



**GROWING AREA WR – Johns Bay**  
**Bristol and South Bristol**

**Annual Review for 2007**

**Final Report Date: 09/05/08**

**Anna Bourakovsky**

**APPROVAL**

Division Director:

\_\_\_\_\_ Date: \_\_\_\_\_  
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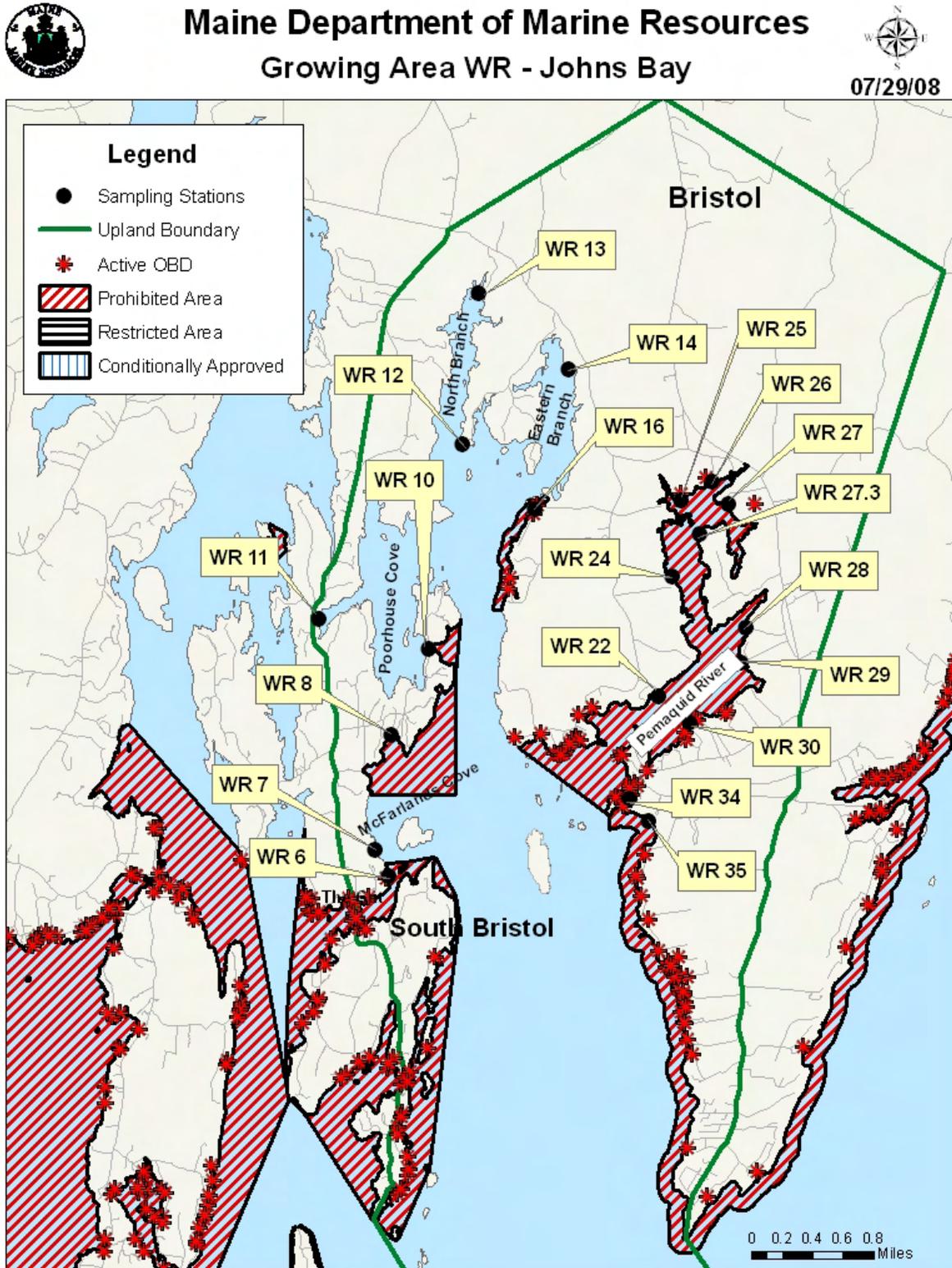
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Figure 1. Growing Area WR with Active Stations





## Executive Summary

This is an annual report for growing area WR-Johns Bay, written in compliance with the requirements of the 2005 Model Ordinance of the National Shellfish Sanitation program.

Growing area WR includes Johns Bay and Pemaquid River. Major sources of pollution in this area include private septic systems, licensed over board discharges (OBDs) and outhouses; there are no municipal waste water facilities in this area. Based on the results of the 2007 annual growing area review, all water quality stations classified as approved are meeting their appropriate NSSP classification standard. During the 2007 review year, no new stations were added and no stations were deactivated. Two OBDs were removed; one was located in the upper Pemaquid River and another in MacFarlands Cove. Based on the results of last year's sanitary survey report, six stations were reclassified from approved to prohibited on January 24, 2007, due to deteriorating water quality in the Pemaquid River. Two upward classification changes are being recommended, based on a remediation of a malfunctioning septic system and removal of two OBDs.

The last sanitary survey for growing area WR was written in 2006. The next triennial report will be written in 2009.

## Growing Area Description

Growing Area WR (Johns Bay) is located in Lincoln County, mid-coast Maine, approximately 60 miles north of Portland (Figure 1). The growing area lies between the Damariscotta River and Muscongus Bay, and includes coastal areas of the towns of Bristol and South Bristol. A complete boundary description for this growing area can be found in DMR central files.

The shoreline is typical of mid-coast Maine, with rockbound points and shoreline separating shallow coves and harbors. The muddy and gravel bottoms in these coves frequently provide excellent habitat for soft shell clams. Within Area WR, the coves most likely to support significant populations of soft shell clams include MacFarlands Cove, Poorhouse Cove, Bradstreet Cove, the North Branch, the Eastern Branch, the upper Pemaquid River, Coombs Cove and Fossetts Cove. Fresh water influence is minimal in this growing area, with no major river drainages, although small brooks and streams, many of which are intermittent, can be found throughout the growing area.

Based on the results of the 2000 Census, the town of Bristol had 1203 households and a year-round population of 2844. South Bristol had 410 households, with a year-round population of 897. The population of the towns has increased 6% and 2% respectively since 2000. Primary sources of employment in both towns are retail, construction, fishing, and manufacturing. The town of Bristol has 15 commercial shellfish license holders, while the town of South Bristol has 27 commercial shellfish licenses holders.

Land use in the study area is dominated by a mix of seasonal and year-round residential properties. Sections of dense shoreline development are punctuated by large tracts of undeveloped land. Seasonal properties are being converted to year-round use throughout the



area. Heaviest development is found near the Bristol Gut, along MacFarlands Cove, Bradstreet Cove, Soldiers Trail, Pemaquid Harbor and from Pemaquid Beach to Pemaquid Point. Rutherford Island and Pemaquid Point both have large summer populations with numerous groupings of old cottages on very small lots.

The northern side of the Bristol Gut is an area of heavy marine/fishing activity. It has several docks with lobster buying businesses, some of which offer support services for fishermen (fuel, bait, gear). Bristol Gut also houses a general store with a small lunch room. An inactive aquaculture lease site is located at the northern end of High Island. Pemaquid Harbor has a fisherman's co-op, two seasonal restaurants, a small boat building facility, and the historic site of Fort Pemaquid. A building supply company operates at the upper end of the Pemaquid River.

## Current Classifications

This growing area has areas classified as approved and prohibited.

**Approved:** 6 Stations

**Prohibited:** 13 stations, due to presence of OBD's and poor water quality

There is also 1 'New' station located in the prohibited Pemaquid River Area of growing area WR; the station has less than 30 data points and does not have a classification assigned to it.

Please visit the DMR website to view legal notices:

Area No. 24-A: Johns River and Pemaquid River (South Bristol and Bristol)

Area No. 24-B: John Bay (South Bristol and Bristol)

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

## Current Management Plan for Conditional Area

There are no conditionally managed areas in growing areas WR.

## Activity during Review Year (2007)

January 24, 2007; (Area No. 25-B); The Commissioner of the Maine Department of Marine Resources repeals DMR Regulations: 95.06 H, Closed Area No. 25-B, Pemaquid River, Bristol, promulgated on August 27, 1999; 95.06 I, Closed Area No. 25-C, New Harbor, Bristol, promulgated on May 5, 1999; 95.06 O, Closed Area No. 25-F, Pemaquid Neck, Bristol, promulgated on February 22, 1988; 95.06 R, Closed Area No. 25-G, Soldiers Cove, Bristol, promulgated on October 18, 1988; and replaces them with a new rule. This new rule administratively combines the areas previously described in Closed Areas No. 25-B, 25-C, part of 25-D, 25-F, and 25-G, and places them in this legal notice; and classifies the entire Pemaquid River as "Prohibited."



## Water Quality Review and Discussion

Table 1 lists all active stations in Growing Area WR, with their respective geomean and P90 calculations. Please refer to Appendix A 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. A more detailed explanation of this transition can be found in Appendix B. Based on the current review of water quality data, all approved stations are meeting their NSSP classification. Some prohibited stations are also meeting the approved standard, but will remain classified as prohibited due to their proximity to OBDs. Stations WR 8.0, currently classified as prohibited is meeting its approved standard. The last sanitary survey had identified a potential and actual pollution source in the vicinity of this station; both of these problems have since been remediated. Additionally, an OBD located on the shore of MacFarlands Cove was removed in October 2007. This area can be upgraded to approved classification. A second OBD, located near station WR 10 has been removed in August 2000. Station WR 10, located on the boundary of the prohibited area meets the approved standard with a P90 score of 10.2, and the closed area east of station WR 10 can be repealed.

**Table 1. Geomean and P90 Scores for Growing Area WR, 2002-2007**

STATION	CLASS	COUNT	MFCNT	GEO_MEAN	SDV	MAX	P90	APPD_STD	RESTR_STD
WR006.00	P	30	9	4	0.52	240	18.5	43	250
WR007.00	A	30	9	3.3	0.28	43	7.4	43	250
WR008.00	P	30	9	4.5	0.46	93	17.5	43	250
WR010.00	A	30	9	3.6	0.35	93	10.2	43	250
WR011.00	A	30	9	4.8	0.47	44	18.9	43	250
WR012.00	A	30	9	5.1	0.52	180	23.5	43	250
WR013.00	A	30	9	5.1	0.42	43	17.7	43	250
WR014.00	A	30	9	4.3	0.46	240	16.9	43	250
WR016.00	P	30	9	3.7	0.45	460	14.1	43	250
WR022.00	P	30	9	3.6	0.36	73	10.5	43	250
WR024.00	P	30	9	4.5	0.33	43	11.9	43	250
WR025.00	P	30	8	9	0.59	93	50.8	43	255
WR026.00	P	30	9	10.3	0.6	150	60.9	43	250
WR027.00	P	30	10	12.4	0.72	1100	103.4	42	245
WR027.30	New	12	9	5.3	0.54	93	26.7	35	190
WR028.00	P	30	9	7.1	0.73	460	59.8	43	250
WR029.00	P	30	9	7.3	0.6	500	42.6	43	250
WR030.00	P	30	9	4.5	0.38	43	14	43	250
WR034.00	P	30	9	5.3	0.55	1100	27	43	250
WR035.00	P	30	9	5.5	0.55	150	28.1	43	250



All stations active at the beginning of the year were sampled at least 6 times in 2007, following the systematic random sampling standard. Table 2 shows the number of random and adverse samples taken during the 2007 sampling year; Appendix C shows random data collected in 2007 for all active stations in growing area WR.

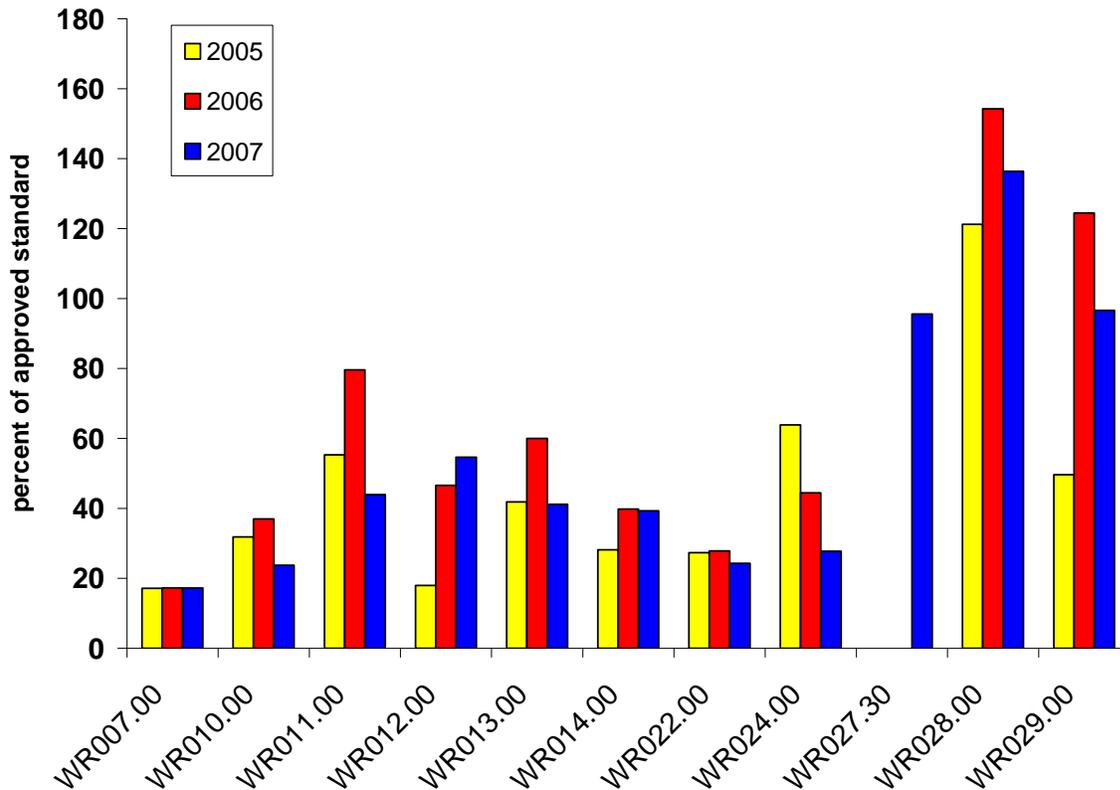
**Table 2. Sample collection count for 2007, Growing Area WR**

STATION	CLASS	COUNT			Comments
		Random (open)	Random (closed)	Adverse (Closed)	
WR006.00	P		6		
WR007.00	A	6			
WR008.00	P		6		
WR010.00	A	6			
WR011.00	A	6		7	Flood Station
WR012.00	A	6			
WR013.00	A	6			
WR014.00	A	6		6	Flood Station
WR016.00	P	6			
WR022.00	P	4	2	6	Reclassified from A to P; Flood Station
WR024.00	P	4	2		Reclassified from A to P
WR025.00	P	6			
WR026.00	P	6			
WR027.00	P	4	2		Reclassified from A to P
WR027.30	P	4	2		Reclassified from A to P
WR028.00	P	4	2		Reclassified from A to P
WR029.00	P	4	2		Reclassified from A to P
WR030.00	P		6		
WR034.00	P		6		
WR035.00	P		6		

Figure 2 shows the P90 trends over the past three years, for all stations classified as approved, as well as the prohibited stations located in the upper part of the Pemaquid River. 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 2007 column on or above the 100 percent line does not meet the standard for approved classification. With the exception of station WR 12, all stations showed a decrease in scores (improving water quality) over the past review year. Pollution sources which may be impacting these areas will be discussed in the next triennial report, after the completion of the shoreline survey field work



Figure 2. Area WR P90 Scores (expressed as the percent of the approved standard), 2005-2007



### Shoreline Survey Activity in 2007

Growing area WR has had no identified changes in pollution sources during the review period. Drive-through field observations were made during regularly scheduled random sampling runs throughout the review year. Much of the growing area WR has been re-surveyed in 2008 and will continue to be surveyed in fall 2008 and spring 2009. A comprehensive assessment of the survey's findings will be addressed in the next annual and triennial reports.

### Aquaculture/ Wet Storage Activity

There are 3 active aquaculture lease sites in area WR (two limited and one experimental). There are no wet storage sites or activities in area WR.

For more information on aquaculture leases, please visit the DMR website:



<http://www.maine.gov/dmr/aquaculture/leaseinventory/index.htm>

## **Classification Change Required**

Station WR 8.0 can be upgraded from prohibited to approved based on a confirmations that a malfunctioning septic system, located in the vicinity of this station has been repaired and an OBD has been removed; water quality at this station is currently meeting the approved standard, with a P90 score of 17.5. The prohibited area east of station WR 10 can be repealed, due to the removal of an OBD.

## **Summary**

Growing area WR continues to maintaining good water quality, and at the end of the 2007 review year, all stations were meeting their respective NSSP classification standards. As a result of this report, two areas are recommended for upward re-classifications, based on good water quality scores, remediation of a previously identified problems and removals of two OBDs.

Growing area WR will be extensively surveyed in 2008; data collected during the 2008 survey will be presented in the 2008 annual report. Pollution source data will be collected for and presented in the next Triennial review for growing area WR, to be written at the end of 2009.



## 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 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.

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 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 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. Water Quality Data for 2007

Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	MFCOL	WIND
WR006.00	2/20/2007	EXT	F	-2	32	R	-	C	P	<2.0	CL
WR006.00	4/10/2007	FP	LE	-2	30	R	-	C	P	<2.0	N
WR006.00	6/6/2007	JB	H	12	30	R	P	C	P	2	N
WR006.00	7/31/2007	EXT	F	19	30	R	-	C	P	<2.0	E
WR006.00	9/18/2007	MHE	L	11	32	R	-	C	P	<2.0	CL
WR006.00	12/5/2007	FP	E	4	31	R	-	C	P	<2.0	CL
WR007.00	2/20/2007	EXT	F	-2	32	R	-	O	A	2	CL
WR007.00	4/10/2007	FP	LE	-2	31	R	-	O	A	<2.0	N
WR007.00	6/6/2007	JB	HF	10	29	R	P	O	A	<2.0	NE
WR007.00	7/31/2007	EXT	F	19	30	R	-	O	A	<2.0	NE
WR007.00	9/18/2007	MHE	L	12	32	R	-	O	A	<2.0	CL
WR007.00	12/5/2007	FP	E	4	31	R	-	O	A	<2.0	CL
WR008.00	2/20/2007	EXT	F	-1	32	R	-	C	P	<2.0	CL
WR008.00	4/10/2007	FP	E	-2	31	R	-	C	P	<2.0	N
WR008.00	6/6/2007	JB	HF	10	30	R	P	C	P	<2.0	CL
WR008.00	7/31/2007	EXT	F	19	30	R	-	C	P	<2.0	E
WR008.00	9/18/2007	MHE	LF	13	32	R	-	C	P	<2.0	CL
WR008.00	12/5/2007	FP	E	7	31	R	-	C	P	2	S
WR010.00	2/20/2007	EXT	F	-3	32	R	-	O	A	2	CL
WR010.00	4/10/2007	FP	E	-2	30	R	-	O	A	6	N
WR010.00	6/6/2007	JB	HF	14	30	R	P	O	A	<2.0	NW
WR010.00	7/31/2007	EXT	F	19	30	R	-	O	A	<2.0	N
WR010.00	9/18/2007	MHE	LF	15	33	R	-	O	A	<2.0	CL
WR010.00	12/5/2007	FP	E	4	30	R	-	O	A	<2.0	CL
WR011.00	2/20/2007	EXT	F	-2	32	R	-	O	A	2	CL
WR011.00	4/10/2007	FP	E	-3	26	R	N	O	A	2	CL
WR011.00	6/6/2007	JB	HF	16	28	R	P	O	A	<2.0	CL
WR011.00	7/31/2007	EXT	F	19	30	R	-	O	A	28	CL
WR011.00	9/18/2007	MHE	F	15	32	R	-	O	A	2	CL
WR011.00	12/5/2007	FP	E	2	30	R	-	O	A	<2.0	CL
WR012.00	2/20/2007	EXT	F	-3	32	R	-	O	A	<2.0	CL
WR012.00	4/10/2007	FP	LE	-2	31	R	-	O	A	<2.0	N
WR012.00	6/6/2007	JB	F	12	28	R	P	O	A	8	N
WR012.00	7/31/2007	EXT	F	21	31	R	-	O	A	82	N
WR012.00	9/18/2007	MHE	LF	12	32	R	-	O	A	<2.0	SE
WR012.00	12/5/2007	FP	E	5	30	R	-	O	A	<2.0	CL
WR013.00	2/20/2007	EXT	F	-3	30	R	N	O	A	<2.0	CL



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	MFCOL	WIND
WR013.00	4/10/2007	FP	E	-1	26	R	N	O	A	<2.0	CL
WR013.00	6/6/2007	JB	HF	14	28	R	P	O	A	<2.0	NW
WR013.00	7/31/2007	EXT	F	21	30	R	-	O	A	29	N
WR013.00	9/18/2007	MHE	F	15	32	R	-	O	A	<2.0	SE
WR013.00	12/5/2007	FP	E	2	29	R	-	O	A	<2.0	CL
WR014.00	2/20/2007	EXT	F	-3	33	R	-	O	A	<2.0	CL
WR014.00	4/10/2007	FP	E	-3	30	R	W	O	A	<2.0	CL
WR014.00	6/6/2007	JB	F	14	28	R	P	O	A	<2.0	CL
WR014.00	7/31/2007	EXT	F	21	30	R	-	O	A	7.3	NE
WR014.00	9/18/2007	MHE	F	14	32	R	-	O	A	<2.0	CL
WR014.00	12/5/2007	FP	E	3	30	R	-	O	A	<2.0	CL
WR016.00	2/20/2007	EXT	F	-3	32	R	-	C	P	<2.0	CL
WR016.00	4/10/2007	FP	L	-2	28	R	-	C	P	<2.0	N
WR016.00	6/6/2007	JB	F	11	28	R	P	C	P	6	NW
WR016.00	7/31/2007	EXT	F	20	30	R	-	C	P	6	NE
WR016.00	9/18/2007	MHE	F	13	32	R	-	C	P	<2.0	SE
WR016.00	12/5/2007	FP	E	4	30	R	-	C	P	<2.0	SW
WR022.00	2/20/2007	EXT	HF	0	32	R	-	O	A	<2.0	CL
WR022.00	4/10/2007	FP	E	-2	14	R	-	O	A	8	N
WR022.00	6/6/2007	JB	F	9	28	R	P	O	A	2	CL
WR022.00	7/31/2007	EXT	F	15	30	R	-	O	A	2	CL
WR022.00	9/18/2007	MHE	F	12	31	R	-	C	P	2	SE
WR022.00	12/5/2007	FP	LE	3	22	R	-	C	P	<2.0	CL
WR024.00	2/20/2007	EXT	HF	-3	30	R	-	O	A	<2.0	CL
WR024.00	6/6/2007	JB	F	13	21	R	P	O	A	10	NW
WR024.00	6/25/2007	LL	E	15	18	R	-	O	A	4	CL
WR024.00	7/31/2007	EXT	HF	20	30	R	-	O	A	10	NE
WR024.00	9/18/2007	MHE	F	13	30	R	-	C	P	2	SE
WR024.00	12/5/2007	FP	E	2	14	R	-	C	P	6	CL
WR025.00	2/20/2007	EXT	HF	-3	18	R	-	C	P	<2.0	CL
WR025.00	4/10/2007	FP	E	-2	14	R	-	C	P	<2.0	N
WR025.00	6/6/2007	JB	F	13	15	R	P	C	P	50	W
WR025.00	7/31/2007	EXT	HF	21	29	R	-	C	P	26	N
WR025.00	9/18/2007	MHE	F	18	28	R	-	C	P	<2.0	SE
WR025.00	12/5/2007	FP	E	3	2	R	-	C	P	25	CL
WR026.00	2/20/2007	EXT	HF	-2	0	R	-	C	P	<2.0	CL
WR026.00	4/10/2007	FP	E	-2	11	R	N	C	P	<2.0	CL
WR026.00	6/6/2007	JB	F	15	5	R	P	C	P	74	SW
WR026.00	7/31/2007	EXT	HF	20	29	R	-	C	P	35	NE
WR026.00	9/18/2007	MHE	F	19	16	R	-	C	P	4	SE



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	MFCOL	WIND
WR026.00	12/5/2007	FP	E	3	10	R	-	C	P	12	CL
WR027.00	2/20/2007	EXT	H	-2	28	R	-	C	P	<2.0	CL
WR027.00	4/10/2007	FP	E	-3	4	R	-	C	P	14	CL
WR027.00	6/6/2007	JB	F	13	18	R	P	C	P	52	CL
WR027.00	7/31/2007	EXT	HF	20	29	R	-	C	P	20	NE
WR027.00	9/18/2007	MHE	F	15	32	R	-	C	P	<2.0	SE
WR027.00	12/5/2007	FP	E	4	21	R	-	C	P	<2.0	CL
WR027.30	2/20/2007	EXT	H	-2	6	R	-	O	A	<2.0	CL
WR027.30	4/10/2007	FP	E	-3	10	R	-	O	A	2	N
WR027.30	6/6/2007	JB	F	15	22	R	P	O	A	12	N
WR027.30	7/31/2007	EXT	HF	20	25	R	-	O	A	12	N
WR027.30	9/18/2007	MHE	F	12	32	R	-	C	P	<2.0	S
WR027.30	12/5/2007	FP	E	2	14	R	-	C	P	2	CL
WR028.00	2/20/2007	EXT	H	-3	30	R	-	O	A	<2.0	CL
WR028.00	4/10/2007	FP	E	-3	14	R	-	O	A	2	N
WR028.00	6/6/2007	JB	F	16	16	R	P	O	A	28	CL
WR028.00	7/31/2007	EXT	H	20	30	R	-	O	A	2	CL
WR028.00	9/18/2007	MHE	F	15	32	R	-	C	P	<2.0	SE
WR028.00	12/5/2007	FP	E	5	30	R	-	C	P	<2.0	CL
WR029.00	2/20/2007	EXT	H	-3	30	R	-	O	A	<2.0	CL
WR029.00	4/10/2007	FP	L	-2	16	R	-	O	A	<2.0	N
WR029.00	6/6/2007	JB	F	16	17	R	P	O	A	24	NW
WR029.00	7/31/2007	EXT	H	20	30	R	-	O	A	18	CL
WR029.00	9/18/2007	MHE	F	15	32	R	-	C	P	<2.0	S
WR029.00	12/5/2007	FP	LE	4	20	R	-	C	P	<2.0	CL
WR030.00	2/20/2007	EXT	HE	-2	32	R	-	C	P	<2.0	CL
WR030.00	4/10/2007	FP	L	-1	15	R	-	C	P	<2.0	N
WR030.00	6/6/2007	JB	F	12	25	R	P	C	P	38	NW
WR030.00	7/31/2007	EXT	H	16	30	R	-	C	P	<2.0	W
WR030.00	9/18/2007	MHE	F	12	33	R	-	C	P	2	CL
WR030.00	12/5/2007	FP	LE	5	28	R	-	C	P	2	CL
WR034.00	2/20/2007	EXT	HE	-1	33	R	-	C	P	<2.0	CL
WR034.00	4/10/2007	FP	L	-1	14	R	N	C	P	6	N
WR034.00	6/6/2007	JB	F	15	25	R	P	C	P	15	N
WR034.00	7/31/2007	EXT	H	20	30	R	-	C	P	4	CL
WR034.00	9/18/2007	MHE	F	12	33	R	-	C	P	<2.0	CL
WR034.00	12/5/2007	FP	L	6	30	R	-	C	P	2	CL
WR035.00	2/20/2007	EXT	HE	-1	33	R	-	C	P	<2.0	CL
WR035.00	4/10/2007	FP	L	-2	31	R	-	C	P	<2.0	N



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	MFCOL	WIND
WR035.00	6/6/2007	JB	F	10	26	R	P	C	P	8	CL
WR035.00	7/31/2007	EXT	H	20	30	R	-	C	P	6	W
WR035.00	9/18/2007	MHE	F	12	32	R	-	C	P	<2.0	SE
WR035.00	12/5/2007	FP	L	6	30	R	-	C	P	<2.0	CL