



GROWING AREA WZ
Islands of North Haven and Vinalhaven

Annual Review for the Year 2006

Fran Pierce
February 2007

APPROVAL

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Figure 1. Growing Area WZ

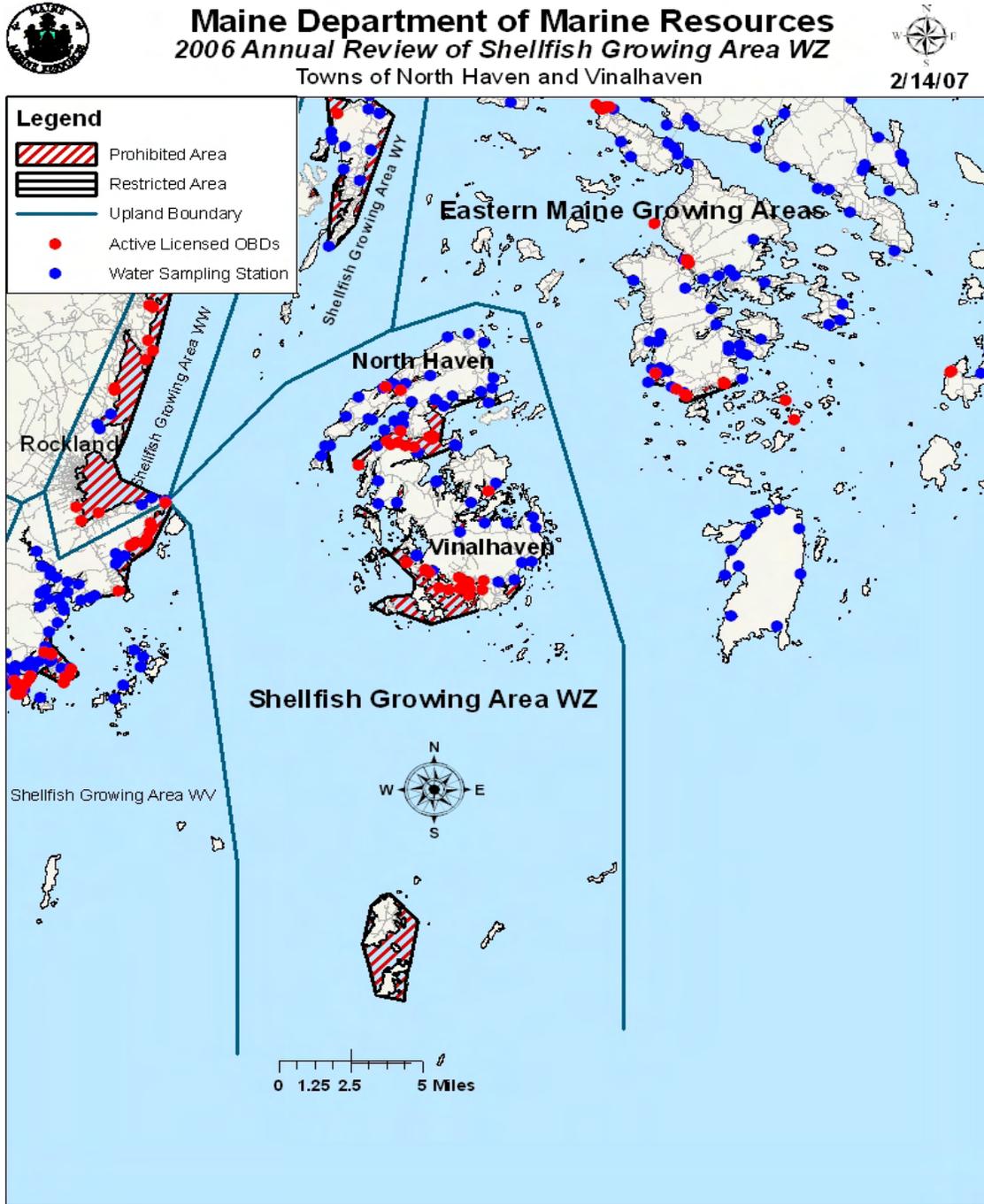




Figure 2. Growing Area WZ- Vinalhaven Island with Active Sampling Stations

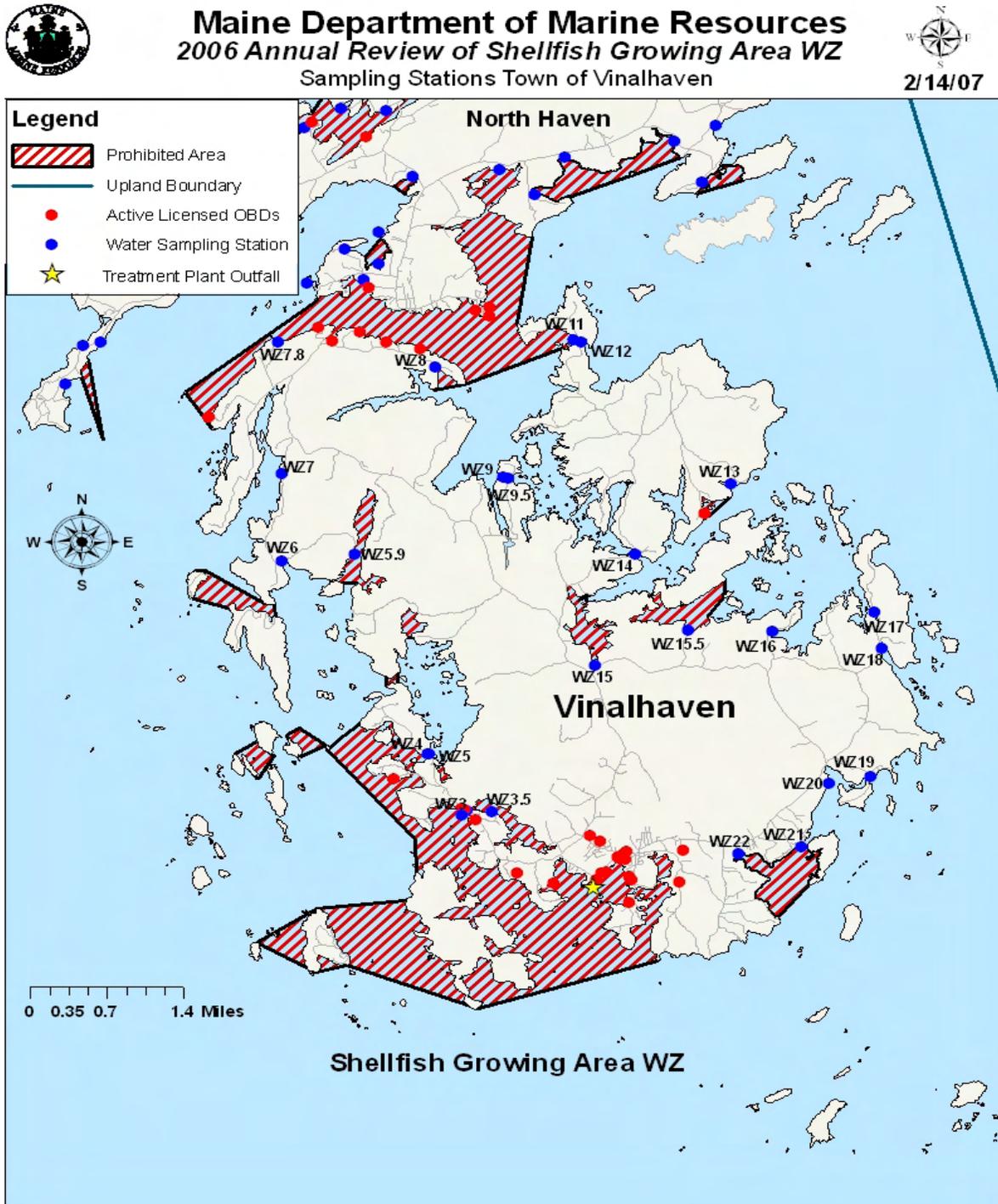
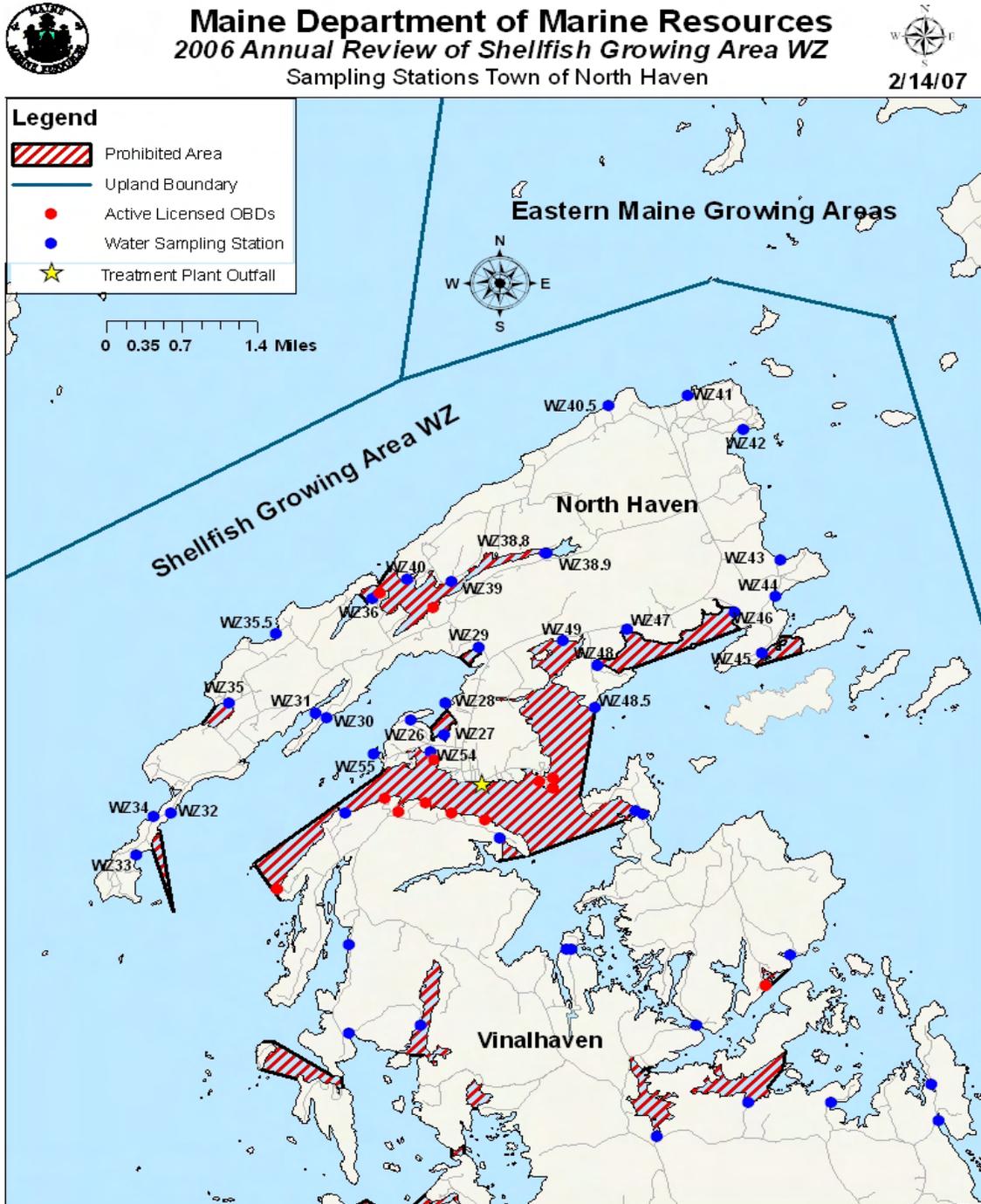


Figure 3. Growing Area WZ- North Haven Island with Active Sampling Stations





Executive Summary

This is an annual report for growing area WZ, written in compliance with the requirements of the NSSP Model Ordinance. During the 2006 sampling season, six stations located in area WZ received water quality scores that exceeded the approved standard and were required to be reclassified. At five of these stations, WZ 6, 7, 16, 17, and 31, there were no known point sources of pollution; these stations were downgraded from approved to restricted classification. The area around station WZ36 became part of the prohibited area in Pulpit Harbor, North Haven. Old Harbor Pond on Vinalhaven (sampling station WZ3.5) is meeting the restricted standard and can be reclassified from prohibited to restricted for shellfish harvest. This change in classification will allow oysters to be relayed from the restricted site to an approved site in The Basin. The western shore of Greens Island can be reclassified from prohibited to approved for shellfish harvest. A site visit and a discussion with the property owner confirmed that the camps located on the island are seasonally used and both camps utilize well maintained outhouses. In 2006, no stations were deactivated, and 1 new sampling station, WZ 48.5 was established to monitor the site of a closure line on North Haven.

The next triennial report for North Haven Island is due in 2009; the next sanitary survey for North Haven is due in 2015. The next triennial report for Vinalhaven Island is due in 2012; the next sanitary survey for Vinalhaven is due in 2010.

Growing Area Description

Shellfish growing area WZ covers the shoreline in the island towns of North Haven and Vinalhaven. This growing area also includes Matinicus Island and Ragged Island.

The islands of North Haven and Vinalhaven are located in the mouth of Penobscot Bay (Figure 1). Both islands contain year round populations that more than double during the summer months from June through August. Vinalhaven is the larger of the two islands (Figure 2). According to Vinalhaven's 2004 Comprehensive Plan the year round population is 1275 individuals. North Haven has a year round population of 380 and a summer population of 2000 (Figure 3). Both islands have municipal treatment facilities that serve their town centers. There are no large industries on either island. Most residents earn their living lobstering or caretaking the many seasonal dwellings on both islands. There are no marinas on either of the islands but there are areas that contain moorings which are utilized by both cruising boats and work boats. Vinalhaven also has several coves that are suitable for anchoring.

Vinalhaven has a new UV treatment Facility that serves 350 dwellings in and around the center of town in Carvers Harbor. The facility became operational in 2003. The facility has a Maine Pollutant Discharge Elimination System (MEPDES) permit and waste discharge license for the discharge of up to 129,000 gallons per day of secondary treated waste waters to the Atlantic Ocean, off Vinalhaven Maine. The outfall for this facility enters the harbor just south of the Maine State Ferry Terminal in Grimes Park. The outfall extends 250 feet out into the harbor, with three diffusers located along its length. The depth of the outfall at low tide is 25 feet. There is currently a closure zone of over 1000 acres around this outfall. The closest open area to the outfall is located west of Greens Island in an area of open ocean.



North Haven has a small municipal, primary treatment facility that serves a total of 200 hook ups in the center of town. This plant is designed for a flow of 40,000 gallons per day. The average daily flow is approximately 39,486 gpd and the average wet weather flow of 78,900 gpd. The outfall is located in the Thoughorfare in approximately 12 feet of water. In order to achieve a 1000:1 dilution around the treatment plant outfall, a 12.8 acre closure area is required; the current closure around the outfall is approximately 1000 acres.

Matinicus and Ragged Islands are permanently classified as prohibited for all shellfish harvesting. This is an administrative closure due to the islands being too far from shore for staff members to easily access and manage on a routine basis.

North Haven currently has six active licensed overboard discharges; Vinalhaven has twenty-six. All of these overboard discharges are located inside prohibited areas.

Area Z Boundary Description

Area Z lies inside a line extending from the east tip of Owls Head, southeast to G"3" Bell, then south to Green Island Seal Ledge, then south and offshore along the shellfish management zone line; AND a line extending from the east tip of Owls head, northeast to McIntosh Ledge, then northeast to Egg Rock Ledge, then northeast to Spoon Ledge, then southeast to Grass Ledge, then southeast to Saddleback Ledge, then south and offshore along the shellfish management zone line.

Current Classifications

Shellfish Growing Area WZ contains 28 approved and 16 prohibited shellfish classification; there are no conditional areas in this shellfish growing area. North Haven has 13 approved stations and 9 prohibited. Vinalhaven has 15 approved stations and 7 prohibited.

Visit the DMR website to view the current legal notices for shellfish growing area WZ:

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

Current Management Plan

Area WZ does not have any conditional areas.

Review of Water Quality

Transitioning to Membrane Filtration for Seawater and Pollution Source Samples

The Maine Department of Marine Resources has chosen to switch to a fecal coliform method that was approved for use in the National Shellfish Sanitation Program (NSSP) at the Interstate Shellfish Sanitation Conference in 2003. This method is the Membrane Filtration (MF) for fecal coliforms using mTEC agar with a two hour resuscitation step. The geometric mean and the



90th percentile are calculated on 30 data points extending over a five year period. During the transition from MPN to MF, we will be accumulating MF data points. The statistical calculations will be a combination of MPN and MF data points. The FDA has determined that the best way to handle the data is to perform the calculations as always for the data set, but to compare the data set to a hybrid weighted 90th percentile. This hybrid standard is calculated by weighting the relative contributions of each method to the database. This will mean that as the number of MPN data points reduce and the number of MF data points increase the 90th percentile standard that the sample site is compared to will change over time. Once all 30 data points are analyzed using MF, the 90th percentile for approved classification will be 31 and for restricted (for depuration) will be 163. The geomean approved standard of 14 fecal coliforms per 100 ml and geomean restricted standard of 88 fecal coliforms per 100 ml will remain the same for both methods.

Reports that display 90th percentiles will show the number of data points derived from MF analysis and will show the appropriate 90th percentile standard for that MPN/MF combination for approved and restricted classifications. It must be remembered that this weighted standard is only used for data sets encompassing data from the two different test methods, MF and MPN (3 tube/3 dilution). If decisions are to be made on a single test result analyzed by the MF method or a multiple number of test results all exclusively analyzed by the MF method, the 90th percentile standard is 31 fecal coliforms per 100 ml.

2006 was the first year the water quality program documented in the database the inability to collect a sample based on the following parameters: if the tide stage was too low to collect the sample, there was a safety issue with collecting the sample, the location was inaccessible and "other" which usually was accompanied by a comment on the data sheet. Stations that were unable to be sampled due to any of these parameters show 999 in the salinity column and have no data recorded in any of the columns but the time is recorded so the actual tide stage can be computed. Stations that were missed due to the above parameters were required to be made up to assure that each station would receive the required six samples during the sampling season.

Water Quality Data Review

Table 1 displays the geometric means and P90 data for the 30 most recent samples collected between 2002 and 2006 in area WZ. Please refer to Appendix A for header explanations. In 2006, all stations, except WZ 3 and 3.5 were sampled 6 times, following a systematic random sampling schedule (Appendix B). Sampling stations WZ3 and WZ3.5, which were new stations with less than 30 data points were sampled more than six times during the 2006 sampling season. This was done so that a P90 calculation could be done to determine if station WZ3.5 met restricted standards. An experimental oyster lease site is located in this area and the lease holder would like to have the area classified as restricted so he can relay his product to an approved site in The Basin.

Most approved stations met their appropriate NSSP classification standard. Six stations received water quality scores that exceeded the approved standard and require to be reclassified; these stations are highlighted in yellow in Table 1. At five of these stations, WZ 6, 7, 16, 17, and 31 there are no known point sources at pollution; these stations will be downgraded from approved to restricted classification. Station WZ36 will become part of the prohibited area in Pulpit Harbor.



Sampling station WZ 48.5 was established to monitor the site of a closure line. This station was sampled 5 times in 2006.

Table 1. Geomean and P90 scores for growing area WZ

STATION	CLASS	CNT	MFCNT	GM	SDV	MAX	P90	APPD_STD	RESTR_STD
WZ003.00	P	30	2	23.3	0.62	240	142.3	48	288
WZ003.50	New	28	2	13.2	0.61	240	79.6	47	287
WZ004.00	P	30	1	5.2	0.37	43	15.7	48	294
WZ005.00	A	30	1	5.7	0.62	1200	34.8	48	294
WZ005.90	P	30	1	11.2	0.76	1500	105.7	48	294
WZ006.00	A	30	1	13.5	0.51	93	60.8	48	294
WZ007.00	A	30	1	8.7	0.72	1100	71.9	48	294
WZ007.80	P	30	1	7.0	0.62	460	42.9	48	294
WZ008.00	P	30	1	8.9	0.62	460	55.0	48	294
WZ009.00	A	30	1	7.4	0.61	1100	44.3	48	294
WZ009.50	A	30	1	6.4	0.49	93	26.9	48	294
WZ011.00	P	30	2	6.9	0.54	93	33.6	48	288
WZ012.00	A	30	2	6.2	0.55	240	31.5	48	288
WZ013.00	A	30	2	3.9	0.25	20	8.2	48	288
WZ014.00	A	30	2	4.0	0.30	43	9.8	48	288
WZ015.00	New	16	1	7.5	0.46	43	29.6	48	289
WZ015.50	P	30	1	12.2	0.57	93	64.4	48	294
WZ016.00	A	30	2	8.3	0.63	240	52.6	48	288
WZ017.00	A	30	2	8.0	0.62	1100	50.1	48	288
WZ018.00	A	30	2	7.6	0.53	460	35.7	48	288
WZ019.00	A	30	2	4.0	0.36	93	11.6	48	288
WZ020.00	A	30	2	7.2	0.42	93	24.7	48	288
WZ021.00	P	30	2	6.2	0.44	93	22.7	48	288
WZ022.00	P	30	3	18.5	0.65	332	126.0	47	282
WZ026.00	A	30	2	7.9	0.56	160	41.8	48	288
WZ027.00	P	30	2	16.7	0.60	600	98.4	48	288
WZ028.00	A	30	2	5.1	0.54	1100	24.9	48	288
WZ029.00	P	30	2	13.7	0.78	500	138.4	48	288
WZ030.00	A	30	2	4.6	0.46	240	18.1	48	288
WZ031.00	A	30	2	8.3	0.65	480	55.7	48	288
WZ032.00	A	30	2	3.7	0.37	240	11.1	48	288
WZ033.00	A	30	2	4.9	0.51	240	22.1	48	288
WZ034.00	A	30	2	3.0	0.17	23	5.1	48	288
WZ035.00	P	30	2	4.0	0.46	460	15.6	48	288
WZ035.50	A	30	2	3.6	0.24	23	7.2	48	288
WZ036.00	A	30	2	9.6	0.66	1100	67.3	48	288
WZ038.80	P	30	1	13.6	0.62	240	84.0	48	294
WZ038.90	A	30	2	8.3	0.58	240	46.2	48	288
WZ039.00	New	29	2	4.9	0.29	23	11.3	47	288
WZ040.00	P	30	2	4.5	0.32	36	11.5	48	288
WZ040.50	A	30	2	4.0	0.41	240	13.6	48	288
WZ041.00	A	30	2	5.3	0.45	210	19.9	48	288



STATION	CLASS	CNT	MFCNT	GM	SDV	MAX	P90	APPD_STD	RESTR_STD
WZ042.00	A	30	2	4.8	0.50	134	21.0	48	288
WZ043.00	A	30	2	5.0	0.45	93	19.0	48	288
WZ044.00	A	30	2	6.8	0.62	240	42.4	48	288
WZ045.00	P	30	2	8.5	0.63	1200	55.2	48	288
WZ046.00	P	30	3	15.4	0.74	1100	137.9	47	282
WZ047.00	P	30	3	9.9	0.58	240	54.5	47	282
WZ048.00	P	30	3	14.7	0.71	460	118.8	47	282
WZ048.50	New	5	3	3.6	0.42	20	13.0	37	208
WZ049.00	P	30	3	13.4	0.74	1200	116.7	47	282
WZ054.00	P	30	3	15.9	0.80	1100	166.8	47	282
WZ055.00	A	30	2	4.2	0.39	210	13.0	48	288

Shoreline Survey Activity

The list of properties identified as having malfunctioning septic systems in the Sanitary Survey Report of North Haven (2003 and 2004 survey) were all revisited at least two times during the 2006 sampling season. These inspections were conducted to document whether or not a replacement system had been installed. The results of these survey inspections were reported to the local plumbing inspector and can be seen in the table below. Drive-through surveys were also conducted on both islands. No door to door survey inspections were conducted in 2006.

Table 2. Shoreline Survey results, 2006

Pollution Source#	Tax Map Page	Lot #	Description	Fixed? Y/N
PS1	6	5	malfunctioning system	N
PS2	11	5	malfunctioning system	N
PS3	31	21	malfunctioning system	N
PS4	20	4	malfunctioning system	Y
PS5	15	15	malfunctioning system	N
PS6	20	8	malfunctioning system	Y

Aquaculture and Wet Storage Activity

There are currently two lease sites in shellfish growing area WZ. The information for these lease sites is shown below:

PHSP NH

Original Date: 8/18/2003 **Effective Date:** 8/18/2003 **Expiration Date:** 8/17/2013

NOAA Chart: 13308

Description: Pulpit Harbor Salt Pond North Haven Knox County

Acreage: 16.59

Conditions:

Transfer/Renewal History:

Species Cultivated: oyster eastern / American (*Crassostrea virginica*)

Cultivation Technique(s): Bottom - Suspended

Campbell, Adam and Michele

Adam Campbell
Box 866, Middle Road
North Haven, ME 04853



207-867-4453 Fax:

Recreational fishing and boating activities shall be allowed on the open areas of the lease; all upweller rafts and/or other aquaculture gear shall be located within the boundaries of the applicant's experimental lease, CAMP PN; and the lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources regulations Chapter 2.80. The lease consists of the entire 16.59 acre salt pond, also known as Mill Pond or Hyti's Pond, bordered to the south by Middle Road and to the west by a dam, separating the pond from Pulpit Harbor. Formerly experimental lease CAMP PN. Chart and lease boundaries not to be used for legal purposes.

OHP VH

Original Date: 7/8/2003 **Effective Date:** 7/8/2003 **Expiration Date:** 7/7/2006

NOAA Chart: 13305

Description: Old Harbor Pond Vinalhaven Knox County

Acreage: 1.84

Conditions:

Transfer/Renewal History:

Species Cultivated: sea urchins green (*Strongylocentrotus droebachiensis*)

Standard Application

Pending: Section

6072-A(20).

Cultivation Technique(s): Suspended

Weller, David and Melissa Berry

David Weller and Melissa Berry

PO Box 646

Vinalhaven, ME 04863

207-863-2088 Fax:

Navigation is allowed on the open areas of the lease; all marking shall be in accordance with U.S. Coast Guard and Department of Marine Resources requirements; no floating gear is allowed in the eastern 100 feet of the lease area; only submerged gear that is a minimum of 3 feet below the surface at mean low water may be placed in the eastern 100 feet of the lease area. Chart and lease boundaries not to be used for legal purposes.

For more information on aquaculture lease sites, visit the DMR website:

<http://www.maine.gov/dmr/aquaculture/leaseinventory2006/penobscotbay.htm>

Required Classification Changes

Several areas need to be reclassified. Please refer to the Figures 4 and 5 for proposed reclassifications and closure lines.

Old Harbor Pond on Vinalhaven will be reclassified from prohibited to restricted for shellfish harvest. This change in classification will allow oysters to be relayed from the restricted site to an approved site in The Basin. This area was surveyed in 2004 by the Department of Environmental Protection and the DMR. No actual pollution sources were identified during this survey.



The western shore of Greens Island should be reclassified from prohibited to approved for shellfish harvest. On the western shore of Greens Island there are two small camps. When the islands in this area were visited, these small camps were not able to be inspected. It was not known if these camps were ever used and if so what they utilized for waste management. A discussion with the property owner confirmed that the camps are seasonally used and both camps utilize outhouses. The outhouses are both located in wooded areas well away from the shore (Appendix C). One of the outhouses is located 130 feet from mean high tide, and the second outhouse is situated 100 feet from the mean high tide mark and is completely contained within an old foundation of a building built in the 1800's. There are no other dwellings on this side of Greens Island.

Six stations received water quality scores that exceeded the approved standard and were required to be reclassified. At five of these stations, WZ 6, 7, 16, 17, and 31, there are no known point sources of pollution; these stations will be downgraded from approved to restricted classification. Station WZ36 will become part of the closed prohibited area in Pulpit Harbor, North Haven.

Sampling station WZ 48.5 was established to monitor the site of a closure line on North Haven. This station was sampled 5 times in 2006.

Discussion and Summary

The islands of North Haven and Vinalhaven will continue to be sampled randomly in 2007. Additional sampling sites may be needed to be established to better monitor the shellfish closure lines. If this is necessary, each island's run will need to be split into two runs because of the limited time available to collect the samples due to the ferry schedules.

Five sites on Vinalhaven have water quality scores that meet approved standards but are classified prohibited. These stations are WZ4, WZ7.8, WZ11, WZ 15 AND WZ21. These sites will not be reclassified at this time, and this area will receive a new shoreline survey in 2008 or 2009. Once the survey is completed, and upward classification will be considered.

The aquaculture lease holder at Old Harbor Pond has requested that the pond be re-surveyed to determine if there have been any pollution changes in the area that would allow it to be reclassified to approved for shellfish harvest. This survey will be conducted in 2008. Additionally, a new sampling station, WZ 3.7, will be established to monitor the water quality at this lease site.



Figure 4. Proposed Classification Changes- North Haven growing area WZ

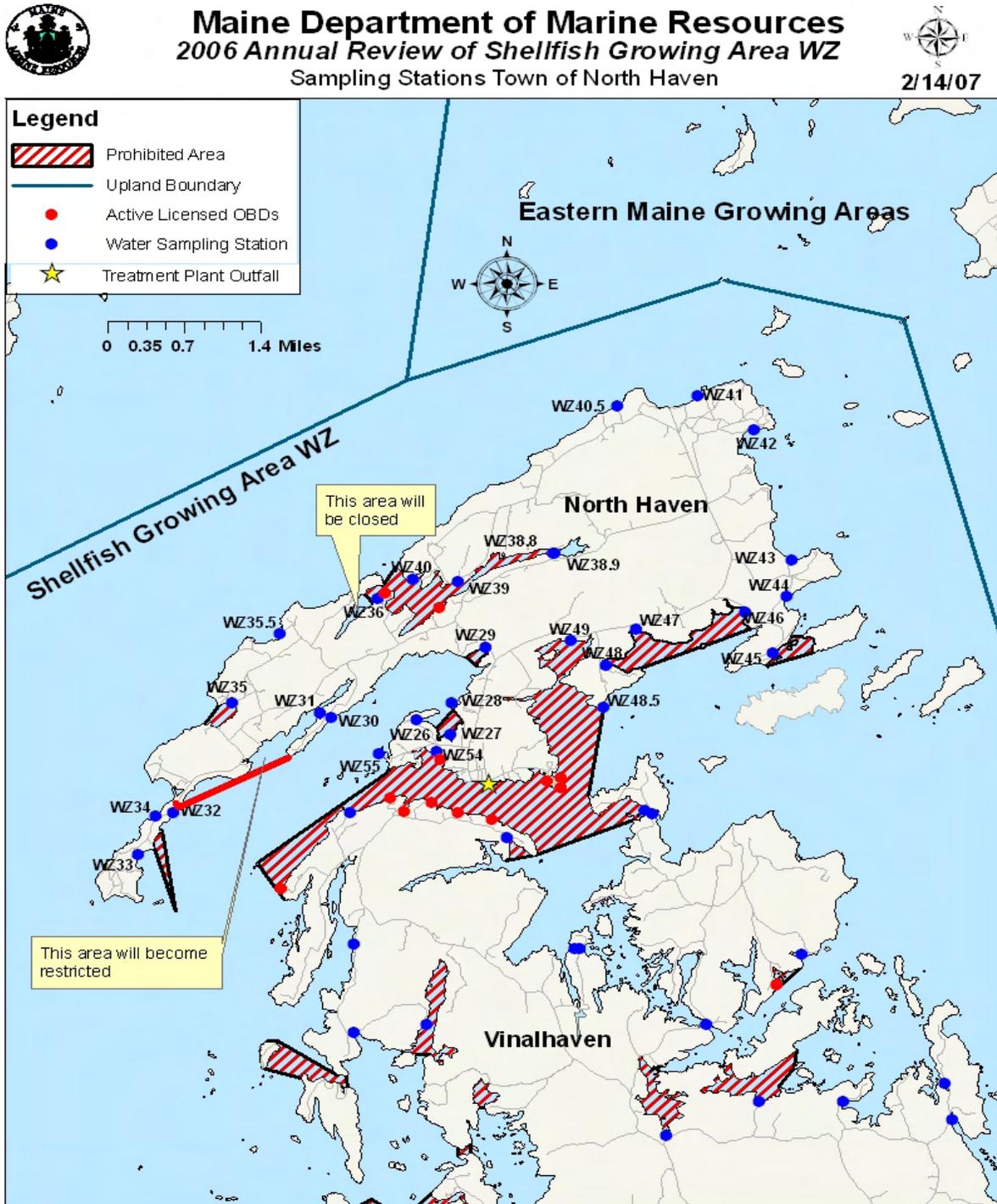
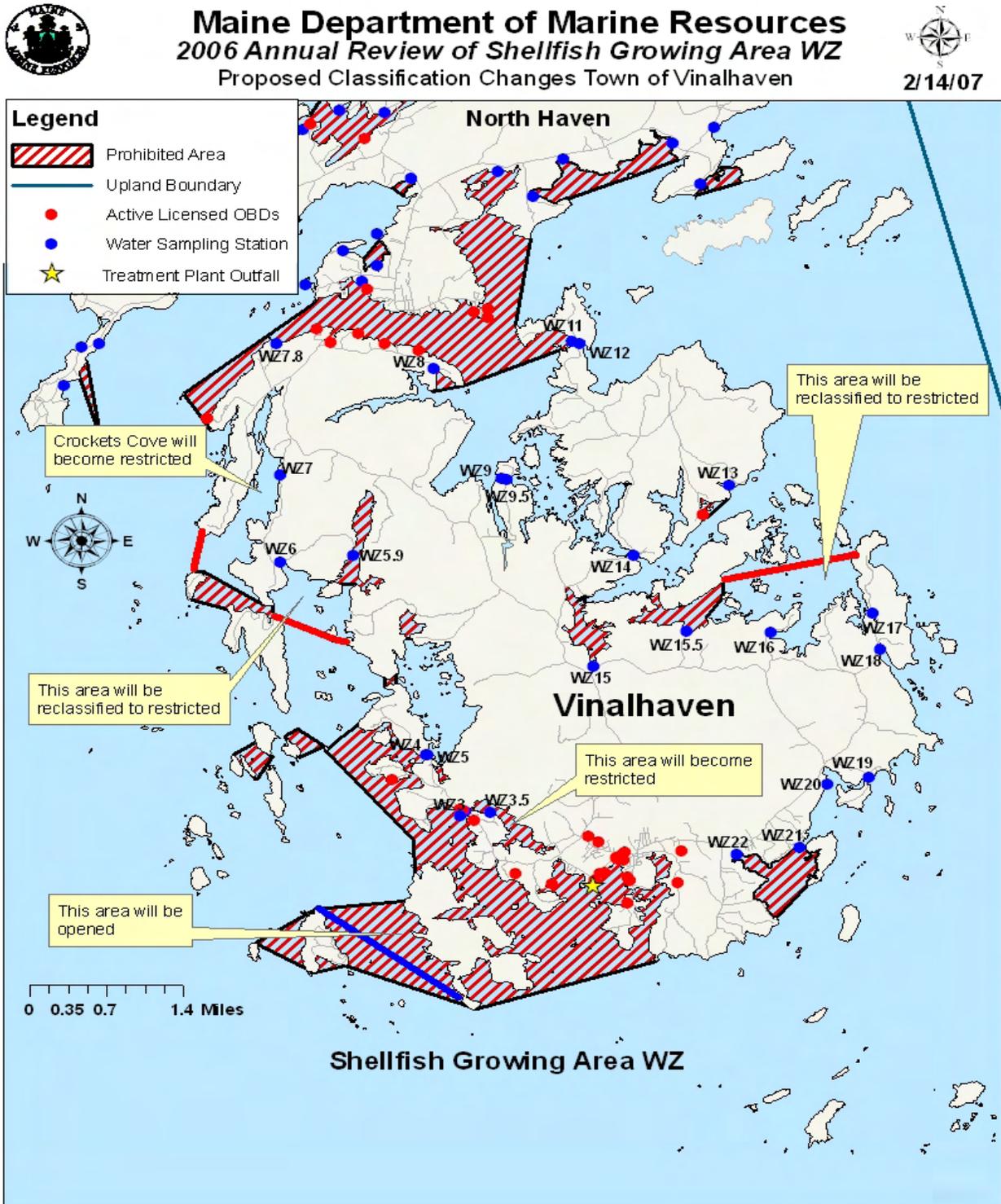




Figure 5. Proposed Classification Changes- Vinalhaven, Growing Area WZ





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. Data Collected in 2006

Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	A1COL	MFCOL	WIND
WZ003.00	04/24/06	FP	E	10	31	R	-	C	P	<3.0	-	E
WZ003.00	05/30/06	LL	F	17	15	R	-	C	P	15	-	S
WZ003.00	06/27/06	FP	F	18	14	R	P	C	P	75	-	SW
WZ003.00	07/26/06	FP	F	11	5	R	P	C	P	43	-	SW
WZ003.00	08/08/06	FP	H	10	30	R	-	C	P	3.6	-	N
WZ003.00	08/15/06	SXR	L	21	15	R	P	C	P	43	-	CL
WZ003.00	09/13/06	JB	LF	12	22	R	-	C	P	-	44	NW
WZ003.00	10/04/06	JXK	E	16	32	R	-	C	P	-	200	E
WZ003.50	04/24/06	FP	E	12	14	R	-	C	P	<3.0	-	E
WZ003.50	05/30/06	LL	F	18	10	R	-	C	P	3.6	-	S
WZ003.50	06/27/06	FP	F	20	8	R	P	C	P	240	-	NE
WZ003.50	07/26/06	FP	F	14	2	R	PN	C	P	93	-	SW
WZ003.50	08/08/06	FP	H	16	10	R	-	C	P	3.6	-	N
WZ003.50	08/15/06	SXR	L	23	16	R	P	C	P	43	-	SW
WZ003.50	09/13/06	JB	L	12	21	R	-	C	P	-	27	NW
WZ003.50	10/04/06	JXK	E	17	24	R	-	C	P	-	<2.0	E
WZ004.00	04/24/06	FP	E	10	31	R	-	C	P	3.6	-	E
WZ004.00	05/30/06	LL	F	14	30	R	-	C	P	<3.0	-	S
WZ004.00	06/27/06	FP	F	18	30	R	P	C	P	7.3	-	S
WZ004.00	07/26/06	FP	F	8	30	R	P	C	P	7.3	-	SW
WZ004.00	08/15/06	SXR	L	18	30	R	P	C	P	3.6	-	CL
WZ004.00	09/13/06	JB	LF	12	32	R	-	C	P	-	<2.0	CL
WZ005.00	04/24/06	FP	E	10	32	R	-	O	A	<3.0	-	E
WZ005.00	05/30/06	LL	F	14	30	R	-	O	A	<3.0	-	S
WZ005.00	06/27/06	FP	F	17	30	R	P	O	A	3.6	-	S
WZ005.00	07/26/06	FP	F	8	30	R	P	O	A	3	-	SW
WZ005.00	08/15/06	SXR	L	18	31	R	P	O	A	3.6	-	CL
WZ005.00	09/13/06	JB	LF	12	32	R	-	O	A	-	<2.0	CL
WZ005.90	05/30/06	LL	F	14	30	R	-	O	A	<3.0	-	S
WZ005.90	06/27/06	FP	F	17	28	R	P	O	A	43	-	SW
WZ005.90	07/26/06	FP	F	10	28	R	PB	O	A	23	-	SW
WZ005.90	08/08/06	FP	H	9	30	R	-	O	A	9.1	-	N
WZ005.90	08/15/06	SXR	LF	19	31	R	P	O	A	93	-	CL
WZ005.90	10/04/06	JXK	E	17	32	R	-	O	A	-	1500	E
WZ006.00	04/24/06	FP	E	10	26	R	N	O	A	93	-	E
WZ006.00	05/30/06	LL	F	14	30	R	-	O	A	23	-	S
WZ006.00	06/27/06	FP	F	18	16	R	PN	O	A	93	-	SE
WZ006.00	07/26/06	FP	F	10	25	R	PN	O	A	93	-	SW
WZ006.00	08/15/06	SXR	LF	20	30	R	PN	O	A	43	-	CL
WZ006.00	09/13/06	JB	LF	14	32	R	-	O	A	-	<2.0	NW
WZ007.00	04/24/06	FP	E	10	31	R	-	C	P	<3.0	-	CL
WZ007.00	05/30/06	LL	F	14	30	R	-	C	P	<3.0	-	S
WZ007.00	06/27/06	FP	F	18	28	R	P	C	P	23	-	S
WZ007.00	07/26/06	FP	F	10	28	R	P	C	P	93	-	SW



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	A1COL	MFCOL	WIND
WZ007.00	08/15/06	SXR	LF	19	31	R	P	C	P	1100	-	CL
WZ007.00	09/13/06	JB	LF	11	31	R	-	C	P	-	2	NW
WZ007.80	04/24/06	FP	E	10	31	R	-	O	A	<3.0	-	E
WZ007.80	05/30/06	LL	F	14	30	R	-	O	A	15	-	S
WZ007.80	06/27/06	FP	F	18	30	R	P	O	A	<3.0	-	N
WZ007.80	07/26/06	FP	F	10	28	R	P	O	A	<3.0	-	SW
WZ007.80	08/15/06	SXR	F	19	30	R	P	O	A	<3.0	-	CL
WZ007.80	09/13/06	JB	LF	15	32	R	-	O	A	-	<2.0	CL
WZ008.00	04/24/06	FP	E	10	30	R	N	C	P	<3.0	-	CL
WZ008.00	05/30/06	LL	F	14	30	R	-	C	P	9.1	-	S
WZ008.00	06/27/06	FP	HF	20	20	R	P	C	P	240	-	SE
WZ008.00	07/26/06	FP	F	10	28	R	PN	C	P	23	-	CL
WZ008.00	08/15/06	SXR	F	21	30	R	PB	C	P	9.1	-	CL
WZ008.00	09/13/06	JB	F	16	32	R	-	C	P	-	2	NW
WZ009.00	04/24/06	FP	E	10	29	R	-	O	A	<3.0	-	CL
WZ009.00	05/30/06	LL	F	16	30	R	-	O	A	<3.0	-	S
WZ009.00	06/27/06	FP	HF	19	28	R	P	O	A	9.1	-	CL
WZ009.00	07/26/06	FP	F	10	28	R	P	O	A	<3.0	-	CL
WZ009.00	08/15/06	SXR	F	20	30	R	P	O	A	9.1	-	CL
WZ009.00	09/13/06	JB	F	15	31	R	-	O	A	-	2	CL
WZ009.50	04/24/06	FP	E	10	28	R	-	O	A	<3.0	-	E
WZ009.50	05/30/06	LL	F	14	30	R	-	O	A	9.1	-	S
WZ009.50	06/27/06	FP	HF	19	30	R	P	O	A	9.1	-	CL
WZ009.50	07/26/06	FP	F	10	28	R	PN	O	A	3.6	-	CL
WZ009.50	08/15/06	SXR	F	20	30	R	P	O	A	9.1	-	CL
WZ009.50	09/13/06	JB	F	12	31	R	-	O	A	-	<2.0	CL
WZ011.00	04/24/06	FP	E	10	30	R	-	C	P	<3.0	-	E
WZ011.00	06/27/06	FP	H	20	28	R	P	C	P	23	-	W
WZ011.00	07/26/06	FP	F	12	28	R	PN	C	P	93	-	CL
WZ011.00	08/15/06	SXR	F	22	29	R	P	C	P	93	-	CL
WZ011.00	09/13/06	JB	F	17	31	R	-	C	P	-	<2.0	W
WZ011.00	10/04/06	JXK	E	17	30	R	-	C	P	-	7.3	CL
WZ012.00	04/24/06	FP	E	10	22	R	N	O	A	240	-	E
WZ012.00	06/27/06	FP	H	18	28	R	P	O	A	9.1	-	SE
WZ012.00	07/26/06	FP	F	11	28	R	PN	O	A	<3.0	-	CL
WZ012.00	08/15/06	SXR	F	19	30	R	P	O	A	<3.0	-	CL
WZ012.00	09/13/06	JB	F	12	31	R	-	O	A	-	2	CL
WZ012.00	10/04/06	JXK	E	18	26	R	-	O	A	-	140	S
WZ013.00	04/24/06	FP	E	9	31	R	-	O	A	<3.0	-	E
WZ013.00	06/27/06	FP	H	14	30	R	P	O	A	3.6	-	E
WZ013.00	07/26/06	FP	F	8	29	R	P	O	A	<3.0	-	CL
WZ013.00	08/15/06	SXR	F	17	30	R	P	O	A	3.6	-	CL
WZ013.00	09/13/06	JB	F	11	32	R	-	O	A	-	<2.0	CL
WZ013.00	10/04/06	JXK	E	16	32	R	-	O	A	-	20	SE
WZ014.00	04/24/06	FP	E	10	30	R	-	O	A	3.6	-	E
WZ014.00	06/27/06	FP	H	20	30	R	P	O	A	<3.0	-	E
WZ014.00	07/26/06	FP	F	10	29	R	P	O	A	<3.0	-	CL



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	A1COL	MFCOL	WIND
WZ014.00	08/15/06	SXR	F	20	30	R	P	O	A	3.6	-	CL
WZ014.00	09/13/06	JB	F	15	32	R	-	O	A	-	2	CL
WZ014.00	10/04/06	JXK	E	17	32	R	-	O	A	-	4	SE
WZ015.00	04/24/06	FP	E	10	30	R	N	C	P	7.3	-	CL
WZ015.00	05/30/06	LL	F	17	30	R	-	C	P	23	-	S
WZ015.00	06/27/06	FP	H	19	28	R	P	C	P	3.6	-	E
WZ015.00	07/26/06	FP	HF	10	26	R	P	C	P	15	-	CL
WZ015.00	08/15/06	SXR	F	21	30	R	P	C	P	3.6	-	CL
WZ015.00	09/13/06	JB	F	14	31	R	-	C	P	-	2	CL
WZ015.50	04/24/06	FP	E	10	26	R	NW	O	A	<3.0	-	CL
WZ015.50	05/30/06	LL	HF	14	20	R	-	O	A	15	-	S
WZ015.50	06/27/06	FP	HE	19	28	R	P	O	A	9.1	-	CL
WZ015.50	07/26/06	FP	HF	9	24	R	PN	O	A	9.1	-	CL
WZ015.50	08/15/06	SXR	F	19	30	R	PN	O	A	<3.0	-	CL
WZ015.50	09/13/06	JB	F	11	30	R	-	O	A	-	2	CL
WZ016.00	06/27/06	FP	HE	19	30	R	P	O	A	<3.0	-	CL
WZ016.00	07/26/06	FP	HF	9	30	R	PN	O	A	3.6	-	S
WZ016.00	08/08/06	FP	HE	10	30	R	-	O	A	15	-	N
WZ016.00	08/15/06	SXR	F	20	30	R	PN	O	A	3.6	-	CL
WZ016.00	09/13/06	JB	F	15	31	R	-	O	A	-	2	CL
WZ016.00	10/24/06	JXK	F	11	24	R	-	O	A	-	88	CL
WZ017.00	05/30/06	LL	HF	15	30	R	-	O	A	<3.0	-	S
WZ017.00	06/27/06	FP	HE	17	30	R	P	O	A	<3.0	-	SE
WZ017.00	07/26/06	FP	HF	9	30	R	P	O	A	3.6	-	CL
WZ017.00	08/08/06	FP	HE	9	30	R	-	O	A	1100	-	N
WZ017.00	09/13/06	JB	F	11	32	R	-	O	A	-	<2.0	W
WZ017.00	10/04/06	JXK	E	17	31	R	-	O	A	-	2	SW
WZ018.00	05/30/06	LL	HF	14	30	R	-	O	A	<3.0	-	S
WZ018.00	06/27/06	FP	HE	20	15	R	P	O	A	9.1	-	S
WZ018.00	07/26/06	FP	HF	13	22	R	PN	O	A	9.1	-	S
WZ018.00	08/08/06	FP	HE	8	32	R	-	O	A	<3.0	-	N
WZ018.00	09/13/06	JB	F	15	32	R	-	O	A	-	<2.0	CL
WZ018.00	10/24/06	JXK	F	12	31	R	-	O	A	-	29	N
WZ019.00	04/24/06	FP	LE	10	31	R	-	O	A	<3.0	-	E
WZ019.00	05/30/06	LL	HF	14	30	R	-	O	A	<3.0	-	S
WZ019.00	06/27/06	FP	HE	18	30	R	P	O	A	<3.0	-	S
WZ019.00	07/26/06	FP	HF	9	30	R	P	O	A	<3.0	-	SW
WZ019.00	09/13/06	JB	F	14	32	R	-	O	A	-	22	CL
WZ019.00	10/04/06	JXK	E	18	32	R	-	O	A	-	<2.0	S
WZ020.00	04/24/06	FP	LE	9	30	R	-	O	A	3	-	CL
WZ020.00	05/30/06	LL	HF	16	30	R	-	O	A	<3.0	-	S
WZ020.00	07/26/06	FP	HF	9	30	R	P	O	A	9.1	-	SW
WZ020.00	08/08/06	FP	HE	9	31	R	-	O	A	15	-	N
WZ020.00	09/13/06	JB	F	14	32	R	-	O	A	-	4	CL
WZ020.00	10/04/06	JXK	LE	16	32	R	-	O	A	-	14	SW
WZ021.00	04/24/06	FP	LE	10	32	R	-	C	P	<3.0	-	CL
WZ021.00	05/30/06	LL	H	15	30	R	-	C	P	3.6	-	S



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	A1COL	MFCOL	WIND
WZ021.00	07/26/06	FP	H	8	30	R	P	C	P	23	-	SW
WZ021.00	08/08/06	FP	HE	9	31	R	-	C	P	<3.0	-	N
WZ021.00	09/13/06	JB	F	10	32	R	-	C	P	-	5.5	CL
WZ021.00	10/04/06	JXK	LE	16	32	R	-	C	P	-	12	SW
WZ022.00	05/30/06	LL	H	16	26	R	-	C	P	9.1	-	S
WZ022.00	07/26/06	FP	H	10	30	R	PN	C	P	80	-	SW
WZ022.00	08/08/06	FP	E	9	30	R	N	C	P	23	-	N
WZ022.00	10/04/06	JXK	LE	17	22	R	-	C	P	-	56	SE
WZ022.00	10/24/06	JXK	F	12	4	R	-	C	P	-	90	N
WZ022.00	11/27/06	FP	LF	5	30	R	N	C	P	-	<2.0	CL
WZ026.00	05/30/06	JB	F	13	29	R	-	O	A	<3.0	-	E
WZ026.00	07/26/06	JXK	F	20	30	R	-	O	A	23	-	CL
WZ026.00	08/09/06	FP	H	13	30	R	N	O	A	3	-	CL
WZ026.00	08/15/06	FP	F	10	31	R	PN	O	A	<3.0	-	S
WZ026.00	09/20/06	JXK	H	18	30	R	-	O	A	-	160	CL
WZ026.00	10/04/06	FP	E	13	30	R	N	O	A	-	2	CL
WZ027.00	05/30/06	JB	F	15	29	R	-	C	P	3.6	-	E
WZ027.00	07/26/06	JXK	F	19	30	R	-	C	P	23	-	CL
WZ027.00	08/09/06	FP	H	11	30	R	N	C	P	23	-	CL
WZ027.00	08/15/06	FP	F	10	31	R	PN	C	P	23	-	S
WZ027.00	09/20/06	JXK	HE	18	28	R	-	C	P	-	600	NW
WZ027.00	10/04/06	FP	E	12	30	R	NW	C	P	-	4	CL
WZ028.00	05/30/06	JB	F	12	30	R	-	O	A	7.3	-	E
WZ028.00	06/27/06	LL	E	16	30	R	-	O	A	<3.0	-	SW
WZ028.00	07/26/06	JXK	HF	18	30	R	-	O	A	<3.0	-	SW
WZ028.00	08/15/06	FP	LF	9	31	R	P	O	A	43	-	S
WZ028.00	09/20/06	JXK	HE	19	30	R	-	O	A	-	18	NW
WZ028.00	10/04/06	FP	L	13	32	R	-	O	A	-	6	CL
WZ029.00	05/30/06	JB	F	15	29	R	-	C	P	<3.0	-	CL
WZ029.00	06/27/06	LL	F	18	25	R	-	C	P	43	-	SW
WZ029.00	07/26/06	JXK	HF	22	21	R	-	C	P	240	-	SW
WZ029.00	08/15/06	FP	F	11	30	R	PN	C	P	23	-	S
WZ029.00	09/20/06	JXK	HE	20	30	R	-	C	P	-	500	CL
WZ029.00	10/04/06	FP	E	15	32	R	N	C	P	-	<2.0	CL
WZ030.00	05/30/06	JB	F	15	30	R	-	O	A	<3.0	-	E
WZ030.00	06/27/06	LL	HF	15	28	R	-	O	A	3.6	-	SW
WZ030.00	07/26/06	JXK	HF	18	28	R	-	O	A	29	-	SW
WZ030.00	08/15/06	FP	LF	8	31	R	P	O	A	<3.0	-	S
WZ030.00	09/20/06	JXK	HE	19	30	R	-	O	A	-	16	CL
WZ030.00	10/04/06	FP	E	15	30	R	-	O	A	-	<2.0	SW
WZ031.00	05/30/06	JB	F	15	30	R	-	O	A	460	-	CL
WZ031.00	06/27/06	LL	HF	15	28	R	-	O	A	23	-	SW
WZ031.00	07/26/06	JXK	HF	19	28	R	-	O	A	23	-	SW
WZ031.00	08/15/06	FP	F	9	31	R	P	O	A	<3.0	-	S
WZ031.00	09/20/06	JXK	HE	18	28	R	-	O	A	-	480	CL
WZ031.00	10/04/06	FP	E	14	30	R	-	O	A	-	<2.0	CL
WZ032.00	05/30/06	JB	F	12	30	R	-	O	A	<3.0	-	E



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	A1COL	MFCOL	WIND
WZ032.00	06/27/06	LL	F	15	30	R	-	O	A	3.6	-	SW
WZ032.00	07/26/06	JXK	H	17	29	R	-	O	A	3.6	-	SW
WZ032.00	08/15/06	FP	LF	8	30	R	P	O	A	<3.0	-	S
WZ032.00	09/20/06	JXK	HE	18	31	R	-	O	A	-	12	CL
WZ032.00	10/04/06	FP	E	13	30	R	-	O	A	-	<2.0	CL
WZ033.00	05/30/06	JB	F	13	29	R	-	O	A	15	-	E
WZ033.00	06/27/06	LL	F	15	30	R	-	O	A	<3.0	-	SW
WZ033.00	07/26/06	JXK	H	18	30	R	-	O	A	<3.0	-	S
WZ033.00	08/15/06	FP	LF	8	30	R	P	O	A	9.1	-	S
WZ033.00	09/20/06	JXK	HE	18	30	R	-	O	A	-	<2.0	NW
WZ033.00	10/04/06	FP	E	13	30	R	-	O	A	-	<2.0	CL
WZ034.00	05/30/06	JB	F	9	30	R	-	O	A	<3.0	-	CL
WZ034.00	06/27/06	LL	F	15	25	R	-	O	A	<3.0	-	SW
WZ034.00	07/26/06	JXK	H	14	30	R	-	O	A	<3.0	-	CL
WZ034.00	08/15/06	FP	LF	8	29	R	P	O	A	<3.0	-	S
WZ034.00	09/20/06	JXK	HE	17	30	R	-	O	A	-	<2.0	NW
WZ034.00	10/04/06	FP	E	13	30	R	-	O	A	-	<2.0	SW
WZ035.00	05/30/06	JB	HF	9	30	R	-	C	P	<3.0	-	SE
WZ035.00	06/27/06	LL	F	16	22	R	-	C	P	3	-	SW
WZ035.00	07/26/06	JXK	H	20	25	R	-	C	P	3.6	-	SW
WZ035.00	08/15/06	FP	F	8	28	R	P	C	P	<3.0	-	S
WZ035.00	09/20/06	JXK	E	18	30	R	-	C	P	-	<2.0	CL
WZ035.00	10/04/06	FP	E	13	28	R	-	C	P	-	<2.0	CL
WZ035.50	05/30/06	JB	HF	11	30	R	-	O	A	<3.0	-	CL
WZ035.50	06/27/06	LL	HF	16	24	R	-	O	A	15	-	SW
WZ035.50	07/26/06	JXK	H	18	28	R	-	O	A	3.6	-	SW
WZ035.50	08/15/06	FP	F	9	29	R	P	O	A	<3.0	-	S
WZ035.50	09/20/06	JXK	E	17	30	R	-	O	A	-	2	CL
WZ035.50	10/04/06	FP	LE	15	30	R	-	O	A	-	11	CL
WZ036.00	05/30/06	JB	HF	13	24	R	N	O	A	1100	-	CL
WZ036.00	06/27/06	LL	HF	17	22	R	-	O	A	23	-	SW
WZ036.00	07/26/06	JXK	HE	18	28	R	-	O	A	43	-	CL
WZ036.00	08/15/06	FP	F	9	29	R	PN	O	A	<3.0	-	S
WZ036.00	09/20/06	JXK	E	19	28	R	-	O	A	-	160	NW
WZ036.00	10/04/06	FP	LE	14	30	R	-	O	A	-	24	CL
WZ038.80	05/30/06	JB	HF	13	25	R	-	C	P	7.3	-	E
WZ038.80	06/27/06	LL	H	20	18	R	-	C	P	43	-	SW
WZ038.80	07/26/06	JXK	HE	25	15	R	-	C	P	43	-	W
WZ038.80	08/09/06	FP	H	11	22	R	-	C	P	93	-	CL
WZ038.80	08/15/06	FP	F	9	26	R	P	C	P	3.6	-	S
WZ038.80	09/20/06	JXK	E	20	28	R	-	C	P	-	102	NE
WZ038.90	05/30/06	JB	HF	14	16	R	-	O	R	<3.0	-	E
WZ038.90	06/27/06	LL	H	22	16	R	-	O	R	93	-	SW
WZ038.90	07/26/06	JXK	HE	24	14	R	-	O	R	43	-	W
WZ038.90	08/09/06	FP	H	17	20	R	-	O	R	<3.0	-	CL
WZ038.90	08/15/06	FP	F	11	26	R	P	O	R	9.1	-	S
WZ038.90	09/20/06	JXK	E	21	29	R	-	O	R	-	15	NE



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	A1COL	MFCOL	WIND
WZ038.90	10/04/06	FP	LE	17	28	R	-	O	R	-	9.1	CL
WZ039.00	05/30/06	JB	H	9	30	R	-	C	P	<3.0	-	SE
WZ039.00	06/27/06	LL	H	16	25	R	-	C	P	9.1	-	SW
WZ039.00	07/26/06	JXK	HE	17	28	R	-	C	P	3.6	-	SW
WZ039.00	08/15/06	FP	F	9	30	R	P	C	P	9.1	-	S
WZ039.00	09/20/06	JXK	E	19	30	R	-	C	P	-	18	CL
WZ039.00	10/04/06	FP	LE	13	30	R	-	C	P	-	4	S
WZ040.00	05/30/06	JB	H	12	26	R	-	C	P	<3.0	-	E
WZ040.00	06/27/06	LL	H	16	25	R	-	C	P	9.1	-	SW
WZ040.00	07/26/06	JXK	HE	20	28	R	-	C	P	<3.0	-	SW
WZ040.00	08/15/06	FP	F	9	30	R	P	C	P	9.1	-	S
WZ040.00	09/20/06	JXK	E	19	30	R	-	C	P	-	36	CL
WZ040.00	10/04/06	FP	LE	15	30	R	-	C	P	-	6	S
WZ040.50	05/30/06	JB	H	9	30	R	-	C	P	9.1	-	NE
WZ040.50	06/27/06	LL	H	17	24	R	-	C	P	23	-	SW
WZ040.50	07/26/06	JXK	E	18	28	R	-	C	P	3.6	-	W
WZ040.50	08/15/06	FP	F	9	30	R	P	C	P	3.6	-	S
WZ040.50	09/20/06	JXK	E	18	30	R	-	C	P	-	<2.0	NW
WZ040.50	10/04/06	FP	LE	13	30	R	-	C	P	-	2	CL
WZ041.00	05/30/06	JB	H	10	30	R	-	O	A	<3.0	-	CL
WZ041.00	06/27/06	LL	E	19	25	R	-	O	A	210	-	SW
WZ041.00	07/26/06	JXK	E	20	28	R	-	O	A	9.1	-	SW
WZ041.00	08/15/06	FP	F	10	30	R	P	O	A	9.1	-	S
WZ041.00	09/20/06	JXK	E	19	30	R	-	O	A	-	4	CL
WZ041.00	10/04/06	FP	L	13	30	R	-	O	A	-	<2.0	S
WZ042.00	05/30/06	JB	H	11	28	R	-	O	A	<3.0	-	CL
WZ042.00	06/27/06	LL	E	15	26	R	-	O	A	<3.0	-	SW
WZ042.00	07/26/06	JXK	E	16	30	R	-	O	A	<3.0	-	SW
WZ042.00	08/15/06	FP	F	8	30	R	P	O	A	<3.0	-	S
WZ042.00	09/20/06	JXK	E	17	30	R	-	O	A	-	134	SE
WZ042.00	10/04/06	FP	L	13	32	R	-	O	A	-	<2.0	CL
WZ043.00	05/30/06	JB	HE	12	30	R	-	O	A	<3.0	-	S
WZ043.00	06/27/06	LL	HE	16	28	R	-	O	A	15	-	SW
WZ043.00	08/09/06	FP	HE	9	30	R	-	O	A	93	-	CL
WZ043.00	08/15/06	FP	F	8	31	R	P	O	A	3.6	-	S
WZ043.00	09/20/06	JXK	E	19	28	R	-	O	A	-	<2.0	NE
WZ043.00	10/04/06	FP	L	14	32	R	-	O	A	-	<2.0	CL
WZ044.00	05/30/06	JB	HE	16	28	R	-	O	A	<3.0	-	CL
WZ044.00	06/27/06	LL	HE	15	30	R	-	O	A	240	-	SW
WZ044.00	08/09/06	FP	HE	9	29	R	-	O	A	<3.0	-	CL
WZ044.00	08/15/06	FP	F	8	31	R	P	O	A	<3.0	-	S
WZ044.00	09/20/06	JXK	E	18	30	R	-	O	A	-	2	E
WZ044.00	10/04/06	FP	L	14	30	R	-	O	A	-	4	CL
WZ045.00	05/30/06	JB	HE	14	28	R	-	C	P	<3.0	-	CL
WZ045.00	06/27/06	LL	HE	17	26	R	-	C	P	43	-	SW
WZ045.00	08/09/06	FP	E	11	30	R	-	C	P	9.1	-	CL



Station	Date	Collector	Tide	Temp	Sal	Strat	ADV	Stat	CL	A1COL	MFCOL	WIND
WZ045.00	08/15/06	FP	F	9	31	R	P	C	P	<3.0	-	S
WZ045.00	09/20/06	JXK	E	19	30	R	-	C	P	-	27	CL
WZ045.00	10/04/06	FP	E	12	30	R	N	C	P	-	18	CL
WZ046.00	06/27/06	LL	HE	19	24	R	-	C	P	93	-	SW
WZ046.00	08/09/06	FP	E	10	30	R	N	C	P	43	-	CL
WZ046.00	08/15/06	FP	F	9	30	R	PN	C	P	3	-	S
WZ046.00	08/29/06	FP	F	18	30	R	NW	C	P	-	<2.0	CL
WZ046.00	09/20/06	JXK	E	20	30	R	-	C	P	-	140	CL
WZ046.00	10/04/06	FP	E	14	30	R	N	C	P	-	140	CL
WZ047.00	06/27/06	LL	HE	18	22	R	-	C	P	15	-	SW
WZ047.00	08/09/06	FP	E	9	30	R	-	C	P	43	-	CL
WZ047.00	08/15/06	FP	F	10	30	R	P	C	P	9.1	-	S
WZ047.00	08/29/06	FP	F	18	30	R	-	C	P	-	2	CL
WZ047.00	09/20/06	JXK	E	17	30	R	-	C	P	-	50	CL
WZ047.00	10/04/06	FP	E	14	31	R	N	C	P	-	6	CL
WZ048.00	06/27/06	LL	HE	18	28	R	-	C	P	7.3	-	SW
WZ048.00	08/09/06	FP	E	10	30	R	-	C	P	<3.0	-	CL
WZ048.00	08/15/06	FP	F	8	31	R	P	C	P	<3.0	-	S
WZ048.00	08/29/06	FP	F	19	29	R	-	C	P	-	2	CL
WZ048.00	09/20/06	JXK	E	20	30	R	-	C	P	-	150	CL
WZ048.00	10/04/06	FP	E	14	30	R	-	C	P	-	50	CL
WZ048.50	08/09/06	FP	E	9	30	R	-	C	P	<3.0	-	S
WZ048.50	08/15/06	FP	F	9	31	R	P	C	P	<3.0	-	S
WZ048.50	08/29/06	FP	F	19	31	R	-	C	P	-	<2.0	CL
WZ048.50	09/20/06	JXK	E	19	30	R	-	C	P	-	20	NW
WZ048.50	10/04/06	FP	E	13	31	R	-	C	P	-	2	SW
WZ049.00	06/27/06	LL	H	17	30	R	-	C	P	93	-	SW
WZ049.00	08/09/06	FP	E	10	30	R	-	C	P	23	-	S
WZ049.00	08/15/06	FP	F	9	31	R	P	C	P	23	-	S
WZ049.00	08/29/06	FP	F	19	30	R	-	C	P	-	7.3	CL
WZ049.00	09/20/06	JXK	E	21	30	R	-	C	P	-	35	CL
WZ049.00	10/04/06	FP	E	15	30	R	-	C	P	-	25	CL
WZ054.00	05/30/06	JB	F	12	29	R	-	C	P	<3.0	-	E
WZ054.00	08/09/06	FP	HF	9	30	R	-	C	P	3.6	-	CL
WZ054.00	08/15/06	FP	L	9	30	R	P	C	P	43	-	S
WZ054.00	08/29/06	FP	F	19	31	R	-	C	P	-	<2.0	CL
WZ054.00	09/20/06	JXK	H	17	30	R	-	C	P	-	680	CL
WZ054.00	10/04/06	FP	E	11	30	R	-	C	P	-	40	N
WZ055.00	05/30/06	JB	F	12	30	R	-	C	P	<3.0	-	E
WZ055.00	06/27/06	LL	E	18	30	R	-	C	P	3.2	-	SW
WZ055.00	08/09/06	FP	H	10	30	R	-	C	P	<3.0	-	CL
WZ055.00	08/15/06	FP	LF	9	30	R	P	C	P	3.6	-	S
WZ055.00	09/20/06	JXK	H	17	30	R	-	C	P	-	8	CL
WZ055.00	10/04/06	FP	E	13	30	R	-	C	P	-	<2.0	N

Appendix C. Gordon Gates outhouse, located 130 feet from mean high tide on Greens Island





The back side of outhouse shown on previous page. This photo shows the clean out area with door removed for viewing.