution Area No. 19-A New Meadows Lake, Upper New Meadows River and Middle Ground (Bath, Brunswick, West Bath and Harpswell), Rosedale Point: WL 34.5 (prohibited due to an active OBD); Upper New Meadows Lake Marsh: WL 36.9, due to non-point source pollution
- Pollution Area 19-B Middle New Meadows River (West Bath, Harpswell and Phippsburg): Brighams Cove; WL 68 (prohibited due to identified pollution source and non-point source pollution); Wallace Shore, WL 10 (prohibited due to identified pollution source)
- Pollution Area 19-C Lower New Meadows River (Harpswell to Phippsburg): WL 81, 85, 89 and 98 (Prohibited due to the presence of active OBDs).

There are six stations in area WL that are new stations (<30 data points); these stations do not have a classification assigned to them.

Please visit the DMR website to view legal notices for growing area WL:

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

Activity during Review Period

The following changes in classification took place in 2009:

Area 19A

July 16, 2009: Area No. 19-A, Upper New Meadows River (Bath to Harpswell); amendment reclassified the New Meadows Lake from restricted to approved, due to a recently updated sanitary survey and water quality meeting the approved standard, and expands the prohibited area in Upper New Meadows Lake to provide a dilution area for stormwater. This classification change was based on a recommendation in the 2008 WL Triennial report.

August 21, 2009: Area No. 19-A, Upper New Meadows River (Bath to Harpswell); amendment reclassified Indian Rest Cove (Harpswell) from approved to prohibited, due the presence of a malfunctioning septic system.

September 29, 2009: Area No. 19-A, Upper New Meadows River (Bath to Harpswell); amendment modified the size of the Middle Ground restricted area, by adjusting the boundaries of this restricted area to extend to the next water quality monitoring station meeting the approved standard.

Area 19B

June 4, 2009: Area No. 19-B, Middle New Meadows River (West Bath, Harpswell, Phippsburg); amendment created a larger prohibited area surrounding an over board discharge on Dingley Island, Harpswell, based on a revised dilution calculation**.**

Area 19C

No changes in classification in 2009.

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

There are three conditionally managed areas in growing area WL:

1) New Meadows Marina Conditionally Approved Area, Open November 16- April 30
Conditionally approved (CA) Stations WL 35, 36 and 36.1

2) Tottman Cove Seasonal Conditionally Approved Area, Open October 1- June 30
CA Station WL 96

3) Hermit Island Seasonal Conditionally Approved Area, Open November 16- May 30
CA Station: WL 102; Boundary Station: WL 101.8 (A)

Conditional area management plans can be found in DMR growing area files.

Current Annual Review of Management Plan(s)

In 2009, the New Meadows Marina Conditional area met the condition of its management plan. Stations WL 35 and 36 and 36.1 were sampled six times in the open status. Prior to its seasonal reopening date of November 16th, a data check was completed to ensure that it was meeting the approved standard in the open status. A boat count was completed on April 26th for closed status, and November 2nd for open status. At the end of 2009, all three stations met their NSSP standard in the open status.

In 2009, the Tottman Cove Seasonal Conditional area met the condition of its management plan. This area was sampled a total of 8 times during its open status. Prior to its seasonal reopening date of October 1st, a data check was completed to ensure that it was meeting the approved standard in the open status. At the end of 2009, station WL 96 met its NSSP classification standard during the open status.

The Hermit Island conditional area and its management plan were implemented in May 2008. Prior to this reclassification, the area was classified as restricted. In 2009, this area was sampled a total of 6 times during the open status. Prior to its seasonal reopening date of November 16th, a data check was completed to ensure that it was meeting the approved standard in the open status. At the end of 2009, station WL 102 met its NSSP classification standard during the open status.

Please refer to Appendices A, B and C for complete reviews of these conditional area management plans.

Water Quality Review and Discussion

Table 1 lists all active approved, restricted and prohibited stations in Growing Area WL, 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 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 2009. Station WL 25 (highlighted in yellow), which is classified as restricted, serves as a boundary station between the restricted and approved areas and therefore must meet the approved standard. At the end of 2009, this station failed to meet the approved standard, and therefore the boundary line between the restricted and approved areas must extended down to the next station meeting the approved standard (WL 23). This change was completed on January 4, 2010.

Table 1. Geomean and P90 Scores, Growing Area WL, 2004-2009

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL005.00	P	30	21	2.9	0.4	93	9.6	35	195	3/21/2005
WL006.00	A	30	20	2.6	0.26	23	5.8	36	199	3/8/2004
WL007.00	A	30	20	3.2	0.32	28	8.4	36	199	3/21/2005
WL010.00	P	30	20	3.2	0.36	34	9.6	36	199	3/21/2005
WL011.00	R	30	20	6.3	0.68	320	47.8	36	199	3/21/2005
WL012.00	A	30	22	3.5	0.35	40	10.2	35	191	3/21/2005

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL014.00	A	30	21	4.1	0.54	200	20.8	35	195	3/21/2005
WL015.00	A	30	21	3.3	0.38	80	10.5	35	195	3/21/2005
WL018.00	P	30	23	5	0.67	1700	37.4	34	187	7/13/2005
WL019.00	A	30	21	3	0.32	23	7.7	35	195	3/21/2005
WL020.00	A	30	21	5	0.46	130	19.9	35	195	3/21/2005
WL021.00	A	30	20	4	0.46	140	15.9	36	199	3/21/2005
WL022.00	A	30	20	4.9	0.52	146	22.9	36	199	3/21/2005
WL022.50	New	10	10	5.1	0.64	96		31	163	8/5/2008
WL023.00	A	30	20	3.3	0.36	44	9.7	36	199	3/21/2005
WL025.00	R	30	20	5.6	0.72	720	47.4	36	199	3/21/2005
WL026.00	R	30	21	7.3	0.7	460	58.5	35	195	3/21/2005
WL027.00	R	30	20	4.3	0.5	460	18.9	36	199	3/21/2005
WL028.00	A	30	20	3.8	0.52	460	18	36	199	3/21/2005
WL030.00	A	30	20	3.9	0.38	31	12.4	36	199	3/21/2005
WL031.00	A	30	20	3.8	0.4	40	12.4	36	199	3/21/2005
WL033.00	A	30	20	4.4	0.48	93	18.6	36	199	3/21/2005
WL034.50	P	30	20	4.2	0.52	240	20.2	36	199	11/29/2004
WL036.50	A	30	20	3.5	0.32	18	9.1	36	199	3/21/2005
WL036.70	A	30	20	3.2	0.43	98	11.4	36	199	3/21/2005
WL036.80	New	2	2	10.1	1.02	54				9/16/2009
WL036.90	P	30	20	4.8	0.52	98	22.9	36	199	3/21/2005
WL037.00	R	30	20	4.6	0.6	711	28	36	199	3/21/2005
WL037.50	R	30	20	4.1	0.58	460	23.1	36	199	2/7/2005
WL038.00	A	30	20	2.5	0.25	23	5.4	36	199	2/7/2005
WL040.00	A	30	20	4.2	0.58	240	23.4	36	199	2/7/2005
WL042.00	A	30	20	3	0.35	93	8.6	36	199	11/22/2004
WL044.00	A	30	20	2.5	0.22	29	5	36	199	7/13/2005
WL044.50	A	30	20	4.9	0.6	1100	29.3	36	199	2/7/2005
WL045.00	A	30	20	4.5	0.65	1140	32	36	199	2/7/2005
WL046.00	P	30	22	5.5	0.78	1700	56.4	35	191	8/29/2005
WL046.50	New	8	8	2.6	0.32	16				2/24/2009
WL047.00	A	30	20	5.2	0.59	460	30.2	36	199	2/7/2005
WL048.00	A	30	20	3.6	0.56	1200	19.1	36	199	2/7/2005
WL048.50	A	30	20	3.3	0.38	75	10.2	36	199	4/9/2003
WL049.00	A	30	20	3.1	0.49	460	13.5	36	199	2/7/2005
WL051.00	R	30	20	4.6	0.57	460	25.4	36	199	2/7/2005
WL052.00	R	30	20	5.1	0.7	1220	40.8	36	199	2/7/2005
WL053.00	A	30	20	4	0.54	240	20	36	199	2/7/2005
WL054.00	A	30	20	3.1	0.37	93	9.6	36	199	3/21/2005
WL057.00	A	30	20	3.8	0.61	460	23.6	36	199	2/7/2005

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL060.00	A	30	20	2.8	0.36	43	8.2	36	199	2/7/2005
WL063.00	A	30	20	3.1	0.36	43	9.2	36	199	2/7/2005
WL066.00	A	30	17	4.2	0.53	240	20.8	37	212	7/8/2003
WL068.00	P	30	19	5.5	0.72	1100	47.6	36	203	11/22/2004
WL070.00	A	30	20	3.2	0.35	43	9.2	36	199	3/22/2005
WL071.00	A	30	20	4.4	0.52	118	20.9	36	199	3/22/2005
WL073.00	R	30	20	4.1	0.67	1700	30.1	36	199	3/22/2005
WL075.00	A	30	20	2.6	0.22	15	5.1	36	199	3/22/2005
WL076.00	A	30	20	3.4	0.41	43	11.6	36	199	3/22/2005
WL077.00	A	30	20	4.5	0.54	240	22.6	36	199	9/30/2004
WL079.00	A	30	20	2.4	0.25	43	5.2	36	199	3/22/2005
WL081.00	P	30	20	4.8	0.64	460	31.9	36	199	3/22/2005
WL085.00	P	30	20	6.7	0.71	1200	55.6	36	199	3/22/2005
WL087.00	R	30	20	4	0.56	150	21.7	36	199	8/22/2005
WL087.20	New	12	12	2.5	0.24	10				2/27/2008
WL089.00	P	30	20	3.4	0.39	48	10.9	36	199	7/5/2005
WL095.50	New	27	20	2.4	0.17	9.1		34	190	9/27/2005
WL097.00	A	30	20	2.3	0.14	9.1	3.5	36	199	9/8/2003
WL098.00	P	30	21	4.4	0.51	100	20.3	35	195	7/5/2005
WL099.00	A	30	20	2.6	0.25	34	5.6	36	199	3/22/2005
WL101.00	A	30	20	3.2	0.32	43	8.2	36	199	7/5/2005
WL101.80	New	17	17	2.8	0.41	56		31	163	2/27/2008
WL103.00	A	30	20	3.1	0.36	126	9.3	36	199	3/22/2005

Geomean and P90 scores for conditionally approved stations in WL are presented in Tables 2, 3 and 4; data reflects open status only. All conditional stations in area WL met the NSSP approved standards in 2009. The Hermit Island conditional area is new as of 2008, and currently does not have 30 data points during the open status (using data from 1999- 2009). In 2010, this conditional area will have additional samples collected in the open status period (beyond the minimum number of samples required to be collected following SRS schedule), in order to have more data points in the open status of the more recent sampling years.

Table 2. Geomean and P90 Scores, New Meadows Marina Conditional Area, Open Status 11/16 to 4/30

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL035.00	CA	30	19	2.6	0.2	13	4.8	36	203	11/29/2004
WL036.00	CA	30	19	2.9	0.37	128	8.9	36	203	11/29/2004
WL036.10	CA	30	18	3.1	0.4	54	10.5	37	208	2/23/2004

Table 3. Geomean and P90 Scores, Tottman Cove Conditional Area, Open Status 10/1 to 6/30

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL096.00	CA	30	21	3.6	0.46	54	14.2	35	195	2/9/2004

Table 4. Geomean and P90 Scores, Hermit Island Conditional Area, Open Status 11/16 to 5/31

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL102.00	CA	26	13	2.7	0.26	43	6	38	221	4/29/1999

In 2009, all approved (except WL 77), restricted and prohibited stations that were active at the beginning of the year were sampled at least 6 times following the SRS schedule. Station WL 77 was sampled 6 times following SRS, however, one SRS sample was collected during a flood closure (entire growing area in closed status); this station was scheduled to be sampled as part of an SRS run on February 24, 2009, however, the sample was missed due to ice. The New Meadows Marina Conditionally Approved stations (WL 36, 36, 36.1) were sampled 6 times in the open status. The Tottman Cove conditionally approved station (WL 96) was sampled 8 times in the open status. The conditionally approved station in the Hermit Island Conditionally Approved area was sampled six times in the open status.

Table 5. WL Sampling Effort for 2009

Station	Class	Adverse		Extra		Random		Total	Comments
		Closed	Open	Closed	Open	Closed	Open		
WL005.00	P					7		7	
WL006.00	A					1	6	7	
WL007.00	A					1	6	7	
WL010.00	P					7		7	
WL011.00	R		1			1	6	8	
WL012.00	A					1	6	7	
WL014.00	A					1	6	7	
WL015.00	A	22				1	6	29	Flood Station
WL018.00	A					1	4	9	
	P			2		2			
WL019.00	A					1	6	7	
WL020.00	A					1	6	7	
WL021.00	A					1	6	7	
WL022.00	A	24				1	6	31	Flood Station
WL022.50	New		1			1	6	8	
WL023.00	A					1	6	7	
WL025.00	R					1	6	7	
WL026.00	R					1	6	7	
WL027.00	R					1	6	7	

Station	Class	Adverse		Extra		Random		Total	Comments
		Closed	Open	Closed	Open	Closed	Open		
WL028.00	A					1	6	7	
WL030.00	A					1	6	7	
WL031.00	A					1	6	7	
WL033.00	A					1	6	7	
WL034.50	P					7		7	
WL035.00	CA			1		5	6	12	
WL036.00	CA			1		5	6	12	
WL036.10	CA			1		5	6	12	
WL036.50	A					1	6	7	
WL036.70	A	2				1	6	9	Flood Station
WL036.80	New						2	2	New Station in 2009
WL036.90	P					7		7	
WL037.00	R						6	6	
WL037.50	R						6	6	
WL038.00	A						6	6	
WL040.00	A						6	6	
WL042.00	A						6	6	
WL044.00	A						6	6	
WL044.50	A						6	6	
WL045.00	A						6	6	
WL046.00	P			2		6		8	
WL046.50	New				2		6	8	New Station in 2009
WL047.00	A						6	6	
WL048.00	A						6	6	
WL048.50	A						6	6	
WL049.00	A						6	6	
WL051.00	R	8					6	14	Flood Station
WL052.00	R						6	6	
WL053.00	A						6	6	
WL054.00	A						6	6	
WL057.00	A						6	6	
WL060.00	A						6	6	
WL063.00	A						6	6	
WL066.00	A	23					6	29	Flood Station
WL068.00	P					6		6	
WL070.00	A					1	6	7	
WL071.00	A					1	6	7	
WL073.00	R					1	6	7	
WL075.00	A					1	6	7	

Station	Class	Adverse		Extra		Random		Total	Comments
		Closed	Open	Closed	Open	Closed	Open		
WL076.00	A					1	6	7	
WL077.00	A	25				1	5	31	Flood Station
WL079.00	A					1	6	7	
WL081.00	P					7		7	
WL085.00	P					7		7	
WL087.00	R					1	6	7	
WL087.20	New					1	6	7	
WL089.00	P					7		7	
WL095.50	New					7		7	
WL096.00	CA				1	3	8	12	
WL097.00	A					1	6	7	
WL098.00	P					7		7	
WL099.00	A					1	6	7	
WL101.00	A					1	6	7	
WL101.80	New					1	10	11	
WL102.00	CA	4				5	6	15	
WL103.00	A					1	6	7	

Figures 4, 5 and 6 show the P90 scores, expressed as a percent of the approved or restricted standard, for all approved, conditionally approved, and restricted stations in growing area WL; figure 5 shows data collected during the open status only. 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 standard; any station showing the 2009 column on or above 100 percent does not meet its classification standard. Overall, 29 of the approved stations have shown their P90 scores at 50 percent or less of the approved standard, at the end of the current review year; an additional ten stations are between 50 and 75 percent of the approved standard. Station WL 25 (boundary station with restricted area) surpassed the approved classification standard at the end of 2009, and was downgraded to restricted; the boundary was extended to the next station meeting the approved standard (WL 23). The Town of Brunswick has been conducting shoreline work in the vicinity of the failing stations in order to investigate the cause of the high fecal scores. Stations WL 44.50, 45, 47 and 73 are within 20 percent of the approved standard; stations WL 44.5 and 47 have shown relatively consistent scores over the past 3 years, while station WL 45 has shown a significant increase in scores. Station WL 73 has shown an improvement in scores from 2007 and 2008, and then a slight increase in score between 2008 and 2009 review year. The cause of the high scores is currently unknown. All four stations are located in areas that will be re-surveyed in 2010. All conditionally approved areas are currently showing P90 scores well below the approved standard (under 50%) (Figure 5). All restricted stations are showing steady or improving water quality (Figure 6).

Figure 4. Area WL P90 Scores for Approved and Boundary Stations (expressed as the percent of the approved standard), 2007-2009

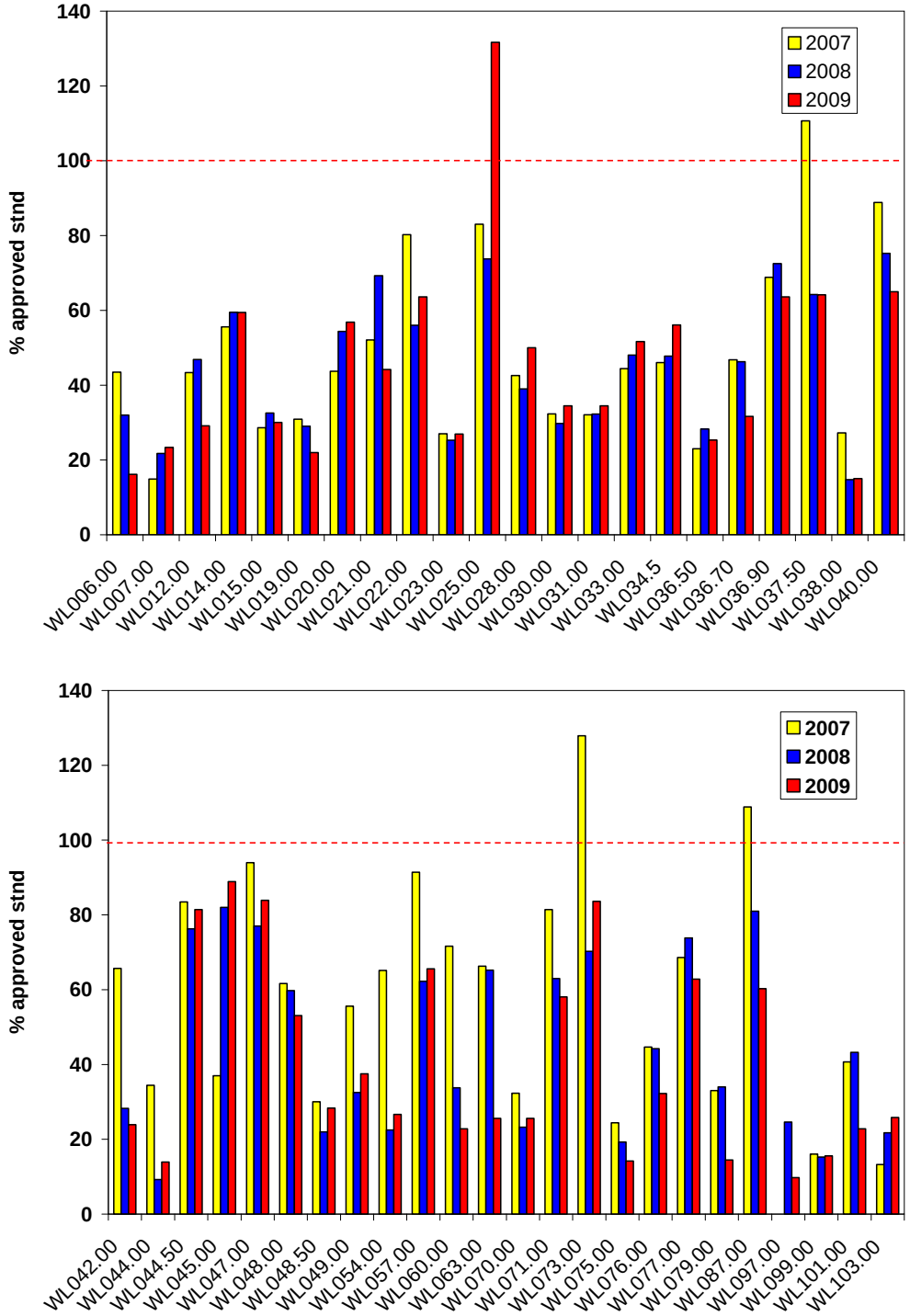


Figure 5. Area WL P90 Scores for Conditionally Approved Stations (expressed as the percent of the approved standard), Open Status, 2007-2009

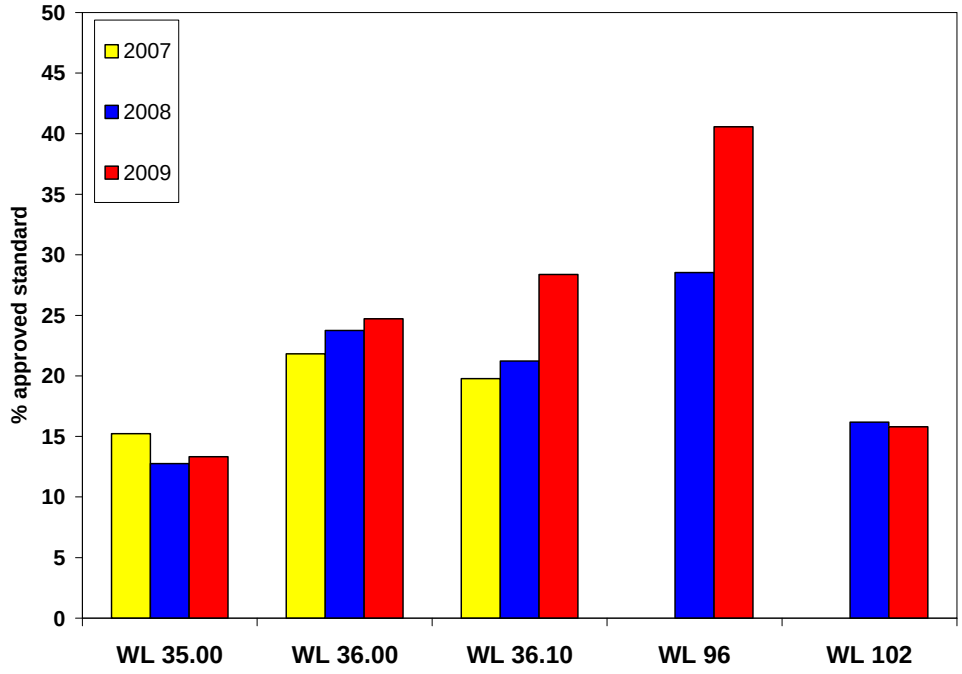
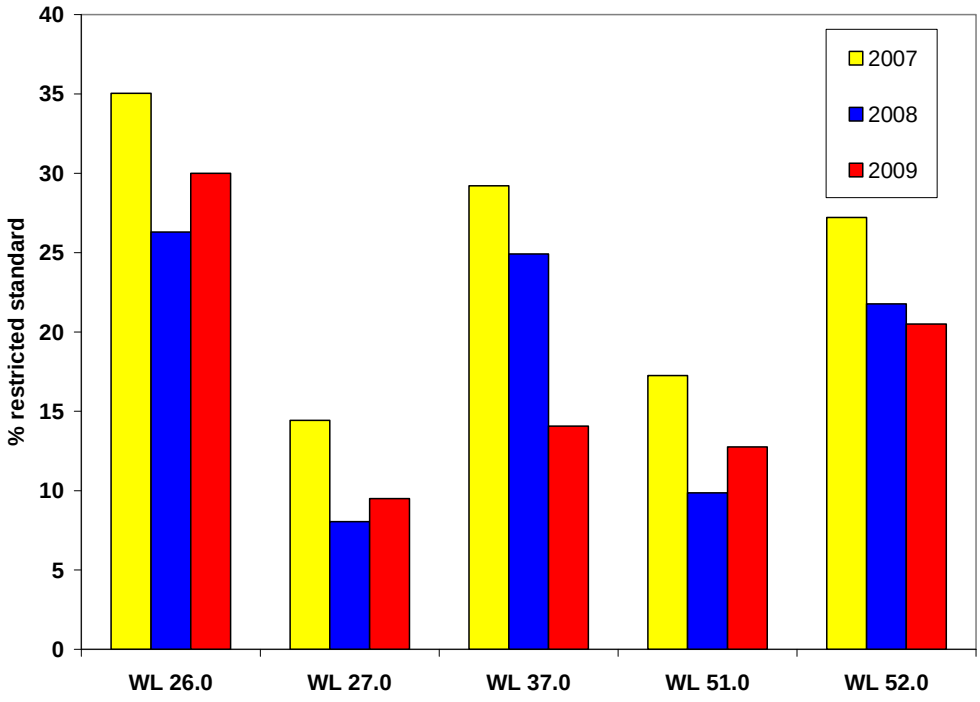


Figure 6. Area WL P90 Scores for Restricted Stations (expressed as the percent of the restricted standard), 2007-2009



Recommendations for Upward Classification

No areas are being recommended for upward classification.

Shoreline Survey Activity

A drive through survey of WL; portions of Harpswell, New Meadows Lake area and West Bath was completed on June 17, 2009; no changes in pollution sources were noted. A drive through survey in WL Phippsburg was completed on April 22, 2009; no changes in pollution were noted.

August 20, 2009: DMR and Harpswell Shellfish Warden surveyed 18 properties in Harpswell (Doughty Cove area, Maps 48, 49 and 50). One actual problem was noted. One questionable system (no obvious problem observed at the time) was also noted. One system could not be located. One property that pastures two horses was also surveyed; this property drains towards area WK (Tondreaus Cove); no obvious drainages were observed from this property to the shore; it is not likely to contribute to fecal pollution in area WK. All potential and actual problems were reported to town Codes Enforcement Officer for review and follow up. The property with a noted actual problem is currently unoccupied and for sale. It will be inspected by LPI prior to new occupancy of the cabin; new tenants will be advised to correct the problem. This property will be revisited in summer 2010, and if problem is not corrected, an appropriate closure will be required.

On **August 20, 2009**: DMR and Harpswell Shellfish Warden, along with town LPI Bill Wells responded to a complaint at a property on Indian Rest Rd. There was a malfunction of a leach field, with the breakout occurring right near a drainage ditch to Indian Rest Cove. This was an Actual/Indirect pollution source that could impact the cove after rainfall. A closure was implemented on August 21, 2009 (Pollution Area 19-A, Section A6). The town confirmed that the malfunction was fixed on November 14, 2009.

A drive through survey was completed for the Indian Rest area on August 20, 2009. No changes in pollution sources were observed at the time.

August 28, 2009: DMR surveyed 33 properties in West Bath (parts of maps U13, U12, R04, U05, U06). One actual problem was found (located in seasonally closed area, Pollution Area 19-A, Section B), and several properties had systems which required follow-up with codes/LPI to look over system plans (though no evident problems were noted). The confirmed malfunction was fixed before the area opened for season.

September 24, 2009: DMR surveyed 25 properties in West Bath (Browns Cove area); this area was closed due to a malfunctioning septic which was fixed in the summer of 2009. The septic system was confirmed to be repaired and functioning properly in Spring 2009. No actual problems were noted at the time of the survey; two potential problems were noted. Potential problems will be revisited in Summer 2010.

Aquaculture/Wet Storage Activity

There is one wet storage permit in growing area WL, located off Wallace Shore Rd. There are currently two shellfish lease sites in this growing area. One is located in the upper New Meadows River, north of the train tracks in the approved area. The second lease site is located in Mill Cove, West Bath, off the peninsula that is monitored by stations WL 45.0 and WL 46.0.

Please visit the Aquaculture website for more information:

http://www.maine.gov/dmr/aquaculture/leaseinventory2006/newmeadowsriver.htm

Classification Changes

A portion of Woodward Cove, Brunswick was downgraded in classification as a result of this annual review; this change in classification was completed on January 4, 2010.

Summary

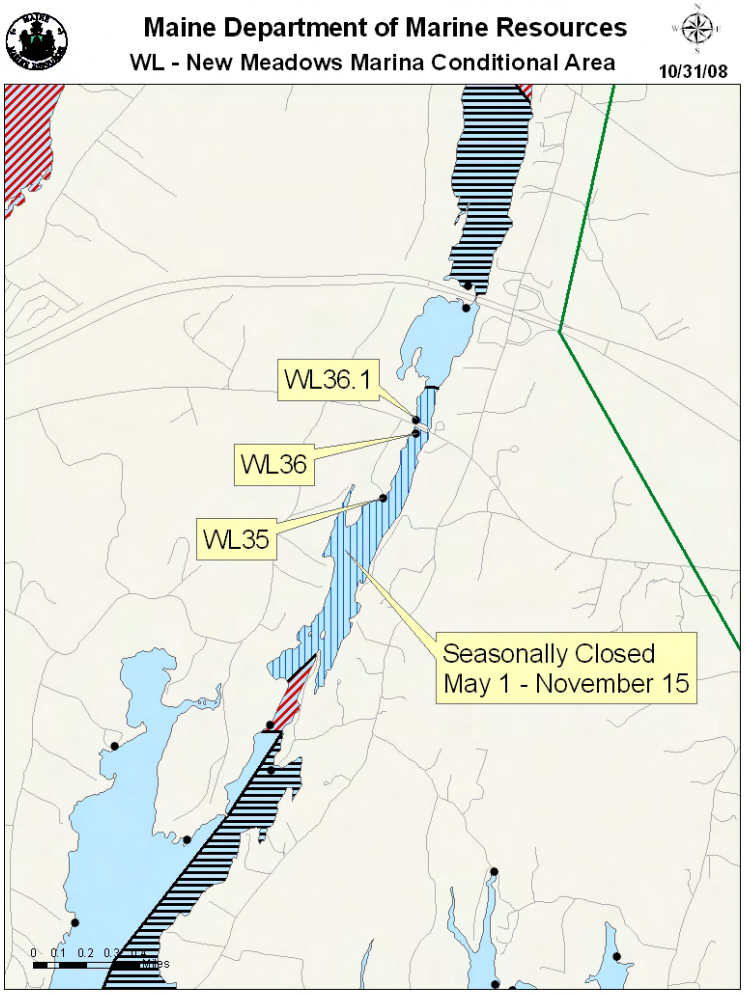
With the exception of one station in Woodward Cove, stations in growing area WL continue to maintain their NSSP classification. A portion of Woodward Cove, Brunswick was downgraded in classification, from approved to restricted, due to water quality exceeding the approved standard. No areas in growing area WL are being proposed for an upward classification at this time.

The following work is recommended for the 2010 review year: 1) updating the sanitary survey on the remaining shoreline in West Bath and all shoreline in Phippsburg by the end of 2010; 2) follow up work with DEP on properties identified as potential problems along Rosedale Point and King's Point, West Bath; 3) accelerated sampling at stations WL 11 and WL 18, to determine if water quality is improving following a remediation of pollution sources (holding tank replaced near WL 11, septic system replaced near WL 18). Additional samples during both open and closed status are recommended at the two seasonal conditional areas in Phippsburg.

Appendix A. 2009 Annual Review of Management Plan-New Meadows River Marina Conditional Area, Area 19A

Scope

The seasonal portion of the Upper New Meadows River is located between Rosedale Point and the railroad trestle north of the Bath Road, in the New Meadows River, between Brunswick and West Bath. This seasonal conditional area is based on the presence of a marina, and is closed to shellfish harvest from May 1 through November 15, due to the presence of boats at the New Meadows Marina. Monitoring stations WL 35, 36 and 31.1 are located within this conditional area, and monitor water quality both in the open and closed status. Typically, water quality data meets approved standards year-round, however the area is classified as conditionally approved because of the potential pollution from boats in the river at the marina during the times of operation late spring through mid-fall.



Compliance with management plan

Per the management plan, in 2009, this conditional area closed to shellfish harvest on May 1st and reopened on November 16th. Prior to re-opening, a data check was completed to verify that the area was meeting NSSP approved water quality standards in the open status. DMR is also required to complete a visual check prior to the area seasonal closure and seasonal re-opening, to confirm the presence/absence of 10 or more boats with heads, which are capable of discharging waste to the conditional area. In 2009, a seasonal closure check was conducted on April 26th; no boats with heads were present. The fall re-opening marina check was completed on November 2nd; less than 10 boats with heads were present and the marina was closing for the season and the docks and slips were being removed from the water.

Adequacy of reporting and cooperation of involved persons

This management plan does not require reporting by non-DMR personnel.

Compliance with approved growing area criteria

All stations in this conditional area met their NSSP standard during the open status.

Table 1. Geomean and P90 Scores, New Meadows Marina Conditional Area, Open Status 11/16 to 4/30

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL035.00	CA	30	19	2.6	0.2	13	4.8	36	203	11/29/2004
WL036.00	CA	30	19	2.9	0.37	128	8.9	36	203	11/29/2004
WL036.10	CA	30	18	3.1	0.4	54	10.5	37	208	2/23/2004

Water sampling compliance history

Stations WL 35, 36 and 36.1 were sampled six times in the open status.

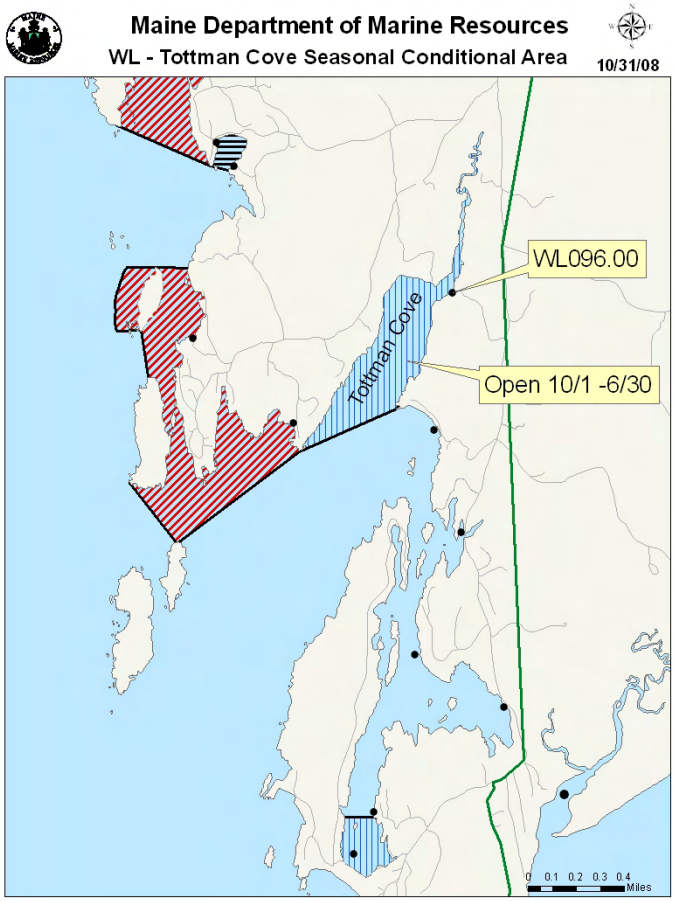
Analysis-Recommendations

No recommendations for changes to the current management plan or conditional area classification status are required at this time.

Appendix B. 2009 Annual Review of Management Plan-Tottman Cove Seasonal Conditional Area, Area No. 19C

Scope

Tottman Cove is located in Phippsburg, in the New Meadows River Growing Area. The area was classified as conditionally approved based on season on May 30, 2008; previously to the reclassification, the area was classified as restricted. Water quality in the area is monitored by station WL 096.00. Tottman Cove is closed from July 1 through September 30 because of occasional seasonal non-point pollution, possibly due to an increase in shore usage in the summer months.



Compliance with management plan

In 2009, the area reopened on October 1st, after a review of water quality data confirmed that the area met the approved standards during the open status.

Adequacy of reporting and cooperation of involved persons

This management plan does not require reporting by non-DMR personnel.

Compliance with approved growing area criteria

All stations in this conditional area met their NSSP standard during the open status (Table 1).

Table 1. Geomean and P90 Scores, Tottman Cove Conditional Area, Open Status 10/1 to 6/30

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL096.00	CA	30	21	3.6	0.46	54	14.2	35	195	2/9/2004

Water sampling compliance history

In 2009, this area was sampled a total of eight times in the open status.

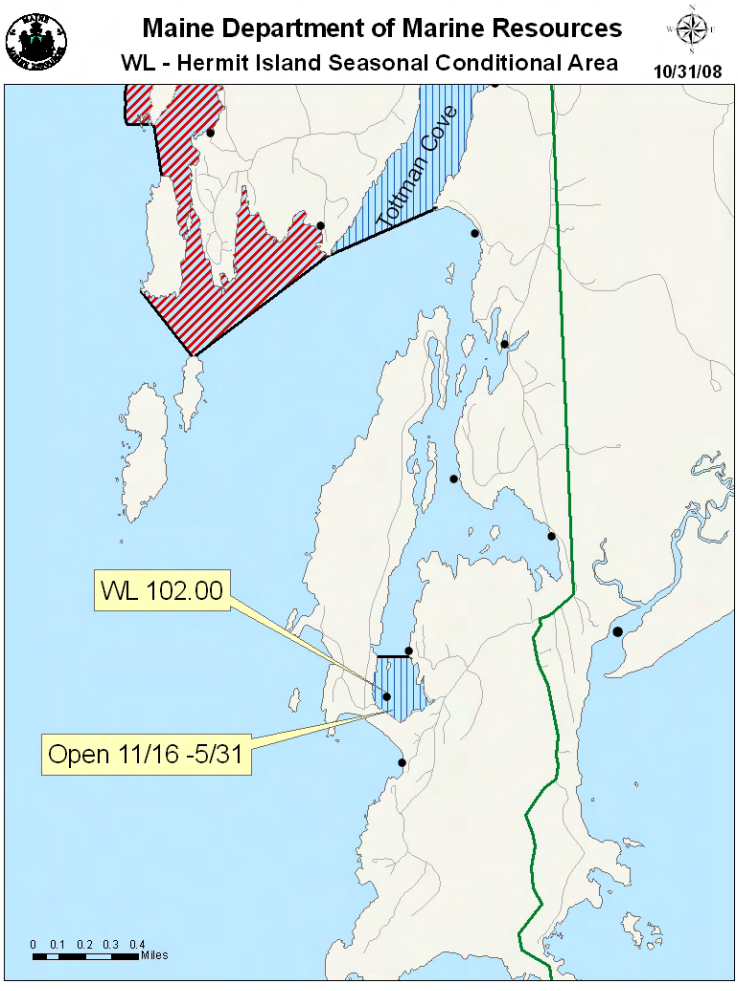
Analysis-Recommendations

No recommendations for changes to the current management plan or conditional area classification status are required at this time. This area is recommended for shoreline survey in 2010.

Appendix C. 2009 Annual Review of Management Plan-Hermit Island Seasonal Conditional Area, Area No. 19C

Scope

Hermit Island seasonal conditional area is located in Phippsburg, in the New Meadows River Growing Area. The area was classified as conditionally approved based on season on May 30, 2008; previously to the reclassification, the area was classified as restricted. Water quality in the area is monitored by station WL 102.00. Hermit Island Conditional Area is closed from June 1 through November 15 because of occasional seasonal non-point pollution, possibly due to an increase in shore usage in the summer months.



Compliance with management plan

In 2009, the area reopened on November 16th, after a review of water quality data confirmed that the area met the approved standards during the open status.

Adequacy of reporting and cooperation of involved persons

This management plan does not require reporting by non-DMR personnel.

Compliance with approved growing area criteria

All stations in this conditional area met their NSSP standard during the open status (Table 1.

Table 1. Geomean and P90 Scores, Hermit Island Conditional Area, Open Status 11/16 to 5/31, 1999-2009

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std	Min_Date
WL102.00	CA	26	13	2.7	0.26	43	6	38	221	4/29/1999

Water sampling compliance history

In 2009, this area was sampled a total of six times in the open status.

.

Analysis-Recommendations

No recommendations for changes to the current management plan or conditional area classification status are required at this time. This area is recommended for shoreline survey in 2010.

Appendix D. 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 E. Growing Area WL 2009 Data

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
WL005.00	2/25/2009	GBR	E	CL	4	32	R		C	P	<2
	5/6/2009	EXT	E	CL	10	29	R	P	C	P	<2
	6/8/2009	GBR	E	CL	21	30	R		C	P	<2
	8/3/2009	GBR	E	CL	20	26	R		C	P	<2
	9/16/2009	GBR	HE	CL	16	30	R		C	P	<2
	11/3/2009	GBR	HE		9	31	R		C	P	4
WL006.00	2/25/2009	GBR	E	CL	2	30	R		O	A	<2
	5/6/2009	EXT	E	CL	10	29	R	P	O	A	2
	6/8/2009	GBR	E	CL	16	30	R		O	A	<2
	8/3/2009	GBR	E	CL	23	26	R		O	A	2
	9/16/2009	GBR	HE	CL	15	31	R		O	A	2
	11/3/2009	GBR	HE		9	31	R		O	A	<2
WL007.00	2/25/2009	GBR	E	CL	4	32	R		O	A	<2
	5/6/2009	EXT	E	CL	10	29	R	P	O	A	<2
	6/8/2009	GBR	E	CL	15	30	R		O	A	<2
	8/3/2009	GBR	E	CL	20	26	R		O	A	6
	9/15/2009	GBR	E		15	32	R		O	A	2
	11/3/2009	GBR	HE		9	31	R		O	A	7.3
WL010.00	2/25/2009	GBR	E	CL	5	32	R		C	P	<2
	5/6/2009	EXT	HE	CL	11	29	R	P	C	P	2
	6/8/2009	GBR	E	CL	18	30	R	W	C	P	2
	8/3/2009	GBR	E	CL	22	26	R		C	P	<2
	9/15/2009	GBR	E		17	30	R		C	P	11
	11/3/2009	GBR	HE		9	31	R		C	P	<2
WL011.00	2/25/2009	GBR	E	CL	4	32	R		O	R	<2
	5/6/2009	EXT	HE	CL	10	30	R	P	O	R	<2
	6/8/2009	GBR	E	CL	16	30	R		O	R	6
	8/3/2009	GBR	E	CL	23	27	R		O	R	6
	9/15/2009	GBR	E		19	32	R		O	R	40
	11/3/2009	GBR	HE		9	31	R		O	R	<2
WL012.00	2/25/2009	GBR	E	CL	0	30	R		O	A	<2
	5/6/2009	EXT	HE	CL	11	28	R	P	O	A	<2
	6/8/2009	GBR	E	CL	20	30	R		O	A	4
	8/3/2009	GBR	E	CL	22	27	R		O	A	6
	9/16/2009	GBR	HE	CL	14	32	R		O	A	<2
	11/3/2009	GBR	E		9	31	R		O	A	8
WL014.00	5/6/2009	EXT	HE	CL	11	29	R	P	O	A	4
	6/8/2009	GBR	E	CL	20	30	R		O	A	2
	7/20/2009	GBR	E		22	27	R		O	A	2
	8/3/2009	GBR	E	CL	25	24	R		O	A	25

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	9/16/2009	GBR	E	CL	16	31	R		O	A	<2
	11/3/2009	GBR	E		11	31	R		O	A	<2
WL015.00	2/25/2009	GBR	E	CL	2	30	R		O	A	<2
	5/6/2009	EXT	HE	CL	9	30	R	P	O	A	<2
	6/8/2009	GBR	E	CL	18	30	R		O	A	<2
	8/3/2009	GBR	E	CL	23	28	R		O	A	4
	9/16/2009	GBR	E	CL	16	31	R		O	A	2
	11/3/2009	GBR	E		10	30	R		O	A	<2
WL018.00	3/30/2009	MLP	HE	N	5	16	R	P	O	A	34
	5/6/2009	EXT	H	CL	11	29	R	P	O	A	<2
	6/8/2009	GBR	E	CL	19	30	R		O	A	<2
	8/3/2009	GBR	E	CL	23	27	R		O	A	2
	9/16/2009	GBR	E	CL	16	31	R		C	P	88
	11/3/2009	GBR	E		10	29	R		C	P	<2
	12/2/2009	GBR	E	CL	6	28	E		C	P	<2
	12/16/2009	GBR	HE	CL	4	28	E		C	P	2
WL019.00	2/25/2009	GBR	E	CL	3	30	R		O	A	<2
	5/6/2009	EXT	H	CL	10	29	R	P	O	A	<2
	6/8/2009	GBR	E	CL	18	30	R		O	A	<2
	8/3/2009	GBR	E	CL	24	28	R		O	A	<2
	9/15/2009	GBR	LE		18	31	R		O	A	<2
	11/3/2009	GBR	E		10	30	R		O	A	<2
WL020.00	5/6/2009	EXT	H	CL	12	29	R	P	O	A	4
	6/8/2009	GBR	E	CL	20	28	R		O	A	2.8
	7/20/2009	GBR	E		21	28	R		O	A	6
	8/3/2009	GBR	E	CL	24	26	R		O	A	3.6
	9/16/2009	GBR	E	CL	14	28	R		O	A	6
	11/3/2009	GBR	E		9	24	R		O	A	<2
WL021.00	2/25/2009	DD	E	CL	-2	30	R		O	A	<2
	4/21/2009	DD	E	SE	11	28	R	P	O	A	4
	6/8/2009	DD	H	CL	17	30	R		O	A	<2
	8/3/2009	DD	E	CL	21	29	R		O	A	4
	9/16/2009	DD	HF	SE	15	31	R		O	A	2
	10/28/2009	DD	H	CL	8	30	R		O	A	<2
WL022.00	2/25/2009	DD	HE	CL	-2	30	R	W	O	A	<2
	4/21/2009	DD	E	E	11	22	R	P	O	A	26
	6/8/2009	DD	H	CL	15	30	R		O	A	<2
	8/3/2009	DD	HE	CL	24	28	R		O	A	2
	9/16/2009	DD	HF	CL	15	30	R		O	A	<2
	10/28/2009	DD	H	CL	8	30	R		O	A	18
WL022.50	4/21/2009	DD	E	SE	10	20	R	P	O	A	46
	6/8/2009	DD	H	CL	15	29	R		O	A	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	8/3/2009	DD	HE	CL	21	28	R		O	A	2
	9/16/2009	DD	HF	CL	16	31	R		O	A	2
	10/28/2009	DD	H	CL	8	30	R		O	A	<2
WL023.00	2/25/2009	DD	HE	CL	0	30	R		O	A	<2
	4/21/2009	DD	E	E	10	28	R	P	O	A	<2
	6/8/2009	DD	H	CL	15	30	R		O	A	<2
	8/3/2009	DD	HE	CL	20	29	R		O	A	<2
	9/16/2009	DD	HF	SE	15	31	R		O	A	2
	10/28/2009	DD	H	W	8	31	R		O	A	<2
WL025.00	2/25/2009	DD	H	CL	-1	8	R		O	R	<2
	4/21/2009	DD	E	E	11	23	R	P	O	R	720
	6/8/2009	DD	H	CL	17	30	R		O	R	<2
	8/3/2009	DD	HE	CL	21	29	R		O	R	4
	9/16/2009	DD	HF	SE	14	31	R	W	O	R	<2
	10/28/2009	DD	H	CL	8	30	R		O	R	2
WL026.00	2/25/2009	DD	HE	CL	-2	30	R		O	R	<2
	4/21/2009	DD	E	E	11	25	R	P	O	R	46
	6/8/2009	DD	HF	CL	16	30	R		O	R	<2
	8/3/2009	DD	HE	CL	24	27	R		O	R	10
	9/16/2009	DD	HF	SE	14	31	R		O	R	3.6
	10/28/2009	DD	H	CL	8	31	R		O	R	<2
WL027.00	2/25/2009	DD	H	CL	-1	31	R		O	R	<2
	4/21/2009	DD	E	E	10	28	R	PW	O	R	31
	6/8/2009	DD	HF	CL	16	29	R		O	R	<2
	8/3/2009	DD	HE	CL	21	29	R		O	R	<2
	9/16/2009	DD	HF	SE	15	31	R		O	R	2
	10/28/2009	DD	H	CL	8	31	R		O	R	<2
WL028.00	2/25/2009	DD	H	CL	-1	31	R		O	A	<2
	4/21/2009	DD	E	E	9	28	R	PW	O	A	52
	6/8/2009	DD	HF	CL	15	30	R		O	A	<2
	8/3/2009	DD	HE	CL	22	29	R		O	A	2
	9/16/2009	DD	HF	SE	14	31	R		O	A	<2
	10/28/2009	DD	H	CL	9	31	R		O	A	<2
WL030.00	2/25/2009	DD	H		-1	30	R		O	A	<2
	4/21/2009	DD	HE	E	8	28	R	P	O	A	31
	6/8/2009	DD	HF	CL	16	30	R		O	A	<2
	8/3/2009	DD	HE	CL	23	29	R		O	A	5.5
	9/16/2009	DD	HF	SE	14	31	R		O	A	<2
	10/28/2009	DD	H	W	8	30	R		O	A	2
WL031.00	3/30/2009	MLP	HE	N	5	27	R	P	O	A	2
	4/21/2009	DD	HE	E	9	28	R	P	O	A	<2
	6/8/2009	DD	HF	CL	18	30	R	W	O	A	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	8/3/2009	DD	HE	CL	22	28	R		O	A	5.5
	9/16/2009	DD	F	SE	15	31	R		O	A	4
	10/28/2009	DD	H	W	8	30	R		O	A	<2
WL033.00	2/25/2009	DD	HF	CL	0	30	R		O	A	<2
	4/21/2009	DD	HE	SE	9	28	R	P	O	A	<2
	6/8/2009	DD	HF	CL	17	30	R		O	A	<2
	8/3/2009	DD	HE	CL	22	28	R		O	A	2
	9/16/2009	DD	F	SE	15	31	R		O	A	2
	10/28/2009	DD	H	W	8	30	R		O	A	2
WL034.50	2/25/2009	DD	HF	CL	-1	28	R		C	P	<2
	4/21/2009	DD	HE	SE	8	28	R	P	C	P	8
	6/8/2009	DD	HF	CL	19	29	R		C	P	<2
	8/3/2009	DD	HE	CL	23	26	R		C	P	8
	9/16/2009	DD	E	SE	18	30	R		C	P	2
	10/28/2009	DD	H	CL	8	30	R		C	P	<2
WL035.00	1/13/2009	DD	H	S	-3	30	R		O	CA	<2
	2/25/2009	DD	F	CL	-1	30	R		O	CA	<2
	3/18/2009	DD	F	S	4	25	R		O	CA	<2
	4/21/2009	DD	HE	SE	10	28	R	P	O	CA	<2
	5/11/2009	MCMU	F	NW	11	24	E		C	CA	2
	6/8/2009	DD	HF	CL	19	28	R	M	C	CA	<2
	8/3/2009	DD	H	CL	22	26	R		C	CA	2
	9/16/2009	DD	E	SE	18	29	R		C	CA	6
	10/28/2009	DD	H	CL	8	30	R		C	CA	<2
	12/1/2009	DD	H	CL	6	28	R	P	O	CA	2
	12/15/2009	MCMU	HE	CL	5	26	R	P	O	CA	2
WL036.00	1/13/2009	DD	HF	CL	-2	30	R		O	CA	<2
	2/25/2009	DD	HF	CL	-3	30	R		O	CA	<2
	3/18/2009	DD	LF	S	4	26	R		O	CA	<2
	4/21/2009	DD	HE	SE	10	27	R	P	O	CA	<2
	5/11/2009	MCMU	F	NW	10	25	E		C	CA	<2
	6/8/2009	DD	HF	CL	19	28	R	M	C	CA	<2
	8/3/2009	DD	H	CL	24	28	R		C	CA	2
	9/16/2009	DD	E	CL	19	29	R	M	C	CA	2
	10/28/2009	DD	H	CL	8	28	R	M	C	CA	2
	12/1/2009	DD	H	CL	5	28	R	P	O	CA	<2
	12/15/2009	MCMU	HE	CL	5	25	R	P	O	CA	2
WL036.10	1/13/2009	DD	HF	CL	-5	27	R		O	CA	<2
	2/25/2009	DD	F	CL	-3	30	R		O	CA	<2
	3/18/2009	DD	LF	S	3	12	R		O	CA	<2
	4/21/2009	DD	E	E	12	22	R	P	O	CA	40
	5/11/2009	MCMU	F	NW	12	22	E		C	CA	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	6/8/2009	DD	E	CL	22	26	R	M	C	CA	2
	8/3/2009	DD	LE	SE	28	24	R		C	CA	<2
	9/16/2009	DD	E	CL	20	28	R		C	CA	10
	10/28/2009	DD	HE	CL	10	26	R		C	CA	<2
	12/1/2009	DD	H	CL	6	28	R	P	O	CA	2
	12/15/2009	MCMU	HE	CL	5	25	R	P	O	CA	2
WL036.50	2/25/2009	DD	F	CL	-3	25	R		O	A	<2
	4/21/2009	DD	E	E	13	22	R	P	O	A	<2
	6/8/2009	DD	E	CL	23	26	R		O	A	6
	8/3/2009	DD	E	SE	26	24	R		O	A	<2
	9/16/2009	DD	E	CL	19	28	R		O	A	2
	10/28/2009	DD	E	CL	10	26	R		O	A	<2
WL036.70	2/25/2009	DD	F	CL	-4	4	R		O	R	2
	4/21/2009	DD	E	E	13	20	R	P	O	R	<2
	6/8/2009	DD	E	CL	22	25	R		O	R	<2
	8/3/2009	DD	E	SE	27	20	R		O	R	<2
	9/16/2009	DD	E	CL	20	26	R		O	R	9.1
	10/28/2009	DD	E	CL	10	22	R		O	R	2
WL036.80	9/16/2009	DD	E	CL	21	26	R		O	A	54
	10/28/2009	DD	E	CL	11	28	R		O	A	<2
WL036.90	3/30/2009	MLP	HE	N	5	2	R	P	C	P	38
	4/21/2009	DD	E	E	14	20	R	P	C	P	10
	6/8/2009	DD	E	CL	23	25	R		C	P	<2
	8/3/2009	DD	E	CL	30	16	R		C	P	15
	9/16/2009	DD	E	CL	23	26	R		C	P	<2
	10/28/2009	DD	E	CL	11	26	R		C	P	<2
WL037.00	2/24/2009	WARS	HE	N	1	30	R		O	R	<2
	4/20/2009	WARS	H	N	8	28	R		O	R	<2
	6/8/2009	WARS	F	NW	11	30	R		O	R	2
	8/10/2009	WARS	HF	S	20	30	R		O	R	4
	9/16/2009	WARS	HF	N	15	31	R		O	R	4
	10/27/2009	WARS	HE	N	9	29	R		O	R	2
WL037.50	3/23/2009	MLP	H	NW		28	R		O	R	<2
	4/20/2009	WARS	H	N	7	29	R		O	R	<2
	6/8/2009	WARS	HF	NW	12	29	R		O	R	<2
	8/10/2009	WARS	H	SW	23	28	R		O	R	2
	9/16/2009	WARS	HF	NW	15	31	R		O	R	<2
	10/27/2009	WARS	HE	N	9	30	R		O	R	2
WL038.00	2/24/2009	WARS	HE	N	2	28	R		O	A	<2
	4/20/2009	WARS	H	N	7	29	R		O	A	<2
	6/8/2009	WARS	HF	NW	15	28	R		O	A	<2
	8/10/2009	WARS	H	SW	21	30	R		O	A	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	9/16/2009	WARS	HF	NW	14	31	R		O	A	<2
	10/27/2009	WARS	HE	N	10	30	R		O	A	<2
WL040.00	2/24/2009	WARS	HE	N	4	30	R		O	A	<2
	4/20/2009	WARS	H	N	7	28	R		O	A	<2
	6/8/2009	WARS	HF	NW	14	28	R		O	A	11
	8/10/2009	WARS	H	SW	17	30	R		O	A	<2
	9/16/2009	WARS	HF	N	13	32	R		O	A	<2
	10/27/2009	WARS	HE	N	9	30	R		O	A	<2
WL042.00	3/23/2009	MLP	H	NE		28	R		O	A	<2
	4/20/2009	WARS	H	N	7	28	R		O	A	<2
	6/8/2009	WARS	HF	NW	16	28	R		O	A	<2
	8/10/2009	WARS	H	SW	22	30	R		O	A	<2
	9/16/2009	WARS	HF	N	15	31	R		O	A	5.5
	10/27/2009	WARS	HE	N	8	30	R		O	A	2
WL044.00	2/24/2009	WARS	E	N	4	30	R		O	A	<2
	4/20/2009	WARS	H	N	7	29	R		O	A	<2
	6/8/2009	WARS	HF	NW	16	30	R		O	A	29
	8/10/2009	WARS	H	SW	19	30	R		O	A	<2
	9/16/2009	WARS	HF	N	15	31	R		O	A	2
	10/27/2009	WARS	E	N	7	29	R		O	A	2
WL044.50	3/23/2009	MLP	H	CL		22	R		O	A	<2
	4/20/2009	WARS	HE	N	9	28	R		O	A	2
	6/8/2009	WARS	HF	NW	17	27	R		O	A	4
	8/10/2009	WARS	H	SW	27	28	R		O	A	2
	9/16/2009	WARS	H	NW	15	31	R		O	A	5.5
	10/27/2009	WARS	E	N	10	24	R		O	A	2
WL045.00	3/23/2009	MLP	HE	N		28	R		O	A	<2
	4/20/2009	WARS	HE	N	9	29	R		O	A	<2
	6/8/2009	WARS	HF	NW	16	28	R		O	A	<2
	8/10/2009	WARS	H	SW	23	30	R		O	A	<2
	9/1/2009	WARS	HF	N	14	31	R		O	A	<2
	10/27/2009	WARS	E	N	9	28	R		O	A	10
WL046.00	3/23/2009	MLP	HE	CL		29	R		C	P	<2
	4/20/2009	WARS	HE	N	9	28	R		C	P	<2
	6/8/2009	WARS	H	NW	17	28	R		C	P	<2
	8/10/2009	WARS	H	SW	20	30	R		C	P	<2
	9/16/2009	WARS	H	N	16	31	R		C	P	2
	10/27/2009	WARS	E	N	9	29	R		C	P	2
	12/2/2009	EXT	H	CL	8	29	E		C	P	2
	12/16/2009	EXT	HF	W	5	28	E		C	P	4
WL046.50	2/24/2009	WARS	E	N	3	30	R		O	A	<2
	8/10/2009	WARS	H	SW	20	30	R		O	A	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	9/16/2009	WARS	H	N	14	32	R		O	A	<2
	10/27/2009	WARS	E	N	9	28	R		O	A	<2
	12/2/2009	EXT	HE	SW	8	30	E		O	A	<2
	12/16/2009	EXT	H	W	5	28	E		O	A	3.6
WL047.00	3/23/2009	MLP	HE	N		28	R	W	O	A	<2
	4/20/2009	WARS	HE	N	9	28	R		O	A	<2
	6/8/2009	WARS	H	NW	17	28	R		O	A	2
	8/10/2009	WARS	H	SW	21	30	R		O	A	4
	9/16/2009	WARS	H	NW	14	31	R		O	A	8
	10/27/2009	WARS	E	N	9	28	R		O	A	<2
WL048.00	2/24/2009	WARS	E			10	R		O	A	<2
	4/20/2009	WARS	HE	N	10	28	R		O	A	<2
	6/8/2009	WARS	H	NW	17	26	R		O	A	<2
	8/10/2009	WARS	H	SW	25	28	R		O	A	2
	9/16/2009	WARS	H	N	15	31	R		O	A	2
	10/27/2009	WARS	E	N	10	28	R		O	A	<2
WL048.50	2/24/2009	WARS	E	N	4	30	R		O	A	<2
	4/20/2009	WARS	HE	N	7	29	R		O	A	<2
	6/8/2009	WARS	H	NW	15	30	R		O	A	10
	8/10/2009	WARS	HE	SW	20	30	R		O	A	2
	9/16/2009	WARS	H	N	14	31	R		O	A	26
	10/27/2009	WARS	E	N	10	30	R		O	A	<2
WL049.00	2/24/2009	WARS	E	N	4	30	R		O	A	<2
	4/20/2009	WARS	HE	N	8	29	R		O	A	<2
	6/8/2009	WARS	H	NW	15	30	R		O	A	10
	8/10/2009	WARS	HE	SW	21	30	R		O	A	<2
	9/16/2009	WARS	H	NW	14	31	R		O	A	4
	10/27/2009	WARS	E	N	10	29	R		O	A	2
WL051.00	2/24/2009	WARS	E	N	2	28	R		O	R	<2
	4/20/2009	WARS	HE	N	9	30	R		O	R	<2
	6/8/2009	WARS	H	NW	16	28	R		O	R	98
	8/10/2009	WARS	HE	SW	18	30	R		O	R	4
	9/16/2009	WARS	H	N	15	31	R		O	R	<2
	10/27/2009	WARS	E	N	9	27	R		O	R	8
WL052.00	2/24/2009	WARS	E	N	2	30	R		O	R	<2
	4/20/2009	WARS	HE	N	8	28	R		O	R	<2
	6/8/2009	WARS	H	NW	14	28	R		O	R	4
	8/10/2009	WARS	HE	SW	20	30	R		O	R	<2
	9/16/2009	WARS	H	NW	14	32	R		O	R	<2
	10/27/2009	WARS	E	N	10	30	R		O	R	1220
WL053.00	2/24/2009	WARS	E	N	2	29	R		O	A	<2
	4/20/2009	WARS	HE	N	7	28	R		O	A	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	6/8/2009	WARS	H	NW	16	28	R		O	A	6
	8/10/2009	WARS	HE	SW	21	30	R		O	A	<2
	9/16/2009	WARS	H	NW	14	32	R		O	A	2
	10/27/2009	WARS	E	N	10	30	R		O	A	<2
WL054.00	3/23/2009	MLP	HE	NW		25	R		O	A	<2
	4/20/2009	WARS	HE	N	7	31	R		O	A	<2
	6/8/2009	WARS	H	NW	17	30	R		O	A	15
	8/10/2009	WARS	HE	SW	21	30	R		O	A	2
	9/16/2009	WARS	H	N	14	31	R		O	A	2
	10/27/2009	WARS	E	N	10	30	R		O	A	<2
WL057.00	2/24/2009	WARS	E	N	4	30	R		O	A	<2
	4/20/2009	WARS	HE	N	8	28	R		O	A	<2
	6/8/2009	WARS	HE	NW	15	28	R		O	A	<2
	8/10/2009	WARS	HE	SW	25	30	R		O	A	<2
	9/16/2009	WARS	H	N	14	31	R		O	A	2
	10/27/2009	WARS	E	N	10	24	R		O	A	2
WL060.00	2/24/2009	WARS	E	N	3	30	R		O	A	<2
	4/20/2009	WARS	HE	N	6	28	R		O	A	<2
	6/8/2009	WARS	HE	NW	16	28	R		O	A	<2
	8/10/2009	WARS	HE	S	22	30	R		O	A	<2
	9/16/2009	WARS	H	NW	14	31	R		O	A	<2
	10/27/2009	WARS	E	N	10	30	R		O	A	<2
WL063.00	2/24/2009	WARS	E	N	5	30	R		O	A	<2
	4/20/2009	WARS	E	N	8	28	R		O	A	<2
	6/8/2009	WARS	HE	NW	17	28	R		O	A	<2
	8/10/2009	WARS	HE	S	22	30	R		O	A	<2
	9/16/2009	WARS	HE	NW		31	R		O	A	<2
	10/27/2009	WARS	E	N	11	31	R		O	A	<2
WL066.00	2/24/2009	WARS	E	N	2	12	R		O	A	<2
	4/20/2009	WARS	E	N	8	28	R		O	A	<2
	6/8/2009	WARS	HE	NW	16	28	R		O	A	<2
	8/10/2009	WARS	E	S	22	28	R		O	A	<2
	10/6/2009	AB	E	SW	13	30	R		O	A	3.6
	10/27/2009	WARS	E	N	10	30	R		O	A	2
WL068.00	3/23/2009	MLP	E	N		28	R		C	P	<2
	4/20/2009	WARS	E	N	8	29	R		C	P	<2
	6/8/2009	WARS	HE	NW	17	28	R		C	P	<2
	8/10/2009	WARS	E	S	22	28	R		C	P	<2
	10/6/2009	AB	E	SW	13	30	R		C	P	2
	10/27/2009	WARS	E	N	10	29	R		C	P	<2
WL070.00	3/11/2009	FP	HE	S	3	31	R	PW	O	A	2
	5/6/2009	DDO	HF	CL	9	29	R	P	O	A	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	6/3/2009	DDO	LE	SW	16	28	R		O	A	<2
	8/10/2009	DDO	E	S	21	29	R		O	A	2.8
	9/15/2009	DDO	E	NW	16	31	R		O	A	4.9
	10/27/2009	DDO	LE	CL	9	32	R		O	A	<2
WL071.00	3/11/2009	FP	HE	SW	3	31	R	P	O	A	<2
	5/6/2009	DDO	HF	CL	9	29	R	P	O	A	2
	6/3/2009	DDO	E	SW	16	28	R		O	A	<2
	8/10/2009	DDO	HE	S	21	30	R		O	A	5.5
	9/15/2009	DDO	E	NW	17	31	R		O	A	<2
	10/27/2009	DDO	LE	CL	10	31	R		O	A	<2
WL073.00	2/24/2009	DDO	E	NW	1	30	R		O	R	<2
	5/6/2009	DDO	HF	CL	9	28	R	PW	O	R	<2
	6/3/2009	DDO	E	SW	16	29	R		O	R	<2
	8/10/2009	DDO	HE	S	22	30	R		O	R	78
	9/15/2009	DDO	E	NW	18	31	R		O	R	10
	10/27/2009	DDO	LE	SE	9	31	R		O	R	<2
WL075.00	3/23/2009	MLP	E	CL		28	R		O	A	<2
	5/6/2009	DDO	HF	CL	9	30	R	P	O	A	<2
	6/3/2009	DDO	E	SW	15	30	R		O	A	<2
	8/10/2009	DDO	HE	S	23	30	R		O	A	<2
	9/15/2009	DDO	E	NW	17	30	R		O	A	2
	10/27/2009	DDO	E	SE	8	30	R		O	A	2
WL076.00	3/11/2009	FP	E	S	3	27	R	P	O	A	8
	5/6/2009	DDO	HF	CL	9	30	R	P	O	A	<2
	6/3/2009	DDO	E	SW	15	30	R		O	A	<2
	8/10/2009	DDO	HE	S	23	30	R		O	A	<2
	9/15/2009	DDO	E	NW	17	31	R		O	A	2
	10/27/2009	DDO	E	CL	10	32	R		O	A	<2
WL077.00	5/6/2009	DDO	H	CL	9	29	R	P	O	A	<2
	6/3/2009	DDO	E	SW	15	30	R		O	A	<2
	8/10/2009	DDO	HE	S	20	30	R		O	A	2
	9/15/2009	DDO	E	NW	16	30	R		O	A	<2
	10/27/2009	DDO	E	CL	9	29	R		O	A	8
WL079.00	2/24/2009	DDO	E	NW	3	32	R		O	A	<2
	5/6/2009	DDO	H	CL	10	28	R	P	O	A	<2
	6/3/2009	DDO	E	SW	14	30	R		O	A	<2
	8/10/2009	DDO	HE	S	19	28	R		O	A	<2
	9/15/2009	DDO	E	NW	16	30	R		O	A	<2
	10/27/2009	DDO	E	SE	10	32	R		O	A	<2
WL081.00	2/24/2009	DDO	E	NW	3	32	R		C	P	<2
	5/6/2009	DDO	H	CL	9	29	R	P	C	P	<2
	6/3/2009	DDO	E	SW	15	30	R		C	P	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	8/10/2009	DDO	HE	S	22	28	R		C	P	7.3
	9/15/2009	DDO	E	NW	17	30	R		C	P	3.6
	10/27/2009	DDO	E	CL	9	32	R		C	P	<2
WL085.00	2/24/2009	DDO	E	NW	2	27	R	W	C	P	<2
	5/6/2009	DDO	H	CL	10	29	R	P	C	P	2
	6/3/2009	DDO	E	SW	18	29	R		C	P	40
	8/10/2009	DDO	H	S	23	25	R		C	P	6
	9/15/2009	DDO	E	NW	18	30	R		C	P	7.3
	10/27/2009	DDO	E	NE	9	25	R		C	P	100
WL087.00	2/24/2009	DDO	E	W	3	32	R	W	O	R	<2
	5/6/2009	DDO	H	CL	9	28	R	P	O	R	<2
	6/3/2009	DDO	E	SW	14	29	R		O	R	<2
	8/10/2009	DDO	H	S	21	28	R		O	R	2
	9/15/2009	DDO	E	NW	17	30	R		O	R	<2
	10/27/2009	DDO	E	CL	8	32	R		O	R	<2
WL087.20	2/24/2009	DDO	E	W	2	31	R		O	R	<2
	5/6/2009	DDO	HE	CL	9	28	R	P	O	R	2
	6/3/2009	DDO	E	SW	14	29	R		O	R	5.5
	8/10/2009	DDO	H	S	21	28	R		O	R	<2
	9/15/2009	DDO	E	NW	16	30	R		O	R	4
	10/27/2009	DDO	E	CL	8	32	R		O	R	<2
WL089.00	2/24/2009	DDO	HE	W	1	31	R		C	P	<2
	5/6/2009	DDO	HE	CL	9	28	R	PW	C	P	<2
	6/3/2009	DDO	E	SW	14	29	R		C	P	2
	8/10/2009	DDO	H	SW	21	28	R		C	P	8
	9/15/2009	DDO	E	NW	16	30	R		C	P	<2
	10/27/2009	DDO	E	CL	8	32	R		C	P	<2
WL095.50	2/24/2009	DDO	HE	W	3	31	R		C	P	<2
	5/6/2009	DDO	HE	SW	8	28	R	PW	C	P	<2
	6/3/2009	DDO	E	SW	14	28	R		C	P	<2
	8/10/2009	DDO	H	S	20	27	R		C	P	<2
	9/15/2009	DDO	E	NW	16	31	R		C	P	<2
	10/27/2009	DDO	E	E	8	30	R		C	P	<2
WL096.00	1/13/2009	EXT	F	SW	-1	31	R		O	CA	<2
	2/24/2009	DDO	HE	W	-1	29	R	W	O	CA	<2
	5/6/2009	DDO	HE	SW	9	28	R	P	O	CA	<2
	6/3/2009	DDO	E	SW	14	28	R		O	CA	<2
	6/17/2009	AB	E	SE	14	15	R		O	CA	54
	8/10/2009	DDO	H	S	20	26	R		C	CA	2
	9/15/2009	DDO	E	NW	16	30	R		C	CA	15
	10/6/2009	AB	E	CL	13	19	E		O	CA	44
	10/27/2009	DDO	E	CL	8	28	R		O	CA	<2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	12/2/2009	EXT	H	SW	6	29	R		O	CA	<2
	12/16/2009	EXT	HF	W	4	27	R		O	CA	<2
WL097.00	2/24/2009	DDO	HE	W	3	32	R		O	A	<2
	5/6/2009	DDO	HE	SW	8	29	R	P	O	A	<2
	6/3/2009	DDO	E	W	14	29	R		O	A	<2
	8/10/2009	DDO	HF	S	20	27	R		O	A	<2
	9/15/2009	DDO	HE	NW	16	31	R		O	A	<2
	10/27/2009	DDO	E	CL	8	30	R		O	A	<2
WL098.00	2/24/2009	DDO	H	CL	1	28	R		C	P	<2
	5/6/2009	DDO	HE	CL	9	28	R	P	C	P	<2
	6/3/2009	DDO	HE	CL	14	28	R		C	P	8
	8/10/2009	DDO	HF	CL	21	27	R		C	P	24
	9/15/2009	DDO	HE	CL	16	30	R		C	P	100
	10/27/2009	DDO	E	CL	7	27	R		C	P	<2
WL099.00	2/24/2009	DDO	H	W	2	31	R		O	A	<2
	5/6/2009	DDO	E	CL	9	29	R	P	O	A	<2
	6/3/2009	DDO	HE	W	14	29	R		O	A	<2
	8/10/2009	DDO	HF	S	18	28	R		O	A	<2
	9/15/2009	DDO	HE	NW	17	31	R		O	A	<2
	10/27/2009	DDO	E	NE	8	30	R		O	A	<2
WL101.00	2/24/2009	DDO	H	W	-1	29	R		O	A	<2
	5/6/2009	DDO	E	SW	9	28	R	P	O	A	2
	6/3/2009	DDO	HE	W	14	28	R		O	A	<2
	8/10/2009	DDO	HF	SW	20	27	R		O	A	2
	9/15/2009	DDO	HE	CL	17	31	R		O	A	8
	10/27/2009	DDO	E	NE	8	30	R		O	A	<2
WL101.80	1/13/2009	EXT	F	SW	-2	32	R		O	A	<2
	2/24/2009	DDO	H	W	-1	29	R		O	A	<2
	3/11/2009	FP	E	S	3	29	R	P	O	A	56
	5/6/2009	DDO	E	SW	9	29	R	P	O	A	2
	6/3/2009	DDO	HE	W	14	29	R		O	A	<2
	8/10/2009	DDO	F	S	20	28	R		O	A	<2
	9/15/2009	DDO	HE	NW	16	30	R		O	A	14
	10/27/2009	DDO	E	NE	8	30	R		O	A	<2
	12/2/2009	EXT	H	CL	7	29	R		O	A	<2
	12/16/2009	EXT	HF	W	5	29	R		O	A	8
WL102.00	1/13/2009	EXT	F	SW	-2	32	R		O	CA	<2
	2/24/2009	DDO	H	W	-2	29	R	W	O	CA	<2
	3/11/2009	FP	E	S	2	30	R	PW	O	CA	2
	5/6/2009	DDO	E	SW	9	29	R	P	O	CA	<2
	6/3/2009	DDO	HE	W	14	28	R	W	C	CA	<2
	8/10/2009	DDO	F	S	19	28	R		C	CA	2

Station	Date	Collector	Tide	Wind	Temp	Salin	Strat	Adv	Status	Class	MFCOL
	9/15/2009	DDO	HE	NW	16	30	R		C	CA	24
	10/27/2009	DDO	E	NE	9	29	R		C	CA	<2
	12/2/2009	EXT	H	SW	7	30	R		O	CA	4
	12/16/2009	EXT	HF	W	5	28	R		O	CA	<2
WL103.00	2/24/2009	DDO	HF	W	1	32	R		O	A	<2
	5/6/2009	DDO	E	SW	9	28	R	P	O	A	<2
	6/3/2009	DDO	HE	W	12	28	R		O	A	2
	8/10/2009	DDO	F	S	19	26	R		O	A	10
	9/15/2009	DDO	H	NW	16	30	R		O	A	6
	10/27/2009	DDO	E	NE	9	30	R		O	A	<2

.