GROWING AREA WD
Towns of Ogunquit, Wells and Kennebunk

Sanitary Survey Report

Report Date: 01-30-2012

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APPROVAL

Division Director:

Kohl Kanwit 1/30/12

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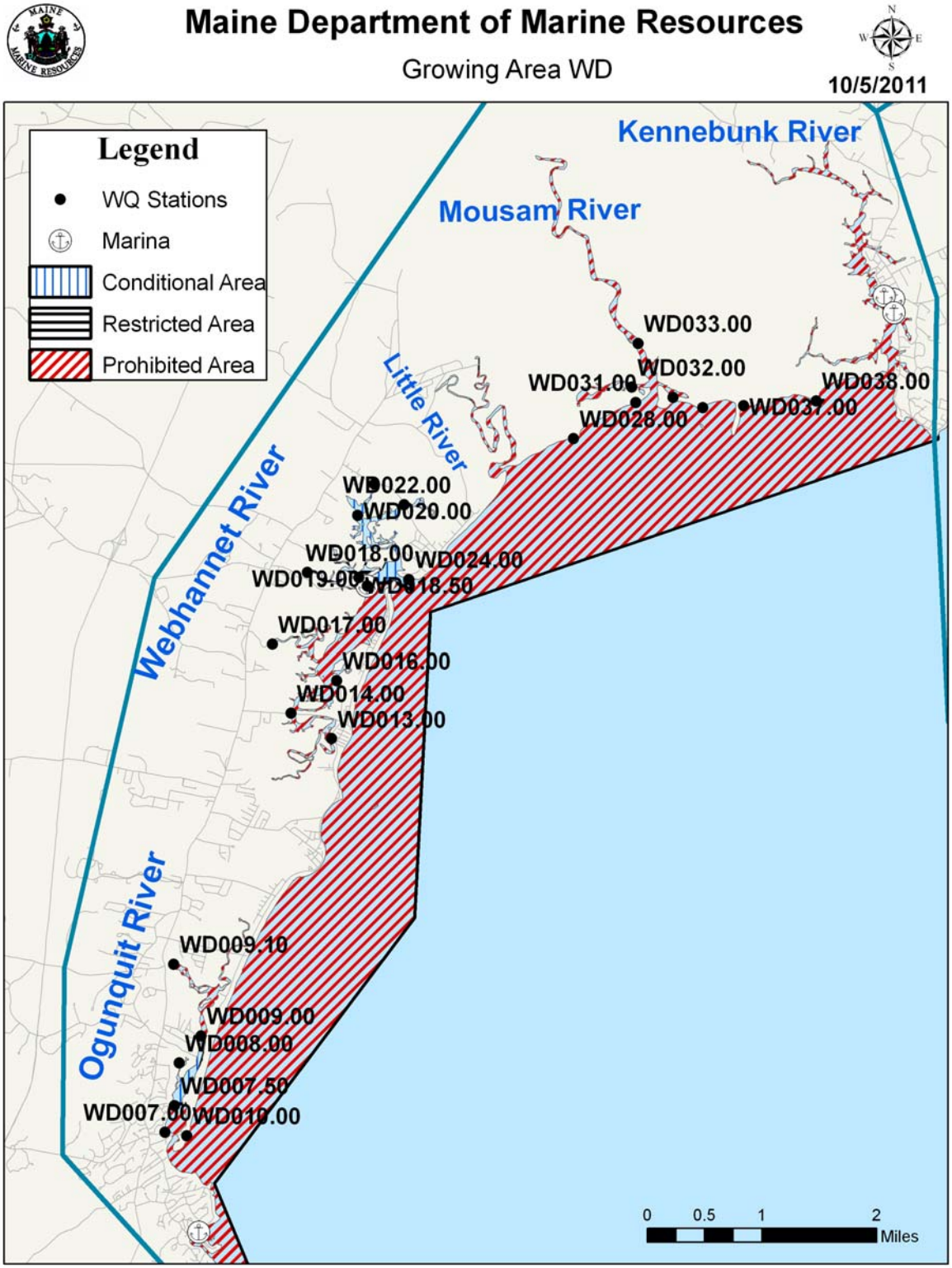

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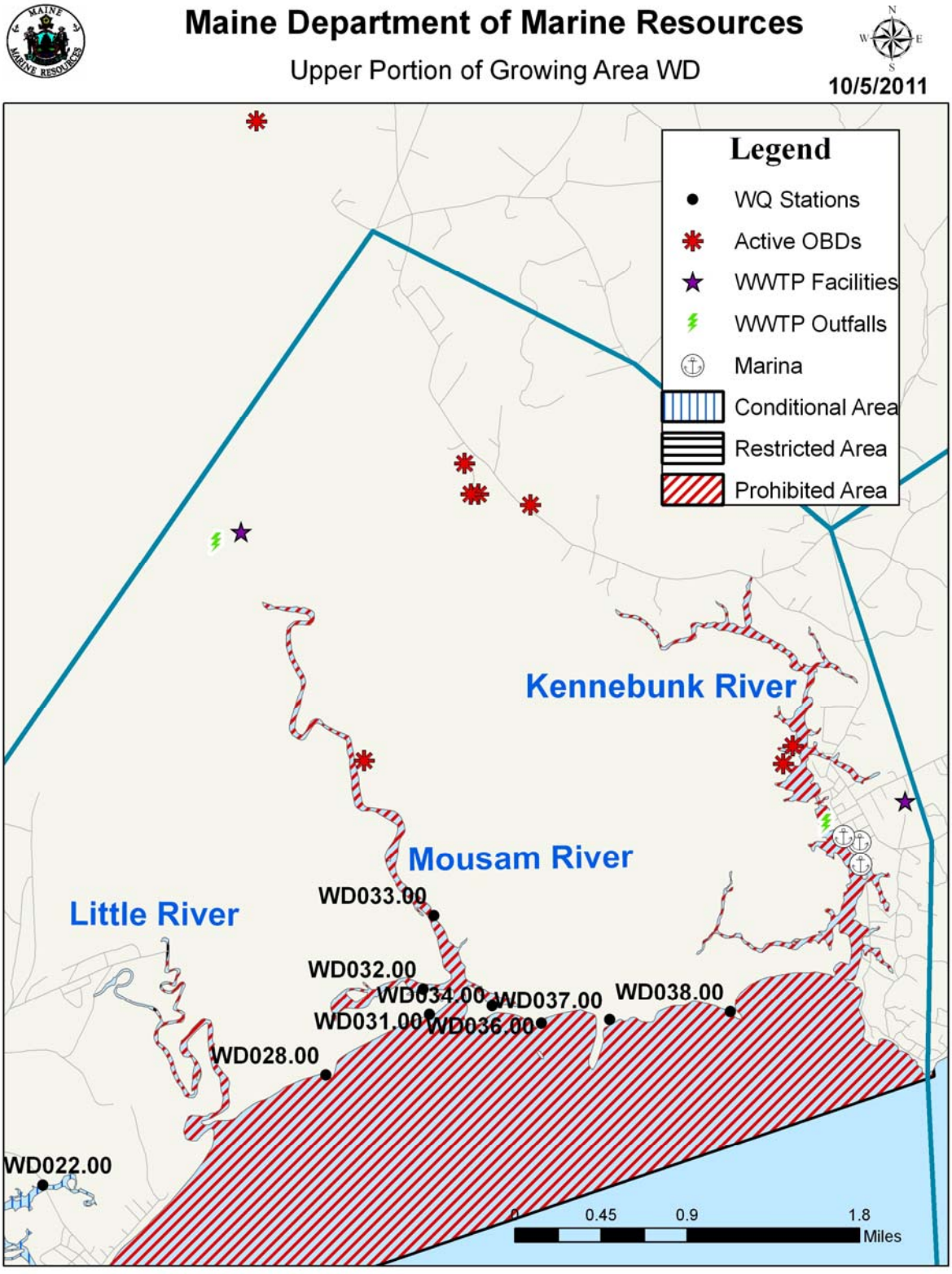

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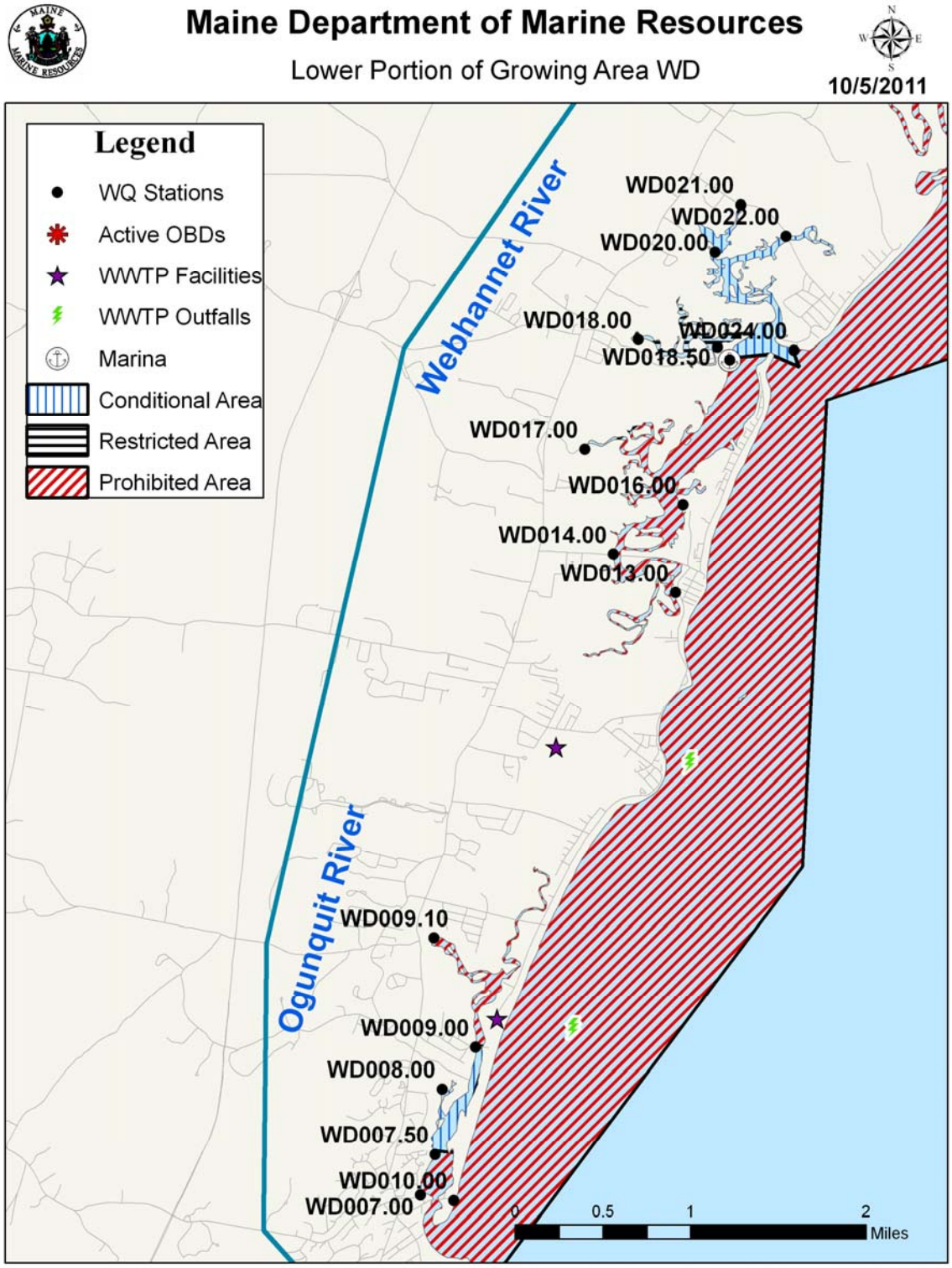


Executive Summary

This is a sanitary survey report for growing area WD written in compliance with the requirements of the 2009 Model Ordinance and the National Shellfish Sanitation Program.

Growing Area WD includes the Ogunquit, Webhannet, Little, Mousam and the Kennebunk Rivers (Figure 1). Existing pollution sources in this growing area include four municipal waste water treatment plants (WWTP), five marinas, and active over board discharges (OBD's). There were no additional pollution sources identified during the 2010 review year. On February 13, 2009 all stations within area WD where reclassified to prohibited due to an expired shoreline survey. On February 4, 2010 stations WD 1, 24.5, and 24.7 were deactivated due to the lack of shellfish resources and stations being in the dilution zone for a WWTP.

On June 3, 2010 DMR did a sanitary survey of the Ogunquit River from Bridge St. north to Ocean St (road to walking bridge). On July 20, 2010 DMR did a sanitary survey of the Webhannet River in Wells. There were no additional potential pollution sources identified during either survey.

There are 3 stations in the Oqunquit River and 6 stations in the Webhannet River that are being recommended for an upward classification due to the completion of a sanitary survey and water quality meeting the appropriate NSSP standards. On Nov 4, 2010, station WD020.00 was reactivated to help provide additional water quality information for the Webhannet Seasonal Conditional Area. On November 16, 2010, station WD018.50 was created to monitor water quality in an area that was seeded by the Town of Wells.

Growing Area Description

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

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

History of Growing Area Classification

2007

April 11 - Pope Creek and Depot Brook in the Webhannet River were reclassified as restricted, due to non-point pollution.
April 20 - The Mousam River, Drakes Island Beach and the Kennebunk beaches were closed following a sewage bypass at the Kennebunk Wastewater Treatment Plant. The prohibited area around the outfall was permanently enlarged and none of the beaches reopened.

2008

No Classification changes.

2009

February 13 - All stations within growing area WD where reclassified to prohibited due to an expired shoreline survey.

2010

November 1 - The Ogunquit River Seasonal Conditional Area was reopened after a completed shoreline survey and water quality meeting the approved standard during the open status.

December 1 - The upper portion of the Webhannet River Seasonal Conditional Area was reopening after a completed shoreline survey and water quality meeting the approved standard during the open status

Current Classification(s)

At the end of the 2010 review year, shellfish growing area WD had areas classified as:

Conditionally Approved
- Ogunquit River (3 stations)
- Webhannet River (5 stations)

Restricted
- Webhannet River (2 stations)

Prohibited
- Ogunquit River (2 stations)
- Ogunquit Beach (1 station)
- Webhannet River (4 Stations)
- Mousam River (3 stations)
- Kennebunk (5 stations)

Please visit the DMR website to view legal notices:

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

Activity during Review Period

Activity in 2008

On July 18, 2008, the Kennebunkport Sewer Department (KSD) reported that for several hours severe thunder showers hit the Kennebunk area. A total of 7 pump stations including Wells Road Pump Station came into alarm conditions due to power outages. All have radio telemetry

to the main treatment plant and all were working properly. The on call person and another KSD employee responded to Wells Road Pump Station and discovered the station working properly and on emergency power. They continued to take care of several other stations that require portable generators. During that time and before they could get back and check the Wells Road Pump Station a control breaker tripped causing the pumps to not run. The breaker has been replaced as a precaution due to possible lightning damage. Upon returning to Wells Road Pump Station personnel noticed the manhole was overflowing and discovered the problem with the breaker. The problem was taken care of immediately. KSD estimated approximately 2 hours of overflow as explained in the NON-COMPLIANCE/DISCHARGE REPORT to DEP for a maximum amount. The DMR was not notified of this discharge until later when the DEP forwarded an e-mail. The Wells Road pump station is located in a prohibited area.

Activity in 2009

January 21, 2009 - Ogunquit Sewer District Superintendent, Phil Pickering, called on at 3pm to report an overboard discharge at pump station #1 of treated effluent for 4 hours overnight (5-9pm). At 5am the pump was running again. Worst case 48,000 gallons.

Activity in 2010

June 3, 2010 – DMR did a sanitary survey of the Ogunquit River from Bridge St. north to Ocean St (road to walking bridge). The Ogunquit Sewer District confirmed that all properties within 500 ft are on town sewer except two. There is one property outside of the 500 ft area that has a septic system and was surveyed due to a stream that runs adjacent to property and connects to the river. One of the 3 systems were surveyed; however two were not due to property owners not being home to permit access. There were no issues found with the septic systems inspected.

July 7, 2010 - Willis from the Kennebunk WWTP called to inform DMR that a force main break occurred at a pump station on Boothby Rd (S. of Kennebunk Beach). There was some spillage into the marsh, however this area is currently prohibited so no action was required.

July 20, 2010 – DMR staff did a sanitary survey of the Webhannet River in Wells. The Wells Sewer District confirmed that all properties except for 16 are on public sewer. A drive through survey was done of the public sewer area and each property not on sewer was visited. However, only 1 of the 16 properties was able to be inspected due to no property owner's home to grant permission to access the property.

August 24, 2010 – DMR and the Codes Enforcement officer for Ogunquit, Paul Lempicki, re-visited the 2 properties that were inaccessible on June 3rd. Paul found no concerns during his inspection.

Conditionally Managed Area(s)

There are two conditionally managed areas based on seasonal variation located in the Ogunquit and Webhannet Rivers. The Ogunquit River seasonal area was reclassified and opened on November 1, 2010. There are 3 stations that monitor this conditional area; WD 7.5, 8, and 9. At the end of the 2010 review year, station WD 8 no longer met the approved standard during the open status of November 1 – April 30. The conditional area was modified on Jan 19, 2011. The

Webhannet River seasonal area was reclassified and opened on December 1, 2010. There are 5 stations that monitor this conditional area; WD 19, 20, 21, 22, and 24.

Pollution Sources Survey

The following sections include information on pollution sources which do or may impact water quality in growing area WD. Pollution sources that are reviewed in this section include domestic waste, including both private inground systems and over board discharges (OBDs), marinas and mooring fields, stormwater and pollution from non-point sources (streams), farms and other agricultural activities, domestic animals and wildlife areas, and recreational areas.

Domestic Waste *(IG Systems and OBDs)*

There were no actual pollution sources associated with private in-ground systems documented during the last sanitary survey in 2010.

There are eight active overboard discharges (OBDs) that release their treated effluent into the waters of the Gulf of Maine and the Kennebunk and Mousam Rivers (Figure 4). An overboard discharge (OBD) is the discharge of wastewater from residential, commercial, and publicly owned facilities to Maine's streams, rivers, lakes, and the ocean. Commercial and residential discharges of sanitary waste have been regulated since the mid-1970's when most direct discharges of untreated waste were banned. Between 1974 and 1987 most of the "straight pipes" were connected to publicly-owned treatment works or replaced with standard septic systems. Overboard discharge treatment systems were installed for those facilities that were unable to connect to publicly-owned treatment works or unable to install a septic system because of poor soil conditions or small lot sizes.

All overboard discharge systems include a process to clarify the wastewater and disinfect it prior to discharge. There are two general types of treatment systems; mechanical package plants and sand filters. Sand filter systems consist of a septic tank and a sand filter. In such systems, the wastewater is first directed to a holding tank where the wastewater solids are settled out and undergo partial microbial digestion. The partially treated wastewater then flows from the tank into a sand filter, consisting of distribution pipes, layers of stone and filter sand, and collection pipes within a plastic liner. The wastewater is biologically treated as it filters down through the sand, and is then collected and discharged to a disinfection unit. Mechanical package plants consist of a tank, where waste is mechanically broken up, mixed and aerated; mechanical systems require electric power, and must have an operating alarm on a separate electrical circuit that will activate if the treatment unit malfunctions due to a power failure. The aerated treated wastewater is held in a calm condition for a time, allowing for solids to settle and for the waste to be partially digested by naturally occurring bacteria. The clarified water from the tank is then pumped off the top into a disinfection unit. There are two types of disinfection units, UV and chlorinators (most common). In a chlorinator, the treated water contacts chlorine tablets and remains in a tank for at least 20 minutes where bacteria and other pathogens are killed. The treated and disinfected water is discharged from the disinfection unit to below the low water mark of the receiving waterbody (the ocean, a river, or a stream) via an outfall pipe.

OBDs are licensed and inspected by the Maine Department of Environmental Protection. At each inspection, DEP looks for tags on each treatment unit identifying the service contractor

and the last date of service. If an OBD is not properly maintained, or if the OBD malfunctions, it has the potential to directly discharge untreated wastewater to the shore; therefore, preventative closures are implemented surrounding every OBD located in growing area WD (Table 1). The size of each closure is determined based on a dilution, using on the permitted flow rate of the OBD (in gallons per day, GPD), and the depth of the receiving water that each OBD discharges to; the fecal concentration used for this dilution calculation is $1.4X10^5$ FC /100 ml. All current closures are of adequate size to protect public health.

Figure 4. Growing Area WD with Active OBDs

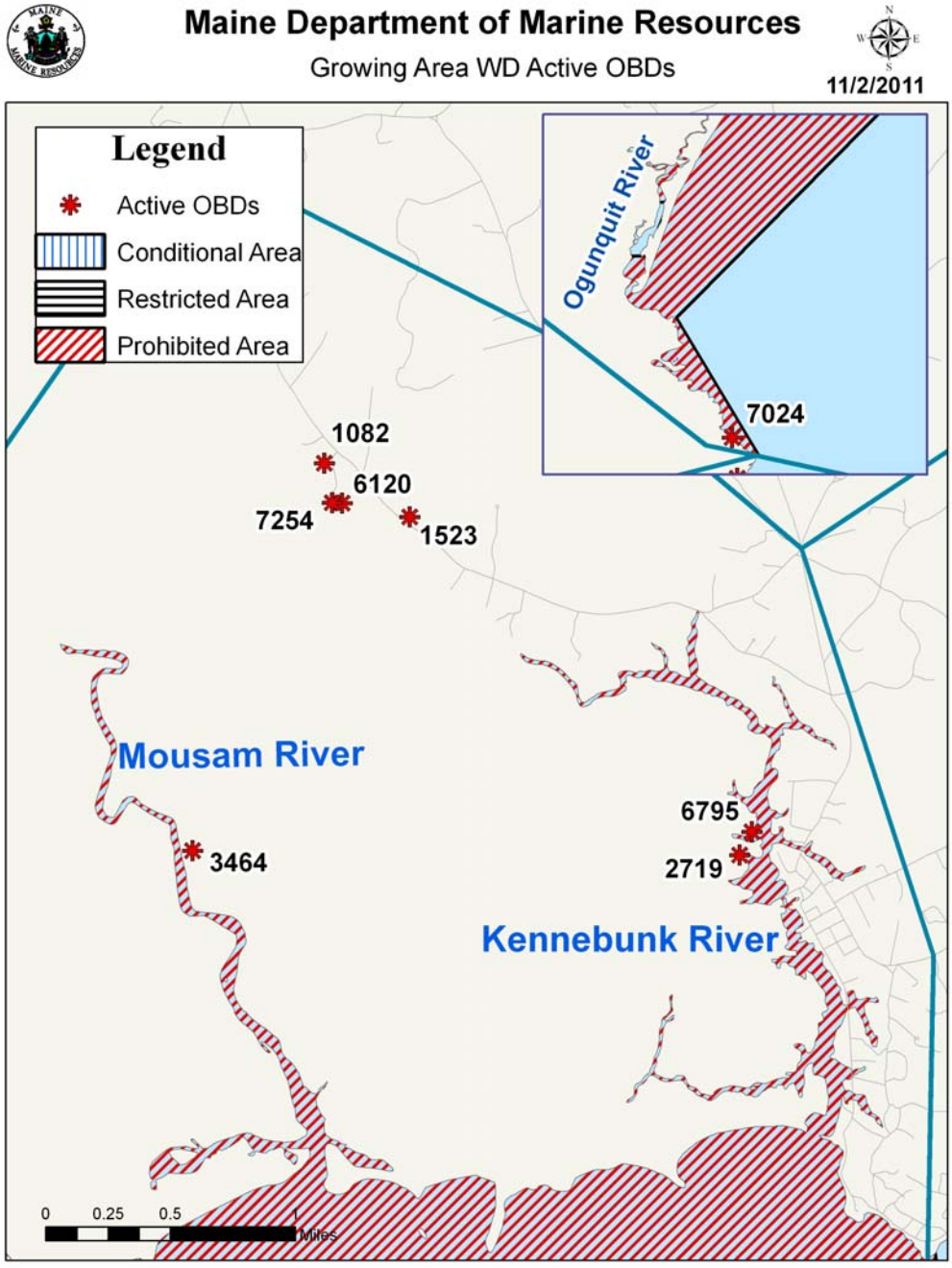


Table 1. Growing Area WD Licensed OBDs

DEP_ID	Town	Receiving Water	Depth Receiving Water	Licensed Flow (GPD)	Type*	Required Closure Acres	Acres Closed
1082	Arundel	Kennebunk River	4	300	Sandfilter	2.3015	Entire River
7254	Arundel	Kennebunk River	4	300	Sandfilter	2.3015	
6120	Arundel	Kennebunk River	4	300	Sandfilter	2.3015	
1523	Arundel	Saunder's Brook	4	300	Sandfilter	2.3015	Entire Brook
6795	Kennebunk	Kennebunk River	4	360	Sandfilter	2.7618	Entire River
2719	Kennebunk	Kennebunk River	4	300	Sandfilter	2.3015	
3464	Kennebunk	Mousam River	4	300	Sandfilter	2.3015	Entire River
7024	York	Gulf of Maine	13	300	Sandfilter	0.7081	Entire Shore

*S= sand filter; M=mechanical

Municipal WWTP

Area WD has four municipal sewage treatment plants (Ogunquit, Wells, Kennebunk, and Kennebunkport). The Ogunquit WWTP serves a population of approximately 1,400 users in the winter and 50,000 users in the summer. There are no significant industrial users within the collection system. The collection system consists of eleven miles of pipe and twelve pump stations. The collection system is completely separate from the storm water collection system. This facility provides a secondary level of treatment via an activated sludge system. The treatment process includes an influent flow meter, a bar screen, grit chamber, four aeration basins (totaling 532,00 gallons) with fine bubble diffused aeration, two secondary clarifiers (each 45 feet in diameter and 12 feet deep) and a serpentine chlorine contact tank with a volume of 66,000 gallons followed by a flow meter. The effluent is disinfected on a year-round basis with sodium hypochlorite and de-chlorinated with sodium bisulfite. The treated effluent is discharged to the Atlantic Ocean approximately 1,950 feet offshore.

The Kennebunk WWTP serves a population of approximately 3,100 users. There are no significant industrial users within the collection system. The collection system is 99% separated sewage that is roughly 38 miles in length with 24 pumps stations. All pump stations have on-site generators to provide back-up power or are fitted with receptacles where portable generators can be used to supply power in the event of a power failure. Waste waters receive a preliminary level of treatment via a step-screen and grit removal followed by flow measurement via a 9 –inch Parshall flume. Waste waters then receive a primary level of treatment via two primary clarifiers measuring 45 feet in diameter with sidewall depths of 12 feet. Secondary treatment is done with three trains of three high density rotating biological contractors (RBC's). After biological treatment waste water is conveyed to two secondary clarifiers. As part of a recent upgrade, a recycle stream from the secondary clarifiers was added so that the RBC basins also act as activated sludge tanks. Also included in the facility improvements are the addition of chlorine tanks. Waste water is disinfected with sodium hypochlorite and dechlorinated with sodium bisulfite prior to being discharged to the Mousam River.

The Wells WWTP has a collection system that is 35 miles in length and is a completely separated system. There are nine pump stations with audible and visible alarms, each with emergency generators. There are no significant industrial users within the collection system.

Waste water passes through a vortex grit system and then into a splitter box that controls flow to the six 100,000 gallon capacity aeration tanks. During the summer, four of the six tanks are used and during the remainder of the year one tank is used. After Labor Day, three tanks are emptied, cleaned, and left on standby. There are two 250,000 gallon secondary clarifiers, of which only one is currently in use. From the clarifier, flow passes to one of two chlorine contact tanks where it is disinfected with sodium hypochlorite based on flow and chlorine residual. Dechlorination is done with sodium bisulfite. The effluent is discharged to the Atlantic Ocean.

The Kennebunkport WWTP is a secondary treatment plant with year disinfection. The design flow is 0.70 mgd with an average daily flow of 0.356 mgd and peak wet weather flow of 0.66 mgd. The 16 inch outfall pipe is located at the end of Wharf Lane in three feet of water at low tide. It does not go out into the river. The WWTP processes approximately 112 million gallons of wastewater per year. The collection system has approximately 95,000 feet of gravity sewer lines. There are 14 major pump stations and 90 grinder pumps that are located throughout the collection system. (Kennebunkport Sewer Department) The treated effluent is conveyed to the Kennebunk River through a 10-inch diameter pipe that is a 2,330 foot long force main followed by a ~15 inch , 720 foot long gravity outfall pipe without a diffuser. There are no known combined sewer overflow points in the system.

Industrial Pollution

There are no permitted industrial discharges into growing area WD.

Marinas and Mooring Fields

The Wells town landing, in the Webhannet River (Figure 3), has limited docking space, but according to an interview with the harbormaster on January 29, 2008, there are approximately 150 moorings located near the mouth of the river. About 22 of the moorings are used by pleasure boats, half of those have heads, and some are used overnight. Summer is the peak season, but moorings are used from May 1 through November 1. During the summer months there is a pump station at the town dock that connects to the town sewer.

There are also several small marinas in the Kennebunk River (Figure 2):

- Chick's Marina accommodates power and sail vessels up to 150 feet on floating docks, deep water slips and dockage for seasonal and transient boaters. Gas and diesel fuel are available. Bathrooms, shower and laundry facilities are available and a supply store, repair and maintenance facilities and 35/50/100 amp electrical service. Chick's Marina has a pump out station.
- Kennebunkport Marina accommodates boats up to 40 feet in length for summer dockage. The summer season runs from May 15 through October 15. They provide electrical service at 30 and 50 amps, private head and showers, hauling and transporting services, mechanical services and pump out services.
- Arundel Yacht Club is a volunteer run yacht club. There is a public boat launch that is accessible at high tide. There is fresh water, dock lighting, a pump out station and electric supplied at the docks. They have a club for functions and offer winter docking fees.
- Arundel Wharf is a restaurant surrounded by water on three sides. They have limited docking space available for fishing and sailing charter operations including the 55 foot Schooner Eleanor which is available for private charters.

- Yachtsman Lodge and Marina is a full service marina. They provide showers and head facilities, seasonal and transient vessel dockage is offered by the day, week or a seasonal stay (May 15-October 15).
- Performance Marine (Kennebunk) is a full service marina which provides overnight docking, fuel, fresh water, restrooms and showers, a pump out station and shore power. They are a full service boat repair facility with a travel lift and mechanical services.
- Federal Jacks
- Reid's Yacht Yard (Kennebunk) provides private docks with shore power, fresh water and overnight docking.

From an interview with the Kennebunk harbormaster on July 24, 2008, the above marinas have 8 to 10 boats each on slips. There is no public landing and the harbormaster only oversees a mooring basin with 67 moorings. According to the DEP Application for a State Designated, Federally Approved No Discharge Area for Kennebunk Wells Area, there are three large marinas on the Kennebunk River which service approximately 450 boats. The vessels are predominantly privately owned recreational craft, ranging from under 16 feet to a number of large yachts over 40 feet. The Kennebunk Rivers marinas have little room for transient boaters. Most transient boaters either pick up a mooring in the river, or tie alongside another vessel. The DEP calculated the number of boats with heads in the Kennebunk River at 136. The Kennebunk River is classified prohibited due to the presence of the Kennebunk WWTP outfall and non-point pollution.

Stormwater

Stormwater runoff is generated when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates debris, chemicals, sediment or other pollutants that could adversely affect water quality if the runoff is discharged untreated (US EPA 2009). Thus, stormwater pollution is caused by the daily activities of people within the watershed. Currently, polluted stormwater is the largest source of water quality problems in the United States.

The primary method to control stormwater discharges is the use of best management practices (BMPs). In addition, most major stormwater discharges are considered point sources and require coverage under an NPDES permit. In 1990, under authority of the Clean Water Act, the U.S. EPA promulgated Phase I of its stormwater management program, requiring permitting through the National Pollution Discharge Elimination System (NPDES). The Phase I program covered three categories of discharges: (1) "medium" and "large" Municipal Separate Storm Sewer Systems (MS4s) generally serving populations over 100,000, (2) construction activity disturbing 5 acres of land or greater, and (3) ten categories of industrial activity. In 1999, US EPA issued Phase II of the stormwater management program, expanding the Phase I program to include all urbanized areas and smaller construction sites.

Although it is a federal program, in the state of Maine, the Phase II Stormwater permit is issued and regulated by the Maine DEP (Chapter 500 and 502). Under the MS4 regulations, each municipality must implement the following six Minimum Control Measures: (1) Public education and outreach, (2) Public participation, (3) Illicit discharge detection and elimination, (4) Construction site storm water runoff control, (5) Post-construction stormwater management, and

(6) Pollution prevention/good housekeeping. The permit required each city or town to develop a draft Stormwater Management Plan by September 3, 2003 that will establish measurable goals for each of the Minimum Control Measures. The Town must document the implementation of the Plan, and provide annual reports to the Maine DEP. Currently the discharge of stormwater from 28 Maine municipalities is regulated under the Phase II permit requirements, however, no municipalities located within the boundaries of growing area WD fall under these regulations. Additionally, the Maine Stormwater Management Law provides stormwater standards for projects located in organized areas that include one acre of more of disturbed area (Maine DEP 2009).

Non-Point Pollution Sources *(streams, etc)*

Streams are a source of fresh water to the Ogunquit and Webhannet Rivers seasonal conditional areas, and may carry stormwater, snowmelt and groundwater into the coastal estuaries. Waste, including that containing fecal matter, which is deposited on land, may be carried by streams to shellfish growing areas, contributing to elevated fecal counts in waters that are filtered by shellfish.

In 2010, three streams in the Ogunquit River and two streams in the Webhannet River were evaluated (Tables 2 and 3, and Figure 5). Additional stream sampling is recommended during the open status of both conditional areas.

Table 2. Ogunquit River Streams

Stream ID #	**Date Sampled** 9/14/2010	**Date Sampled** 11/1/2010	**Date Sampled** 11/16/2010
	Score	**Score**	**Score**
S1WD007.00	112	4	3.6
S1WD008.00	68	27	No access
S1WD009.10	1180	42	33

Table 3. Webhannet River Streams

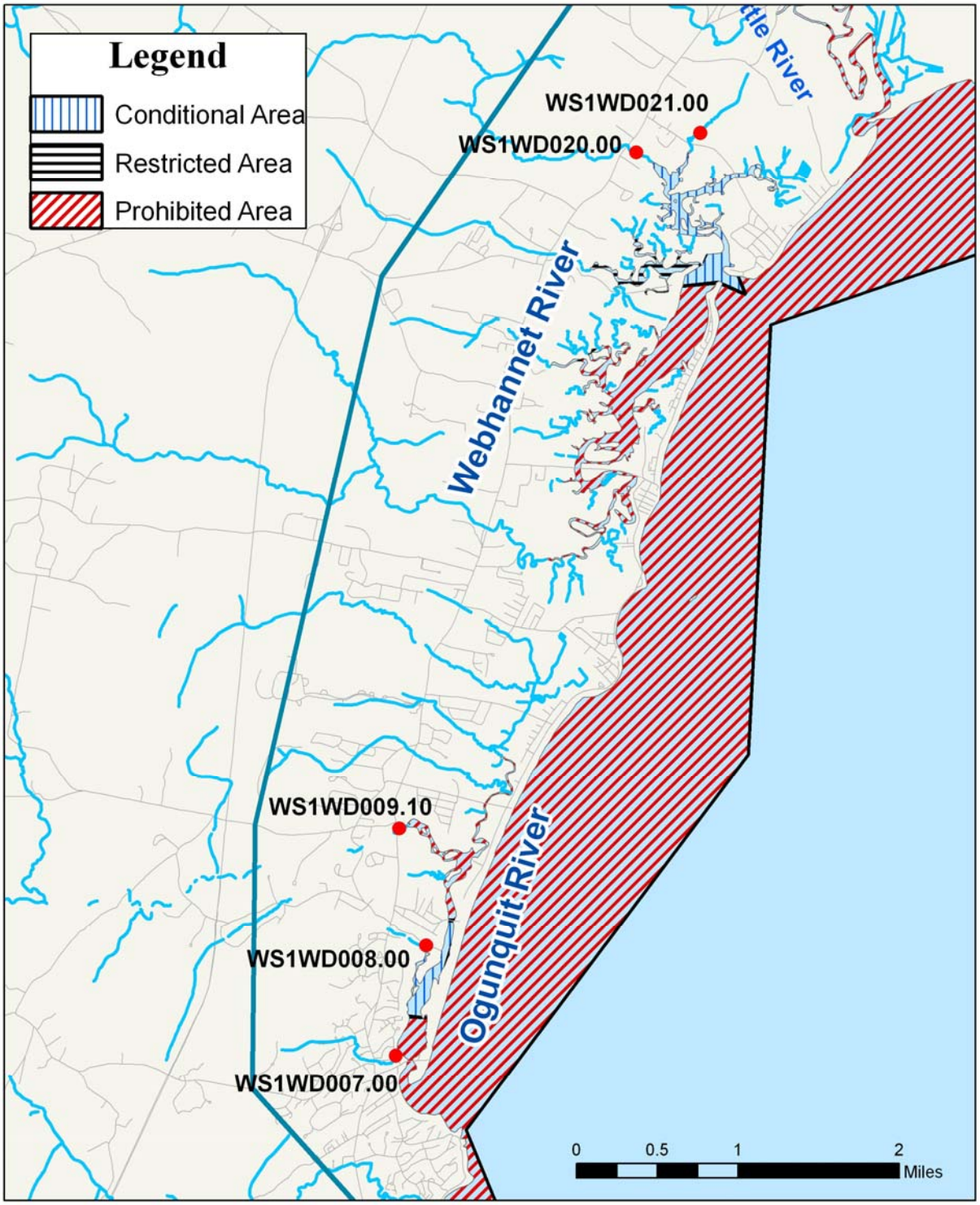
Stream ID #	Date Sampled 11/16/2010
	Score
S1WD020.00	8
S1WD021.00	10

Figure 5. Area WD with Stream Locations

Maine Department of Marine Resources

Growing Area WD Streams

11/2/2011



Agricultural Activities

There are no farming operations in the vicinity of the shoreline of growing area WD.

Domestic Animals and Wildlife Activity

The Ogunquit Beach is a popular place for horse back riding. The Town of Ogunquit allows horses on their beach from October through March. Horses are not permitted from April 1 to September 30. Dogs are permitted within the Ogunquit Beach Area from October 1 to March 31, if on a leash, cord, or chain. Dogs are not permitted within the entire Ogunquit Beach Area from the Main Beach to the Moody Beach Town Line from April 1 to September 30.

Conservation/Recreation Areas

Most of the land around the Webhannet River, Little River and the mouth of Mousam River is part of the Rachel Carson Preserve. There are a number of migratory birds and other wildlife that have the potential to contribute to non-point pollution.

Hydrographic and Meteorological Assessment

Tides

In order to investigate the frequency of elevated scores (those that surpass the variability standard) at various tidal stages, a tidal assessment for all active stations in growing area WD, was completed (Table 4). For this assessment, all Systematic Random Sampling (SRS) data collected between 2003 and 2010 were grouped by tidal stage (ebb vs. flood); geometric means and P90 scores were calculated using this data grouping. The specific tidal intervals that were grouped into the ebbing tide stage are ebb, high ebb, low, and low ebb. Tidal intervals that were grouped in the flood tide stage were flood, high flood, high and low flood. A separate tide assessment (Table 5 and 6) was completed for the conditional stations in the Ogunquit and Webhannet Rivers. The only data included for this analysis was data collected in the open status during the years 2003-2010.

Several of the prohibited and restricted stations that exceeded the P90 standard on an ebb tide stage also exceeded the P90 standard during the flood tide stage. All three stations that monitor the Ogunquit River conditional area are impacted by an ebb tide, which suggests non-point pollution or impact from streams. There are three streams that drain into or around this area that have the potential to impact water quality. There is one station in the Webhannet River (WD 24) that is impacted on a flood stage.

Table 4. Ebb and Flood Tide Stage Impact, 2003-2010

		Ebb Tide						Flood Tide					
Station	Class	Count	GM	MAX	P90	Appd_Std	Restr_Std	Count	GM	MAX	P90	Appd_Std	Restr_Std
WD007.00	P	39	8.1	240	49.3	40	229	45	7.6	1100	57.4	36	202
WD010.00	P	19	2.8	15	5.2	42	247	32	3.6	280	13.8	36	201
WD013.00	P	17	14	180	74.7	39	225	33	11	92	49.4	38	215
WD014.00	P	25	6.9	240	39.3	39	223	40	7.1	340	39.5	37	208
WD016.00	P	19	7.5	52	31.7	38	217	43	7.7	116	42	37	210

Station	Class	Ebb Tide						Flood Tide					
		Count	GM	MAX	P90	Appd_Std	Restr_Std	Count	GM	MAX	P90	Appd_Std	Restr_Std
WD017.00	P	20	20	130	116	38	221	36	15	520	80.6	38	221
WD018.00	R	22	20	460	130	38	221	34	18	240	106	38	221
WD018.50	R	1	6	6		31	163						
WD028.00	P	18	2.9	15	6.8	36	199	31	2.6	9.1	4.1	39	223
WD031.00	P	26	7.8	1100	68.8	39	226	34	4.7	460	25.6	40	229
WD032.00	P	30	5.2	54	17.5	38	221	30	5.7	122	25.8	40	235
WD033.00	P	24	7.3	240	39.5	38	215	26	4.5	52	13.2	38	216
WD034.00	P	22	3.7	20	9.7	36	203	27	3.8	14	8.3	39	223
WD036.00	P	24	5	80	20.7	37	210	26	3.1	10	6.9	38	221
WD037.00	P	24	3.2	43	9.3	36	204	25	9	180	67.4	39	223
WD038.00	P	24	2.5	6	3.8	36	204	25	3.3	38	8.7	39	223
WG024.70	R	17	10	280	92.6	31	168	19	6.5	280	42.1	32	173
WG032.00	R	25	10	200	60.7	37	208	30	5.8	150	26.7	36	199
WG034.00	R	30	11	440	81.5	36	203	46	6.2	460	40.8	34	188

Table 5. Ebb and Flood Tide Stage Impact for the Ogunquit River Conditional Area, Open Status Nov. 1 - April 30, 2003-2010

Station	Class	Ebb Tide						Flood Tide					
		Count	GM	MAX	P90	Appd_Std	Restr_Std	Count	GM	MAX	P90	Appd_Std	Restr_Std
WD007.50	CA	18	6.9	520	55	38	221	13	3.5	15	9.1	38	216
WD008.00	CA	22	7.9	960	65	39	227	19	5.6	42	18	37	210
WD009.00	CA	24	5.9	124	29	39	226	19	5.1	43	20	37	210

Table 6. Ebb and Flood Tide Stage Impact for the Webhannet River Conditional Area, Open Status Dec. 1 - April 30, 2003 - 2010

Station	Class	Ebb Tide						Flood Tide					
		Count	GM	MAX	P90	Appd_Std	Restr_Std	Count	GM	MAX	P90	Appd_Std	Restr_Std
WD019.00	CA	28	3.9	240	16	40	230	26	3.7	43	11	40	231
WD020.00	CA	9	8.5	93	40	46	280	7	5.7	43	27	48	299
WD021.00	CA	23	6.5	93	31	40	230	20	5.3	240	31	39	227
WD022.00	CA	24	4.5	43	13	40	232	20	5.5	43	23	39	227
WD024.00	CA	25	3.6	27	9.7	40	235	20	7.1	460	58	39	227

Rainfall

To evaluate the impact of rainfall on the growing area, an assessment was completed to determine the effect of precipitation (cumulative rainfall of 0.5- 1.0 inches and 1.1 or more inches within four days of collection and on sample day, excluding flood events) on the P90 scores (Table 7). A separate assessment was done for the conditional areas during the open status (Table 8 and 9). Several prohibited stations show a rainfall impact of 0.5 inches.

Stations WD 7.5 and 8 in the Ogunquit River seasonal conditional area are impacted by 0.5 inches or more of rain, however there is very little current rainfall data for these stations during the open status. Stations WD 20 and 22 in the Webhannent River seasonal conditional area are impacted by rainfall of greater than 1 inch and stations WD 21 and 24 are impacted at 0.5 inches or more. Additional sampling targeting rainfall events during the open status should be done on this area do to the lack of current rainfall data.

Table 7. Growing area WD P90 Scores on data collected after cumulative rainfall 0.50 – 1 inches and ≥ 1.1 inches

Station	Class	Count	.5 - 1" P90	Count	≥ 1.1" P90
WD007.00	P	14	30.1	13	177.7
WD009.10	P	6	229	5	486.8
WD010.00	P	10	12.6	9	7.6
WD013.00	P	7	69.5	11	118.8
WD014.00	P	9	16.2	14	200
WD016.00	P	9	32.7	13	89.2
WD017.00	R	8	250.6	15	139.6
WD018.00	R	7	177.4	15	213.8
WD018.50	R	1	No data	No data	No data
WD028.00	P	10	5.8	7	2.8
WD031.00	P	10	60.8	7	8.5
WD032.00	P	10	29.8	7	60.9
WD033.00	P	10	50	7	48.7
WD034.00	P	9	13.2	8	14.3
WD036.00	P	10	13.2	7	48.5
WD037.00	P	10	81.2	7	71.3
WD038.00	P	10	14.4	7	8.6

Table 8. Ogunquit River P90 Scores on data collected after cumulative rainfall 0.50 – 1 inches and ≥ 1.1 inches, Open Status Nov 1 - April 30

Station	Class	Count	.5 - 1" P90	Count	≥1.1" P90
WD007.50	CA	7	115.7	7	32.3
WD008.00	CA	8	158.3	8	70.4
WD009.00	CA	8	35.2	8	65.2

Table 9. Webhannet River P90 Scores on data collected after cumulative rainfall 0.50 – 1 inches and ≥ 1.1 inches, Open Status Dec 1 - April 30

Station	Class	Count	.5 - 1" P90	Count	≥1.1" P90
WD019.00	CA	5	22.3	10	35.7
WD020.00	CA	1	No data	4	144.4
WD021.00	CA	5	54.1	9	122.4
WD022.00	CA	5	20.1	8	59.8
WD024.00	CA	5	54.1	10	28.3

Winds

Wind direction can have an impact on the water quality in an area if the wind is found to be predominantly blowing from an area associated with large concentrations of pollutants such as industries or large farming operations bordering on the shore. The Department of Marine Resources started collecting wind data in March of 2005. Using data collected from 2005-2010, the percentage of samples collected at each of the wind directions was calculated (Figure 6). The predominant wind direction is calm (18%), which is little to no wind at all. The next most common wind directions are from the south (15%), southwest (11%), and southeast (10%). The wind blew from a northerly direction (combination of north, northeast, and northwest) 22% of the time. An additional assessment was done to calculate the percentage of elevated scores associated with the various wind directions (Figure 7). Elevated scores from the south and southeast have the highest percentage of elevated scores (42.9%).

Figure 6. Growing Area WD Wind Direction Percentages

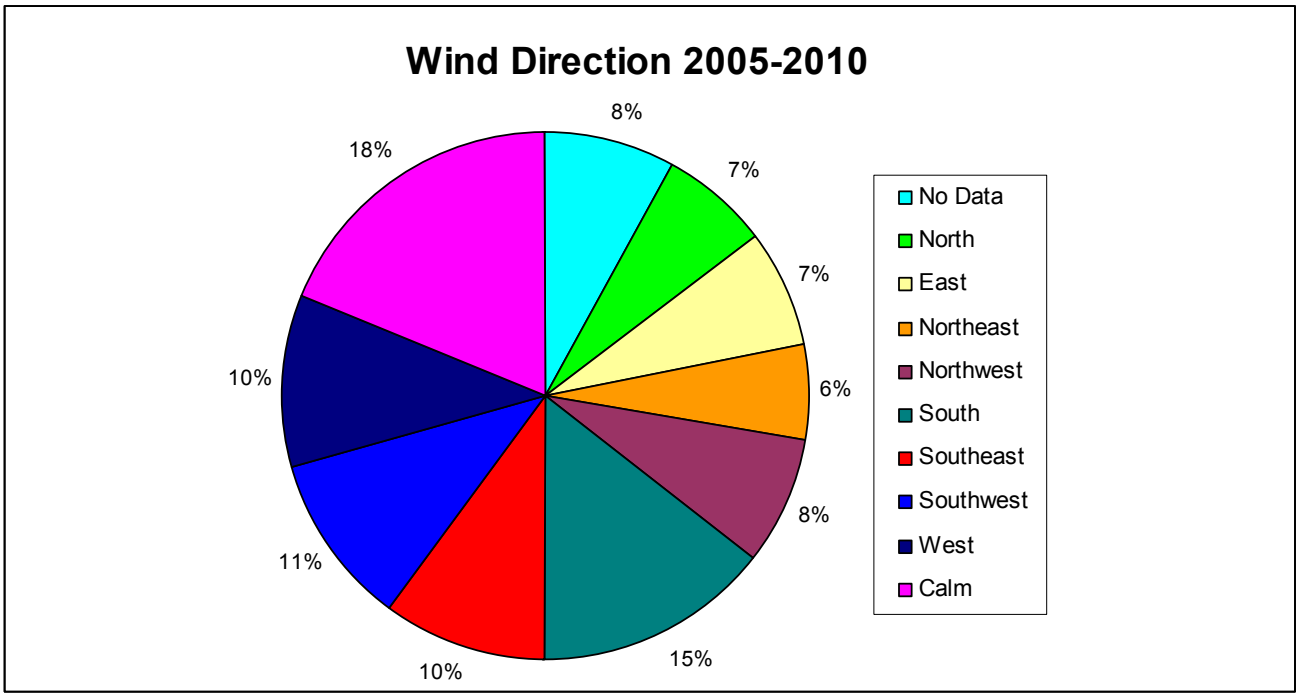
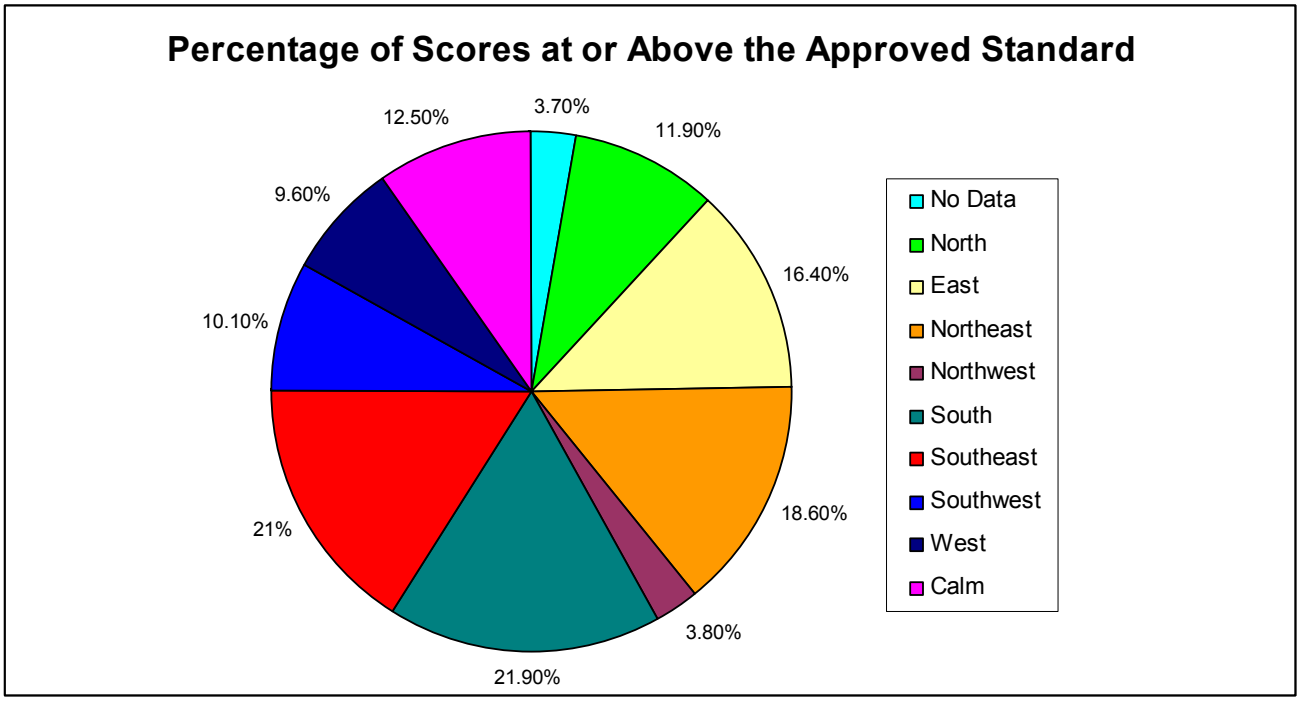


Figure 7. Growing Area WD Percentage of Samples at or Above the Approved Standard



River Discharge

There are five rivers that are incorporated into growing area WD (the Ogunquit, Webhannet, Little, Mousam, and Kennebunk River). All the rivers except the Ogunquit and Webhannet are classified as prohibited due to poor water quality or their vicinity to WWTP outfalls and OBDs. There are no river gauges maintained on any of these rivers.

Water Quality Review

Table 10 lists all active prohibited stations in Growing Area WD, with their respective Geomean and P90 calculations for 2010. Please refer to Appendix A for a key to interpreting the headers on the columns of Table 10. The approved and restricted standards for each station are also displayed in Table 10. 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 samples 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. A separate calculation was completed for the Ogunquit and Webhannet River seasonal conditional areas during the open status (Table 11 and 12).

There are some prohibited stations that currently meet the approved standard, however these stations are in the vicinity of WWTP outfalls and OBDs and will remain prohibited. Station WD 8 in the Ogunquit River seasonal conditional area exceeded the approved standard. All other conditional area stations met the approved standard during the open status.

Table 10. Geomean and P90 Scores, Growing Area WD, 2005 – 2010

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd Std	Restr Std
WD007.00	P	30	30	7.3	0.73	1100	64.7	31	163
WD009.10	P	20	20	81	0.56	1260	426	31	163
WD010.00	P	30	26	3.2	0.45	280	12.2	32	176
WD013.00	P	30	25	15	0.54	180	75.4	33	180
WD017.00	P	30	27	27	0.59	520	156	32	173
WD018.00	P	30	27	26	0.52	220	124	32	173
WD028.00	P	30	26	2.4	0.22	15	4.7	32	176
WD031.00	P	30	26	3.8	0.46	88	14.8	32	176
WD032.00	P	30	26	5.5	0.52	122	26	32	176
WD033.00	P	30	26	6.5	0.49	120	28	32	176
WD034.00	P	30	26	3.9	0.35	20	11.1	32	176
WD036.00	P	30	25	3.5	0.4	80	11.8	33	180
WD037.00	P	30	26	4.2	0.57	180	23	32	176
WD038.00	P	30	26	2.7	0.31	38	6.9	32	176

Table 11. Geomean and P90 Scores, Ogunquit River Seasonal Conditional Area, Open Status Nov 1 - April 30, 2003-2010

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD007.50	CA	30	16	5.3	0.58	520	30	38	216
WD008.00	CA	30	21	6.9	0.66	960	48.7	35	195
WD009.00	CA	30	22	5.5	0.54	124	27.6	35	191

Table 12. Geomean and P90 Scores, Webhannet River Seasonal Conditional Area, Open Status Dec 1 - April 30, 2000-2010

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD019.00	CA	30	19	3.6	0.47	240	14.7	36	203
WD020.00	CA	26	1	6.7	0.46	93	26.7	48	293
WD021.00	CA	30	19	5.2	0.5	88	23.4	36	203
WD022.00	CA	30	19	4.1	0.34	33	11.5	36	203
WD024.00	CA	30	19	5	0.62	460	32.5	36	203

All prohibited and conditionally approved stations that were active at the beginning of 2010 were sampled at least 6 times following the systematic random sampling (SRS) schedule (Table 13). Station WD20 was reactivated and therefore did not have all 6 samples in the open status.

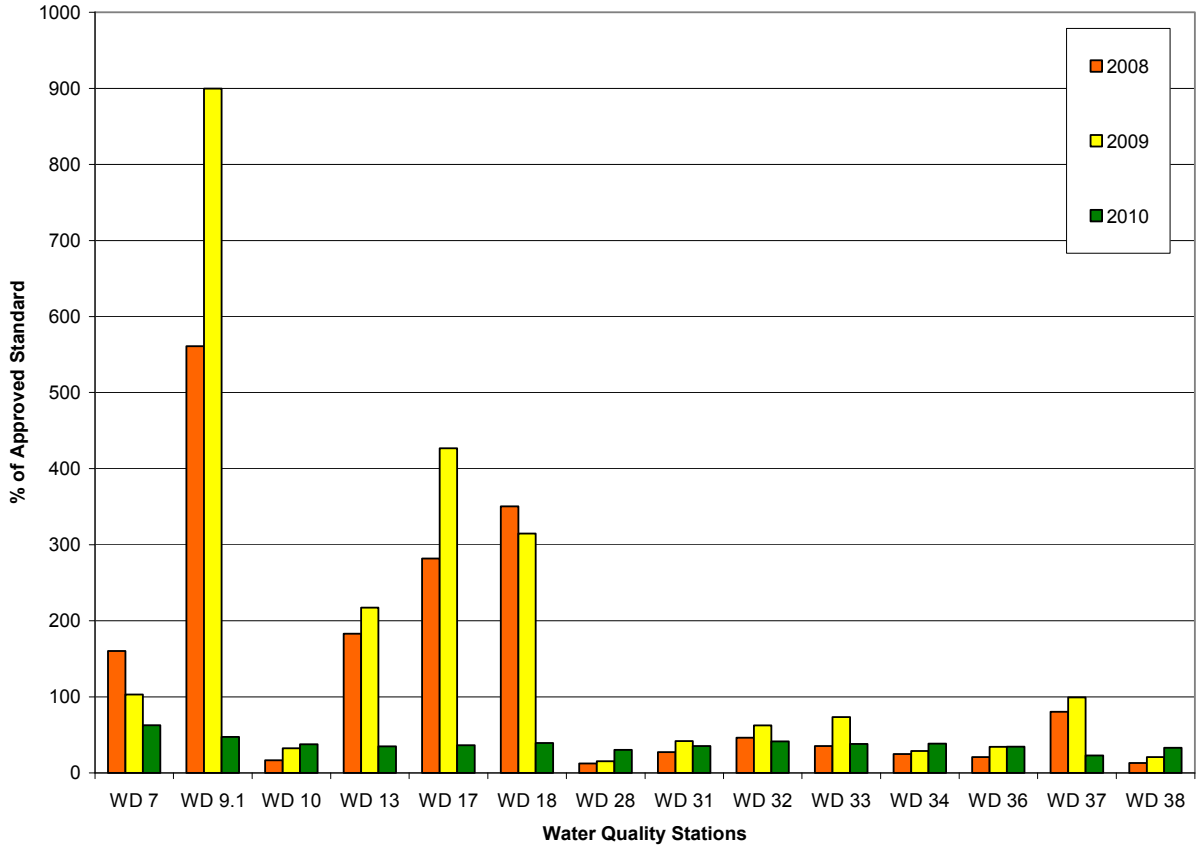
Table 13. WM Samples Collected in 2010

Station	Class	Extra	Random		Total	Comments
		Closed	Closed	Open		
WD007.00	P	1	6		7	
	CA		1	2	3	
WD007.50	P	1	5		6	
	CA		1	2	3	
WD008.00	P	1	4		5	
	CA		1	2	3	
WD009.00	P	1	5		6	
WD009.10	P	1	5		6	
WD010.00	P	1	6		7	
WD013.00	P	1	5		6	
WD014.00	P	1	7		7	
WD016.00	P	1	7		7	
WD017.00	P	1	5		6	
WD018.00	P	1	5		6	
WD018.50	P	1			1	
	CA		1		1	
WD019.00	P	1	6		7	
	CA			1	1	
WD020.00	P	1			1	
	CA			1	1	
WD021.00	P	1	6		7	
	CA			1	1	
WD022.00	P	1	6		7	
	CA			1	1	
WD024.00	P	1	6		7	
WD028.00	P		6		6	
WD031.00	P		6		6	
WD032.00	P		6		6	
WD033.00	P		6		6	
WD034.00	P		6		6	
WD036.00	P		6		6	
WD037.00	P		6		6	
WD038.00	P		6		6	

Figure 8 shows the P90 trends over the past three years, for all active stations in growing area WD. 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 2010 column on or above 100 percent does not meet the standard for its classification. Station WD 7 has shown a steady

decline in P90 scores (improved water quality) over the last three years. There are several prohibited stations that meet the approved NSSP standard, however these stations are in the vicinity of OBDs and WWTP outfalls and will remain prohibited.

Figure 8. Area WD P90 Scores for Active Stations (expressed as the percent of the approved standard), 2008-2010



Water Quality Discussion and Classification Determination

Ogunquit River

On October 1, 2007 the Ogunquit River Seasonal Conditional Areas did not open as scheduled due to water quality not meeting the approved standard at station WD 7. On December 18, 2007 the Conditional Area was reduced in size and reopened. The boundary line was moved to station WD 7.5 which met the approved standard. On February 13, 2009 all stations in the Ogunquit River Seasonal Conditional Area were reclassified to prohibited due to an expired shoreline survey.

On June 3, 2010, a sanitary survey of the Ogunquit River from Bridge St. north to Ocean St (road to walking bridge) was completed. With the exception of two properties, the Ogunquit Sewer District confirmed that all properties within 500 ft of the shore are connected to the town

sewer. There was one property outside of the 500 ft area that has a septic system and was surveyed due to an intermittent stream that runs adjacent to the property and connects to the river. There were no potential or actual problems identified at any of the properties.

In considering an upward classification upgrade for this area, a seasonal and rainfall analysis was completed to confirm the proposed open status of November 1 through April 30th. For this analysis, all data collected from 2000 through September 2010 at stations WD 7.5, 8, and 9 was considered; station WD 7 continues to exceed the approved standard during the open status, and is not being considered for an upward classification change. Tables 14 through 16 show results from all random and extra (excluding flood) samples collected between 2000 and 2010; the data points are sorted by month and by cumulative rainfall amounts; scores which exceeded the variability standard in the proposed open status are highlighted in yellow. In all tables presented in this section, 'Rain 3 Days' refers to cumulative rainfall occurring three days before sample was collected; 'Rain 4 Days' refers to cumulative rainfall 3 days prior, plus the day of collection. Prior to 2007, station WD 7.5 was not an active station; it was reactivated in 2007 to serve as a boundary station for the southern portion of the river, after WD 7.0 failed to meet its classification standard. Since 2000, station WD 7.5 has exceeded the variability standard only once during the proposed open status and this elevated score occurred after rainfall (Table 14). The geometric mean and P90 at this station meets the approved standard. Using the 30 most recent SRS and extra data points through 2010 this station has a geometric mean of 5.1, and a P90 score of 23.4. Station WD 8 exceeded the variability standard 4 times (Table 15). The most recent elevated score was in April of 2009 and did take place after rainfall. All other elevated scores were not associated with significant rainfall; however this station still meets the approved standard. Station WD 8 has a geometric mean of 6.2, and a P90 score of 27.9. Station WD 9 exceeded the variability standard 5 times since 2000 (Table 16). All elevated scores except one have occurred in the month of April, across a range of precipitation. This station currently meets the approved standard with a geometric mean of 5.4, and a P90 score of 23.8. To confirm that the data will meet the approved standard during the proposed open status for each month that the area is open to shellfish harvesting, a geometric mean was calculated for each station, and for each month; these geometric scores are noted in the last row of each of the tables 14 to 16. All stations met the approved classification geometric mean standard of 14, for each month that the area is in the open status.

Figure 9. Ogunquit River, with proposed classification

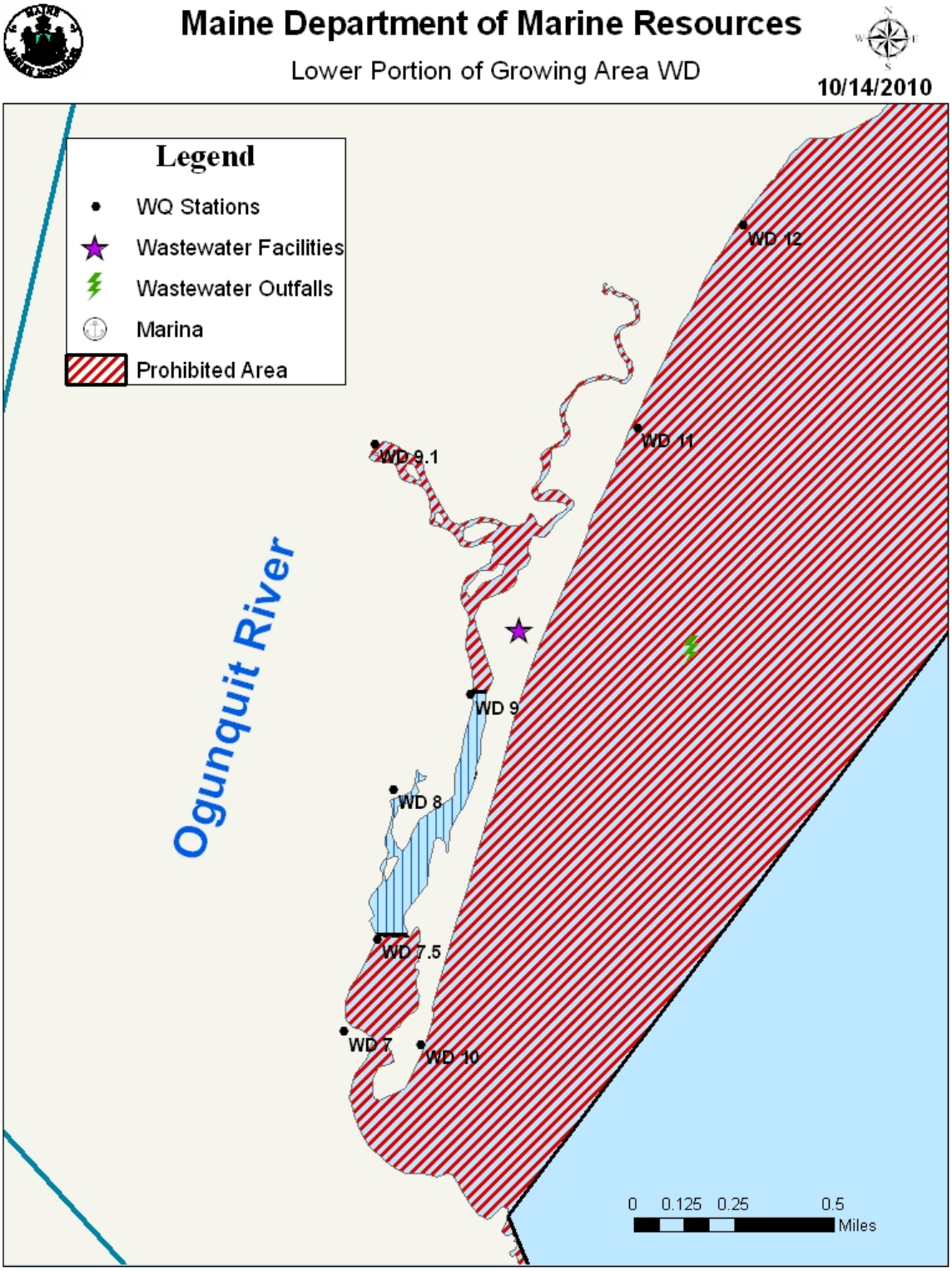


Table 14. WD 7.5, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.68	20-Mar-00	R	X	H	31			2.9									
0	0	24-Oct-00	R	X	E	30										**460**		
0	0	21-Feb-01	R	X	HE	34		2.9										
0	0	21-Mar-01	R	T	E	20			3.6									
0	0	14-Nov-01	R	X	E	32											2.9	
0	0	14-Jan-03	R	X	E	30	2.9											
0	0	18-Nov-03	R	X	L	20											15	
0	0	03-Mar-04	R	N	L	14			43									
0	0	17-Nov-04	R	X	HF	30											2.9	
0	0	08-Feb-05	R	X	HE	31		2.9										
0	0	08-Mar-05	R	PR	E	30			3.6									
0	0	07-Jan-08	R	X	HE	30	1.9											
0	0.15	10-Jun-08	R	X	E	28						15						
0	0	05-Nov-08	R	X	F	30											1.9	
0	0	09-Feb-09	R	X	E	32		1.9										
0	0.02	22-Feb-10	R	W	F	18		1.9										
0	0	14-Apr-10	R	W	F	28				1.9								
0	0	26-May-10	R	X	HF	30					4							
0	0	28-Jul-10	R	X	F	32							1.9					
0.02	0.02	21-Jan-04	R	NW	HE	32	2.9											
0.07	0.07	03-Dec-02	R	X	HE	31												2.9
0.08	0.08	24-Apr-01	R	X	F	26				9.1								
0.08	0.1	05-May-03	R	X	F	30					2.9							
0.1	0.1	12-Dec-00	R	P	H	30												23
0.1	0.1	12-May-04	R	X	L	20					**43**							
0.18	0.18	17-Jan-01	R	X	LE	21	3.6											
0.19	0.22	02-May-00	R	X	HE	30					2.9							
0.19	0.19	28-Apr-10	E	P	F	28				4								
0.3	0.3	10-Apr-02	R	N	HF	32				3.6								
0.3	0.33	07-Apr-04	R	P	F	3				2.9								

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.32	0.32	09-Jan-02	R	X	E	32	15											
0.34	0.34	12-Aug-09	R	X	F	5								**1060**				
0.35	0.81	01-Apr-08	R	P	E	27				1.9								
0.35	0.36	12-Jan-09	R	X	E	32	2											
0.36	0.66	16-Sep-08	R	X	HF	31									26			
0.37	0.38	04-Jan-05	R	T	F	3	9.1											
0.45	0.83	11-Mar-09	R	PT	H	30			12									
0.46	0.76	17-Jun-09	R	X	F	8						**64**						
0.51	0.51	03-Mar-08	R	P	E	18			1.9									
0.53	0.53	14-Aug-00	R	P	HE	19								2.9				
0.53	0.53	06-Nov-02	R	P	HF	30											93	
0.53	0.98	23-Jul-08	R	X	F	30							16					
0.55	0.67	17-Dec-01	R	X	H	32												9.1
0.55	0.75	27-Oct-03	R	P	H	31										2.9		
0.55	0.55	04-Feb-04	R	P	HE	31		2.9										
0.56	0.56	01-Dec-03	R	X	F	8												15
0.6	2	05-Feb-08	R	X	E	22		6										
0.61	0.61	08-Aug-02	R	X	E	24								**240**				
0.63	0.63	14-Apr-03	R	X	HE	30				2.9								
0.67	0.67	13-Feb-02	R	X	HF	30		2.9										
0.96	1.51	18-Oct-04	R	X	HF	30										23		
0.98	0.98	05-May-08	R	X	H	22					2							
1.06	1.06	05-Mar-02	R	X	F	12			9.1									
1.18	1.38	05-Mar-03	R	PN	HF	30			2.9									
1.2	1.2	27-Nov-00	R	P	HF	30											9.1	
1.26	1.26	29-Sep-09	R	X	HE	32									6			
1.3	1.3	08-Dec-04	R	P	E	20												23
1.48	1.48	16-Feb-00	R	W	E	30		3.6										
1.53	1.53	17-Oct-01	R	X	H	32										23		
1.53	2.03	17-Dec-07	R	PTW	F	32												2
1.57	1.58	30-Nov-09	R	X	HF	30											2	

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.59	1.59	22-Apr-09	R	X	E	6				54								
1.6	1.6	25-Apr-05	R	P	HF	31				2.9								
3.03	3.93	25-May-05	R	P	HF	20					**93**							
geomean by month							3.976	2.936	5.6	4.4	8.03	31	5.51	**90.36**	12.49	29	6.33	8.65

Table 15. WD 8, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.68	20-Mar-00	R	X	H	30			2.9									
0	0	24-Oct-00	R	X	E	30										3.6		
0	0	21-Feb-01	R	X	HE	34		2.9										
0	0	21-Mar-01	R	T	E	30			2.9									
0	0	14-Nov-01	R	X	E	32											2.9	
0	0	18-Nov-03	R	X	L	21											23	
0	0	03-Mar-04	R	X	E	13			9.1									
0	0	17-Nov-04	R	X	HF	10											9.1	
0	0	08-Feb-05	R	X	HE	31		2.9										
0	0	08-Mar-05	R	PR	E	30			2.9									
0	0	13-Feb-06	R	W	E	28		2.9										
0	0	01-Mar-06	R	W	HF	32			2.9									
0	0	19-Sep-06	R	X	E	30									10			
0	0	02-Apr-07	R	P	HF	8				16								
0	0.02	09-May-07	R	X	F	12					2							
0	0	24-Sep-07	R	X	H	32									7.3			
0	0.93	23-Oct-07	R	X	E	29										**480**		
0	0	07-Jan-08	R	X	HE	26	4											
0	0.15	10-Jun-08	R	X	E	28						29						
0	0	05-Nov-08	R	X	F	18											1.9	
0	0	09-Feb-09	R	X	E	32		1.9										
0	0	14-Apr-10	R	W	F	22				1.9								

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	26-May-10	R	X	HF	30					13							
0	0	28-Jul-10	R	X	HF	30							22					
0.01	0.01	14-Dec-05	R	X	HE	29												2.9
0.01	0.05	19-Apr-06	R	X	HF	30				2.9								
0.02	0.89	01-Oct-02	R	X	LF	25										**43**		
0.02	0.02	21-Jan-04	R	N	HE	31	3.6											
0.02	0.02	07-Nov-06	R	X	E	19											90	
0.02	0.08	12-Dec-06	R	W	F	10												8
0.06	0.06	10-Jan-06	R	N	E	25	2.9											
0.06	0.06	13-Nov-07	R	P	F	30											10	
0.07	0.07	03-Dec-02	R	X	HE	31												3
0.08	0.08	24-Apr-01	R	X	F	8				23								
0.08	0.1	05-May-03	R	X	F	20					9.1							
0.1	0.1	12-Dec-00	R	P	HF	30												6.2
0.1	0.1	12-May-04	R	X	L	12					**43**							
0.14	1.05	22-May-07	R	X	F	6					**35**							
0.18	0.18	17-Jan-01	R	X	LE	21	2.9											
0.19	0.22	02-May-00	R	X	HE	30					2.9							
0.19	0.19	28-Apr-10	E	P	F	26				1.9								
0.27	0.27	30-Nov-05	R	P	E	20											21	
0.3	0.3	10-Apr-02	R	X	H	32				2.9								
0.3	0.33	07-Apr-04	R	P	F	10				3.6								
0.32	0.32	09-Jan-02	R	X	E	29	9.1											
0.35	0.81	01-Apr-08	R	P	E	10				15								
0.35	0.36	12-Jan-09	R	W	E	32	1.9											
0.36	0.66	16-Sep-08	R	X	H	31									22			
0.37	0.38	04-Jan-05	R	T	F	3	7.4											
0.45	0.83	11-Mar-09	R	PT	H	28			4									
0.51	0.51	03-Mar-08	R	P	E	13			1.9									
0.53	0.53	06-Nov-02	R	P	H	30											15	
0.53	0.98	23-Jul-08	R	X	F	30							2					

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.55	0.67	17-Dec-01	R	X	H	32												2.9
0.55	0.75	27-Oct-03	R	P	H	31										3.6		
0.55	0.55	04-Feb-04	R	PW	HE	31		2.9										
0.56	0.56	01-Dec-03	R	X	F	8												14
0.6	2	05-Feb-08	R	X	E	6		86										
0.61	0.61	08-Aug-02	R	X	E	32								9.1				
0.63	0.63	14-Apr-03	R	X	HE	30				2.9								
0.67	0.67	13-Feb-02	R	X	H	30		2.9										
0.93	0.93	08-Jan-07	R	P	HF	30	22											
0.98	0.98	05-May-08	R	X	H	22					1.9							
1.06	1.06	05-Mar-02	R	X	F	7			23									
1.18	1.38	05-Mar-03	R	PW	HF	30			2.9									
1.2	1.2	27-Nov-00	R	P	HF	28											3.6	
1.26	1.26	29-Sep-09	R	X	E	30									24			
1.3	1.3	08-Dec-04	R	P	E	10												9.1
1.4	1.66	05-Mar-07	R	NW	F	6			42									
1.48	1.48	16-Feb-00	R	W	E	21		3.6										
1.53	1.53	17-Oct-01	R	X	H	32										9.1		
1.53	2.03	17-Dec-07	R	PTW	F	29												1.9
1.57	1.58	30-Nov-09	R	X	HF	30											3.6	
1.59	1.59	17-Jul-07	R	X	F	22							**124**					
1.59	1.59	22-Apr-09	R	X	E	6				40								
1.6	1.6	25-Apr-05	R	P	HF	21				9.1								
1.91	1.95	26-Aug-09	R	X	HE	32								2				
3.03	3.93	25-May-05	R	P	HF	15					23							
geomeans by month							4.92	4.32	5.172	6.31	9.053	29	**17.6**	4.266	**14**	**18.9**	9.18	4.84

Table 16. WD 9, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.68	20-Mar-00	R	X	H	0			2.9									
0	0	24-Oct-00	R	X	E	30										23		
0	0	21-Feb-01	R	X	E	30		3.6										
0	0	21-Mar-01	R	T	E	11			23									
0	0	14-Nov-01	R	X	E	32											3.6	
0	0	14-Jan-03	R	X	E	29	3.6											
0	0	18-Nov-03	R	X	L	20											2.9	
0	0	03-Mar-04	R	X	LE	10			15									
0	0	17-Nov-04	R	X	HF	31											2.9	
0	0	08-Feb-05	R	X	HE	31		2.9										
0	0	08-Mar-05	R	PR	HE	25			15									
0	0	13-Feb-06	R	X	E	26		10										
0	0	01-Mar-06	R	X	HF	32			3.6									
0	0	05-Jul-06	R	X	LF	19							**149**					
0	0	19-Sep-06	R	X	E	31									7.3			
0	0	02-Apr-07	R	P	HF	30				2								
0	0	24-Sep-07	R	X	H	32									8			
0	0.93	23-Oct-07	R	X	E	31										**42**		
0	0	07-Jan-08	R	X	HE	30	1.9											
0	0.15	10-Jun-08	R	X	E	28						**58**						
0	0	05-Nov-08	R	X	F	13											2	
0	0	09-Feb-09	R	X	E	31		1.9										
0	0.02	22-Feb-10	R	X	F	12		2										
0	0	14-Apr-10	R	X	F	25				2								
0	0	26-May-10	R	X	H	30					12							
0	0	28-Jul-10	R	X	HF	30							1.9					
0.01	0.01	14-Dec-05	R	X	HE	33												3
0.01	0.05	19-Apr-06	R	X	F	15				43								
0.02	0.89	01-Oct-02	R	X	L	26										23		
0.02	0.02	21-Jan-04	R	X	HE	32	3.6											

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.02	0.08	12-Dec-06	R	X	F	8												2
0.06	0.06	10-Jan-06	R	X	E	12	3.6											
0.06	0.06	13-Nov-07	R	P	F	30											4	
0.07	0.07	03-Dec-02	R	X	E	31												2.9
0.08	0.08	24-Apr-01	R	X	F	7				240								
0.08	0.1	05-May-03	R	X	F	10					3.6							
0.1	0.1	12-Dec-00	R	P	HF	30												9.1
0.1	0.1	12-May-04	R	X	LF	10					**31**							
0.14	1.05	22-May-07	R	X	F	4					6							
0.15	0.15	19-Jan-05	R	X	LF	4	9.1											
0.18	0.18	17-Jan-01	R	X	L	16	9.1											
0.19	0.22	02-May-00	R	X	HE	30					9.1							
0.19	0.19	28-Apr-10	E	PW	F	26				1.9								
0.27	0.27	30-Nov-05	R	P	E	30											43	
0.29	0.29	05-Feb-07	R	W	F	15		1.9										
0.3	0.3	10-Apr-02	R	X	H	32				3.6								
0.3	0.33	07-Apr-04	R	P	F	3				15								
0.32	0.32	09-Jan-02	R	X	E	28	23											
0.34	0.34	12-Aug-09	R	X	F	2								**1140**				
0.35	0.81	01-Apr-08	R	P	E	8				2								
0.35	0.36	12-Jan-09	R	X	E	32	2											
0.36	0.66	16-Sep-08	R	X	H	31									7.3			
0.45	0.83	11-Mar-09	R	PT	HE	30			1.9									
0.46	0.76	17-Jun-09	R	X	F	6						**70**						
0.47	0.47	10-Jul-00	R	P	E	30							15					
0.51	0.51	03-Mar-08	R	P	E	14			6									
0.53	0.53	06-Nov-02	R	P	H	29											93	
0.53	0.98	23-Jul-08	R	X	HF	30							2					
0.55	0.75	27-Oct-03	R	P	HE	30										23		
0.55	0.55	04-Feb-04	R	P	E	31		2.9										
0.56	0.56	01-Dec-03	R	X	LF	6												23

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.6	2	05-Feb-08	R	X	E	10		13										
0.61	0.61	08-Aug-02	R	X	E	30								2.9				
0.63	0.63	14-Apr-03	R	X	HE	30				2.9								
0.67	0.67	13-Feb-02	R	X	H	30		3.6										
0.93	0.93	08-Jan-07	R	P	HF	30	11											
0.96	1.51	18-Oct-04	R	X	HF	30										23		
0.98	0.98	05-May-08	R	X	H	22					1.9							
1.06	1.06	05-Mar-02	R	X	F	3			3.6									
1.18	1.38	05-Mar-03	R	P	HF	30			2.9									
1.2	1.2	27-Nov-00	R	P	HF	30											21	
1.26	1.26	29-Sep-09	R	X	E	32									2			
1.3	1.3	08-Dec-04	R	P	E	10												23
1.4	1.66	05-Mar-07	R	X	F	4			35									
1.48	1.48	16-Feb-00	R	W	E	30		9.1										
1.53	1.53	17-Oct-01	R	X	H	32										**460**		
1.53	2.03	17-Dec-07	R	PT	L	20												6
1.57	1.58	30-Nov-09	R	X	HF	30											6	
1.59	1.59	17-Jul-07	R	X	F	15							**380**					
1.59	1.59	22-Apr-09	R	X	E	0				124								
1.6	1.72	19-Dec-05	R	X	F	26												9.1
2.2	2.2	30-Oct-06	R	P	F	0										**128**		
geomean by month							5.37	3.953	6.843	8.88	7.2	**63.7**	**20**	**57.5**	5.404	49	7.92	6.8

All prohibited stations in the Ogunquit River that are part of the proposed Seasonal Conditional Area met the geometric mean and P90 standard for approved classification using SRS sample data, during the proposed open status of November 1st to April 30th (Table 17). An additional assessment was completed to determine the effect of precipitation (cumulative rainfall of 0.5 inches or more within four days of collection and on sample day, excluding flood events) on the geometric mean and P90 scores (Table 18). For this assessment, all SRS and extra data (excluding flood data) were considered. All stations continued to meet the geometric mean and P90 approved standard, using a dataset limited to rainfall data.

Table 17. Ogunquit River Geometric Mean and P90 scores, SRS Data Nov 1 – April 30

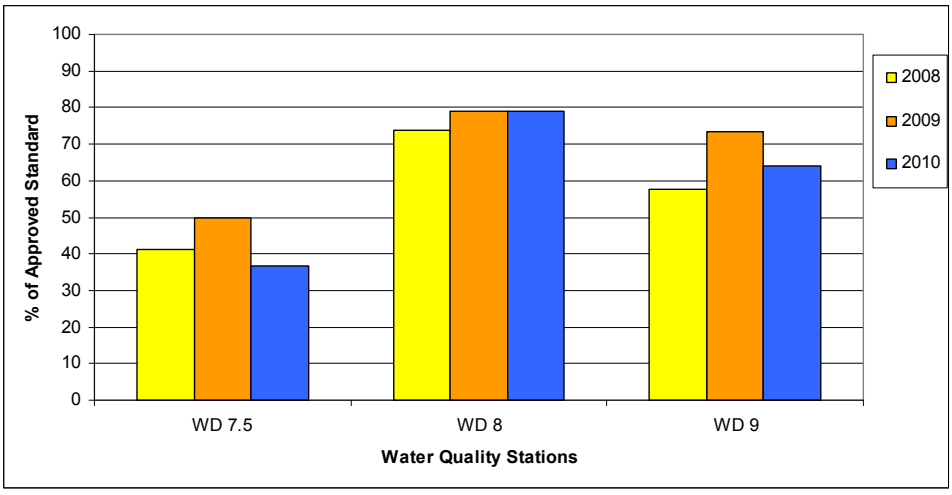
Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD007.50	P	30	15	5.1	0.51	93	23.4	38	221
WD008.00	P	30	21	6.2	0.5	86	27.9	35	195
WD009.00	P	30	22	5.4	0.5	124	23.8	35	191

Table 18. Geomean and P90 Scores on data collected after cumulative rainfall >0.50 inches

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD007.50	P	20	7	5.9	0.49	93	25.6	41	242
WD008.00	P	22	9	7.2	0.48	86	30.9	40	233
WD009.00	P	21	9	8.5	0.52	124	40.3	40	230

Figure 10 shows the P90 trends for stations WD 7.5, 8, and 9 for the past three years; data reflects the proposed open status period. Over the past three years, stations have shown little change in P90 scores.

Figure 10. Ogunquit River P90 Trends, Open Status, Nov 1 – April 30, 2008-2010



Based on the current assessment of water quality in the Ogunquit River and the completion of the required shoreline survey, this area may be reclassified from prohibited back to conditionally approved, based on season. The appropriate open status for this area is November 1 through April 30. This classification change was completed on October 15, 2010.

Webhannet River

On February 13, 2009 all stations in the Webhannet River Seasonal Conditional Area were reclassified to prohibited due to an expired shoreline survey.

On July 20, 2010 a sanitary survey of the Webhannet River in Wells was completed. The Wells Sewer District confirmed that all properties except for 16 are on public sewer. A drive through survey was done of the public sewer area and each property not on sewer was inspected. There were no potential or actual problems identified at any of the properties.

In considering an upward classification upgrade for this area, a seasonal and rainfall analysis was completed to confirm the proposed open status of January 1 through April 30th. For this analysis, all data collected from 2000 through September 2010 at stations WD 14, 16, 19, 21, 22, and 24 was considered. Tables 19 through 24 show results from all random and extra (excluding flood) samples collected between 2000 and 2010; the data points are sorted by month and by cumulative rainfall amounts; scores which exceeded the variability standard in the proposed open status are highlighted in yellow. In all tables presented in this section, 'Rain 3 Days' refers to cumulative rainfall occurring three days before sample was collected; 'Rain 4 Days' refers to cumulative rainfall 3 days prior, plus the day of collection. Since 2000, station WD 14 has exceeded the variability standard three times during the proposed open status (Table 19). The two highest scores occurred after significant rainfall. This station has a geometric mean of 6, and a P90 score of 27. Station WD 16 exceeded the variability standard 5 times during the open status (Table 20), however this station has not exceeded the variability standard since 2006. Station WD 16 has a geometric mean of 4.5, and a P90 score of 14. Station WD 19 has exceeded the variability standard 4 times (Table 21). This station has not exceeded the variability standard since 2006. Station 19 currently meets the approved standard with a geometric mean of 4.1, and a P90 score of 15. Station WD 21 has exceeded the variability standard 4 times (Table 22). This station has geometric mean of 6.5, and a P90 score of 25. Station WD 22 has exceeded the variability standard 3 times (Table 23). This station has geometric mean of 4.7, and a P90 score of 22. Station WD 24 has exceeded the variability standard 4 times (Table 24). This station has geometric mean of 5.7, and a P90 score of 30. To confirm that the data will meet the approved standard during the proposed open status for each month that the area is open to shellfish harvesting, a geometric mean was calculated for each station, and for each month; these geometric scores are noted in the last row of each of the tables 19 to 24. All stations met the approved classification geometric mean standard of 14, for each month that the area is in the open status.

Figure 11. Webhannet River, With Proposed Classification

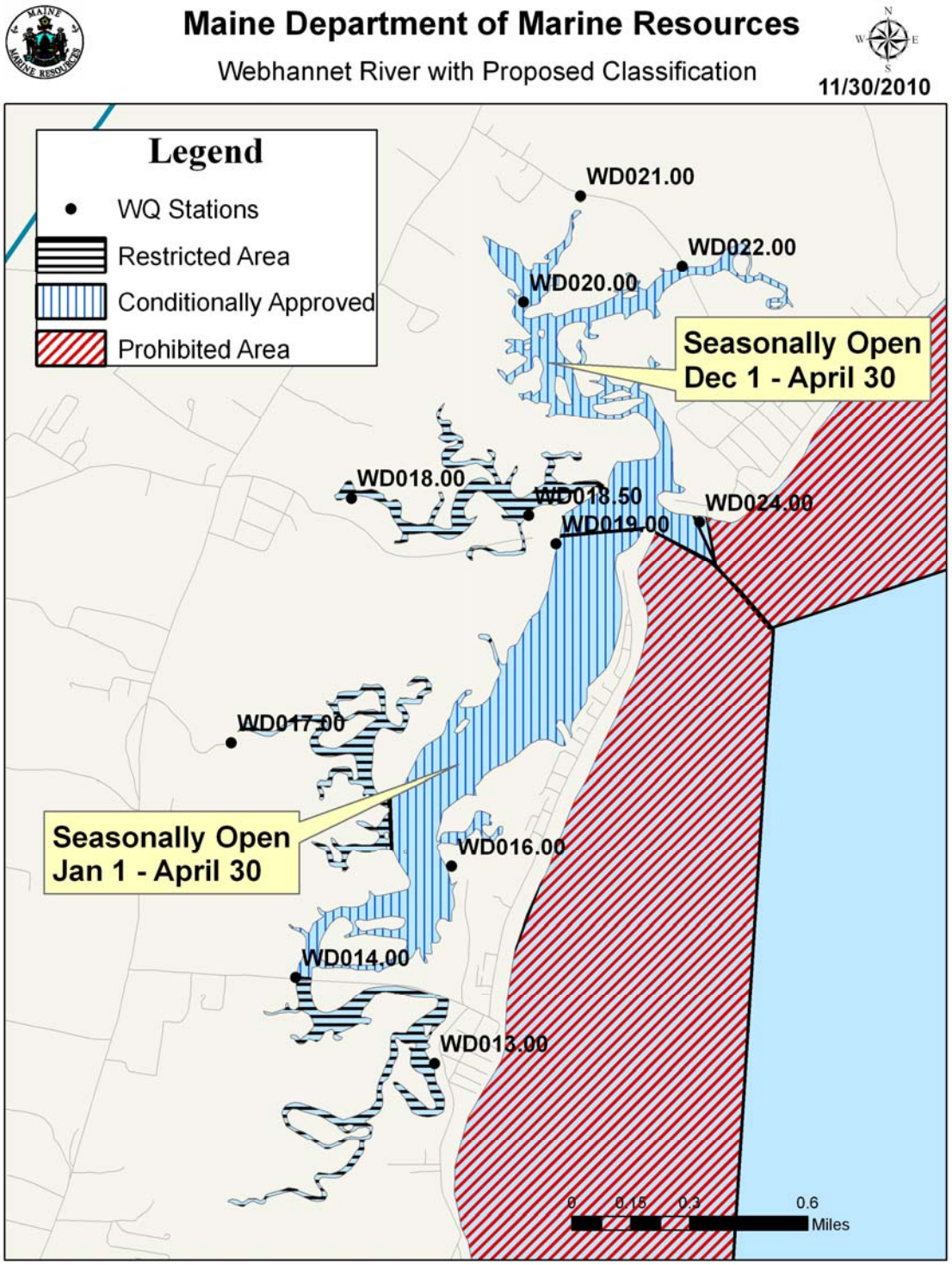


Table 19. WD 14, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.34	17-May-00	R	X	HF	30					2.9							
0	0	23-Aug-00	R	X	LF	30								9.1				
0	0	25-Oct-00	R	X	H	35										3.6		
0	0	26-Dec-00	R	X	HE	33												**43**
0	0	21-Feb-01	R	X	H	34		23										
0	0.02	09-May-01	R	X	F	29					2.9							
0	0.15	04-Dec-01	R	X	F	31												**93**
0	0.3	12-Dec-01	R	X	E	31												28
0	0	19-Mar-03	R	X	F	32			2.9									
0	0.03	11-Feb-04	R	X	L	31		3.6										
0	0	18-Feb-04	R	X	HE	32		2.9										
0	0	31-Mar-04	R	X	E	29			2.9									
0	0	09-Feb-05	R	X	H	30		2.9										
0	0	08-Mar-05	R	PR	HE	30			23									
0	0	28-Mar-05	R	P	F	30			9.1									
0	0	05-Oct-05	R	X	F	31										3.6		
0	0	13-Feb-06	R	X	F	30		3.6										
0	0	01-Mar-06	R	X	HF	32			3.6									
0	0	07-Mar-06	R	X	E	28			2.9									
0	0	05-Jul-06	R	X	E	29							11					
0	0	19-Sep-06	R	X	H	31									12			
0	0	02-Apr-07	R	P	HF	29				6								
0	0	24-Sep-07	R	X	HE	33									13			
0	0	07-Jan-08	R	X	H	30	1.9											
0	0	16-Apr-08	R	X	E	26				1.9								
0	0	05-Nov-08	R	X	F	29											1.9	
0	0	09-Feb-09	R	X	E	31		1.9										
0	0.02	22-Feb-10	R	X	F	20		2										
0	0	14-Apr-10	R	X	HF	30				1.9								

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	26-May-10	R	X	H	30					2							
0	0	28-Jul-10	R	X	H	31							1.9					
0.01	0.47	13-Mar-02	R	X	HF	30			2.9									
0.01	0.01	14-Dec-05	R	X	E	32												**93**
0.01	0.05	19-Apr-06	R	X	LF	17				23								
0.02	0.02	21-Apr-04	R	X	F	22				9.1								
0.02	0.08	12-Dec-06	R	X	L	18												**38**
0.03	0.03	02-Nov-05	R	X	HF	30											9.1	
0.06	0.06	22-Nov-04	R	X	E	32											7.3	
0.06	0.06	10-Jan-06	R	X	HE	29	3.6											
0.06	0.06	13-Nov-07	R	P	HF	30											3.6	
0.07	0.18	11-Apr-01	R	T	F	3				43								
0.14	0.14	14-Jan-04	R	X	L	29	3.6											
0.14	1.05	22-May-07	R	X	F	7					15							
0.15	0.57	10-Dec-03	R	X	HF	30												9.1
0.15	0.15	19-Jan-05	R	X	E	30	9.1											
0.19	0.19	28-Apr-10	E	P	HF	31				6								
0.26	0.26	03-Jun-08	R	X	HF	30						2						
0.29	0.69	10-Jan-01	R	X	HF	32	3.6											
0.29	0.29	05-Feb-07	R	X	F	28		4										
0.3	0.3	10-Apr-02	R	X	H	30				3.6								
0.31	0.31	15-Mar-00	R	W	E	20			2.9									
0.31	0.31	14-Jun-00	R	X	H	30						2.9						
0.32	0.32	09-Jan-02	R	P	H	32	23											
0.34	0.34	12-Aug-09	R	P	LF	12								**98**				
0.35	0.49	12-Jul-00	R	P	E	30							23					
0.35	0.35	06-Sep-00	R	X	E	31									15			
0.35	0.81	01-Apr-08	R	P	E	20				2								
0.35	0.36	12-Jan-09	R	X	E	32	1.9											
0.36	0.66	16-Sep-08	R	X	HF	32									8			
0.45	0.83	11-Mar-09	R	PT	H	32			1.9									

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.46	0.76	17-Jun-09	R	X	LF	10						18						
0.51	0.51	03-Mar-08	R	P	E	26			1.9									
0.53	0.98	23-Jul-08	R	X	F	30							9.1					
0.55	0.55	14-Mar-01	R	X	HF	32			2.9									
0.59	1.02	02-Apr-03	R	X	HE	30				2.9								
0.6	2	05-Feb-08	R	X	E	25		12										
0.61	0.61	07-Aug-02	R	X	F	30								**240**				
0.67	0.67	13-Feb-02	R	X	F	28		9.1										
0.81	1.61	05-Feb-03	R	P	HF	31		3.6										
0.84	0.84	05-Apr-00	R	X	HF	32				2.9								
0.93	0.93	08-Jan-07	R	P	HF	30	10											
1.04	1.13	15-Nov-00	R	P	F	11											**240**	
1.13	1.13	01-Dec-04	R	PN	F	25												9.1
1.22	1.22	28-Oct-02	R	P	F	12										**240**		
1.24	2.59	26-May-04	R	P	F	2					**240**							
1.26	1.26	29-Sep-09	R	P	HE	31									4			
1.37	1.56	29-Apr-03	R	X	F	30				2.9								
1.4	1.66	05-Mar-07	R	X	F	30			8									
1.43	2	28-May-03	R	P	HF	30					43							
1.48	1.48	16-Feb-00	R	N	E	32		3.6										
1.53	2.03	17-Dec-07	R	PT	LF	22												10
1.57	1.58	30-Nov-09	R	X	HF	30											2	
1.59	1.59	17-Jul-07	R	X	F	10							**340**					
1.59	1.59	22-Apr-09	R	P	E	12				34								
1.74	1.74	14-Apr-04	R	P	E	20				240								
2.56	2.61	05-Apr-06	A	P	LF	2				93								
geomean by month							4.9363	4.409	3.9145	8.835	11.729	4.709	17.16	**59.817**	9.438	**14.597**	7.7585	**27.51**

Table 20. WD 16, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.34	17-May-00	R	X	F	30					3.6							
0	0	23-Aug-00	R	X	LF	30								21				
0	0	25-Oct-00	R	X	H	34										2.9		
0	0	26-Dec-00	R	X	HE	31												**93**
0	0	21-Feb-01	R	X	H	34		2.9										
0	0.02	09-May-01	R	X	F	28					3.6							
0	0.15	04-Dec-01	R	X	F	30												23
0	0.3	12-Dec-01	R	W	E	31												2.9
0	0	19-Mar-03	R	X	F	32			3.6									
0	0	18-Feb-04	R	X	HE	32		2.9										
0	0	31-Mar-04	R	X	E	30			3.6									
0	0	09-Feb-05	R	X	HF	30		2.9										
0	0	07-Mar-05	R	X	HE	31			3.6									
0	0	23-Mar-05	R	X	HE	30			3.6									
0	0	28-Mar-05	R	P	F	30			3									
0	0	05-Oct-05	R	X	F	30										23		
0	0	13-Feb-06	R	X	F	30		3.6										
0	0	01-Mar-06	R	X	HF	32			9.1									
0	0	07-Mar-06	R	X	E	30			2.9									
0	0	05-Jul-06	R	X	E	29							23					
0	0	19-Sep-06	R	X	H	30									**40**			
0	0	02-Apr-07	R	P	HF	30				2								
0	0	24-Sep-07	R	X	HE	32									18			
0	0	07-Jan-08	R	X	H	30	1.9											
0	0	16-Apr-08	R	X	E	28				1.9								
0	0	05-Nov-08	R	X	F	27											2	
0	0	09-Feb-09	R	X	HE	32		2										
0	0.02	22-Feb-10	R	X	LF	25		1.9										

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	14-Apr-10	R	X	HF	30				1.9								
0	0	26-May-10	R	X	H	30					2							
0	0	28-Jul-10	R	X	H	30							1.9					
0.01	0.47	13-Mar-02	R	X	HF	30			3.6									
0.01	0.01	14-Dec-05	R	X	E	32												23
0.01	0.05	19-Apr-06	R	X	LF	23				43								
0.02	0.02	21-Apr-04	R	X	F	22				9.1								
0.02	0.08	12-Dec-06	R	X	L	24												**52**
0.03	0.03	02-Nov-05	R	X	HF	28											**43**	
0.06	0.06	10-Jan-06	R	W	HE	28	7.3											
0.06	0.06	13-Nov-07	R	P	HF	28											4	
0.07	0.18	11-Apr-01	R	T	F	14				43								
0.14	1.05	22-May-07	R	X	F	14					**48**							
0.15	0.57	10-Dec-03	R	X	HF	31												23
0.19	0.19	28-Apr-10	E	P	HF	29				2								
0.25	0.25	26-Dec-07	R	PT	F	28												3.5
0.26	0.26	03-Jun-08	R	X	HF	30						13						
0.29	0.29	05-Feb-07	R	X	F	30		1.9										
0.3	0.3	10-Apr-02	R	X	HF	30				9.1								
0.31	0.31	15-Mar-00	R	X	E	28			2.9									
0.31	0.31	14-Jun-00	R	X	H	29						2.9						
0.32	0.32	09-Jan-02	R	PW	H	32	3.6											
0.34	0.34	12-Aug-09	R	P	LF	18								**88**				
0.35	0.49	12-Jul-00	R	P	E	31							**43**					
0.35	0.35	06-Sep-00	R	X	E	31									2.9			
0.35	0.81	01-Apr-08	R	P	E	22				1.9								
0.36	0.42	19-Jan-00	R	N	HE	33	39											
0.36	0.66	16-Sep-08	R	X	HF	32									16			
0.45	0.83	11-Mar-09	R	PT	H	30			1.9									
0.46	0.76	17-Jun-09	R	X	LF	14						8						
0.51	0.51	03-Mar-08	R	P	E	30			4									

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.53	0.98	23-Jul-08	R	X	F	29							11					
0.55	0.55	14-Mar-01	R	X	HF	28			2.9									
0.59	1.02	02-Apr-03	R	X	H	30				2.9								
0.6	2	05-Feb-08	R	X	E	29		7.3										
0.61	0.61	07-Aug-02	R	W	F	30								**43**				
0.67	0.67	13-Feb-02	R	X	F	26		23										
0.81	1.61	05-Feb-03	R	P	F	26		9.1										
0.84	0.84	05-Apr-00	R	X	HF	25				9.1								
0.93	0.93	08-Jan-07	R	P	HF	30	9.1											
1.04	1.13	15-Nov-00	R	P	F	13											**460**	
1.13	1.13	01-Dec-04	R	PN	F	22												9.1
1.22	1.22	28-Oct-02	R	PW	F	20										**93**		
1.24	2.59	26-May-04	R	P	F	5					**93**							
1.26	1.26	29-Sep-09	R	P	H	30									27			
1.37	1.56	29-Apr-03	R	X	F	24				23								
1.4	1.66	05-Mar-07	R	X	F	21			1.9									
1.43	2	28-May-03	R	P	HF	30					9.1							
1.48	1.48	16-Feb-00	R	N	E	34		9.1										
1.57	1.58	30-Nov-09	R	X	HF	30											5.5	
1.59	1.59	17-Jul-07	R	X	F	16							**116**					
1.59	1.59	22-Apr-09	R	P	E	20				7.3								
1.74	1.74	14-Apr-04	R	P	E	22				43								
2.56	2.61	05-Apr-06	A	P	LF	4				93								
geoeman by month							7.07	4.28	3.31	8.4	10.09	6.71	19	**43**	**15.5**	**18**	**15.4**	**16**

Table 21. WD 19, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Adv	Strategy	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.34	17-May-00	X	R	HF	30					2.9							
0	0	23-Aug-00	M	R	LF	27								23				
0	0	25-Oct-00	X	R	HE	34										2.9		
0	0	26-Dec-00	X	R	HE	33												**43**
0	0	21-Feb-01	X	R	HE	34		2.9										
0	0.02	09-May-01	M	R	F	29					3.6							
0	0.3	12-Dec-01	W	R	E	31												2.9
0	0	19-Mar-03	X	R	HF	32			2.9									
0	0.03	11-Feb-04	X	R	L	30		2.9										
0	0	18-Feb-04	X	R	HE	32		3.6										
0	0	31-Mar-04	X	R	E	30			3.6									
0	0	09-Feb-05	X	R	H	31		2.9										
0	0	07-Mar-05	X	R	E	30			2.9									
0	0	23-Mar-05	X	R	HE	30			2.9									
0	0	28-Mar-05	P	R	HE	28			2.9									
0	0	05-Oct-05	X	R	HF	30										9.1		
0	0	13-Feb-06	X	R	HF	30		9.1										
0	0	01-Mar-06	X	R	H	32			2.9									
0	0	07-Mar-06	X	R	E	30			2.9									
0	0	05-Jul-06	M	R	E	30							**93**					
0	0	19-Sep-06	X	R	HE	31									6			
0	0	02-Apr-07	P	R	H	29				1.9								
0	0	24-Sep-07	X	R	HE	32									4			
0	0	07-Jan-08	X	R	H	30	1.9											
0	0	16-Apr-08	X	R	HE	30				1.9								
0	0	05-Nov-08	B	R	F	32											1.9	
0	0	09-Feb-09	X	R	HE	33		1.9										
0	0.02	22-Feb-10	X	R	LF	30		1.9										
0	0	14-Apr-10	X	R	H	30				1.9								

Rain 3	Rain 4	Date	Adv	Strategy	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	26-May-10	X	R	HE	30					4							
0	0	28-Jul-10	X	R	HE	30							1.9					
0.01	0.47	13-Mar-02	X	R	HF	30			2.9									
0.01	0.01	14-Dec-05	X	R	E	33												3.2
0.01	0.05	19-Apr-06	X	R	LF	28				3.6								
0.02	0.02	21-Apr-04	X	R	F	22				43								
0.02	0.08	12-Dec-06	X	R	L	28												29
0.03	0.03	02-Nov-05	X	R	HF	30											9.1	
0.06	0.06	22-Nov-04	X	R	E	32											2.9	
0.06	0.06	10-Jan-06	X	R	E	30	2.9											
0.06	0.06	13-Nov-07	P	R	HF	31											1.9	
0.07	0.18	11-Apr-01	TM	R	F	0				2.9								
0.1	0.11	01-May-02	X	R	LF	30					3.6							
0.14	0.14	14-Jan-04	X	R	L	32	3.6											
0.14	1.05	22-May-07	X	R	F	20					8							
0.15	0.57	10-Dec-03	X	R	H	31												9.1
0.15	0.15	19-Jan-05	X	R	E	10	43											
0.19	0.19	28-Apr-10	P	E	H	29				1.9								
0.21	0.21	30-Aug-01	X	R	HE	31								3.6				
0.26	0.26	03-Jun-08	X	R	H	30						6						
0.29	0.69	10-Jan-01	X	R	H	32	2.9											
0.29	0.29	05-Feb-07	X	R	F	32		2										
0.3	0.3	10-Apr-02	X	R	H	30				3.6								
0.31	0.31	15-Mar-00	X	R	E	28			2.9									
0.31	0.31	14-Jun-00	X	R	H	30						3.6						
0.32	0.32	09-Jan-02	P	R	HE	32	43											
0.34	0.34	12-Aug-09	PBM	R	F	24								**42**				
0.35	0.49	12-Jul-00	P	R	E	31							3.6					
0.35	0.35	06-Sep-00	M	R	E	30									23			
0.35	0.81	01-Apr-08	P	R	E	30				1.9								
0.35	0.36	12-Jan-09	X	R	E	32	1.9											

Rain 3	Rain 4	Date	Adv	Strategy	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.36	0.42	19-Jan-00	N	R	HE	33	9.1											
0.36	0.66	16-Sep-08	X	R	H	32									4			
0.45	0.83	11-Mar-09	PT	R	HE	31			1.9									
0.46	0.76	17-Jun-09	M	R	LF	21						1.9						
0.51	0.51	03-Mar-08	P	R	E	32			1.9									
0.53	0.98	23-Jul-08	B	R	F	31							4					
0.55	0.55	14-Mar-01	X	R	HF	32			2.9									
0.59	1.02	02-Apr-03	X	R	HE	30				2.9								
0.6	2	05-Feb-08	X	R	E	32		1.9										
0.61	0.61	07-Aug-02	X	R	F	30								9.1				
0.67	0.67	13-Feb-02	X	R	F	33		15										
0.7	1.4	27-Apr-05	P	R	F	12				9.1								
0.81	1.61	05-Feb-03	P	R	HF	32		2.9										
0.84	0.84	05-Apr-00	X	R	HF	31				2.9								
0.93	0.93	08-Jan-07	P	R	HF	30	28											
1.04	1.13	15-Nov-00	P	R	F	31											2.9	
1.13	1.13	01-Dec-04	PN	R	F	26												9.1
1.22	1.22	28-Oct-02	PW	R	LF	25										**93**		
1.24	2.59	26-May-04	P	R	LF	12					**43**							
1.26	1.26	29-Sep-09	P	R	HE	31									4			
1.37	1.56	29-Apr-03	N	R	HF	30				2.9								
1.4	1.66	05-Mar-07	X	R	F	32			2									
1.43	2	28-May-03	P	R	H	26					23							
1.48	1.48	16-Feb-00	N	R	E	34		3.6										
1.53	2.03	17-Dec-07	PT	R	LF	30												1.9
1.57	1.58	30-Nov-09	X	R	HF	30											1.9	
1.59	1.59	17-Jul-07	X	R	F	30							29					
1.59	1.59	22-Apr-09	P	R	E	24				4								
1.74	1.74	14-Apr-04	P	R	E	26				3.6								
2.56	2.61	05-Apr-06	P	A	LE	14				240								
geomean by month							7.2	3.3	2.7	4.5	7.38	3.4	9.4	13	6.2	13	2.8	7.8

Table 22. WD 21, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Adv	Strategy	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.34	17-May-00	X	R	H	30					2.9							
0	0	23-Aug-00	X	R	L	23								23				
0	0	25-Oct-00	X	R	HE	33										2.9		
0	0	21-Feb-01	X	R	HE	32		23										
0	0.02	09-May-01	X	R	F	3					2.9							
0	0.15	04-Dec-01	X	R	HF	31												3.6
0	0.3	12-Dec-01	X	R	E	31												2.9
0	0	19-Mar-03	X	R	HF	30			2.9									
0	0	18-Feb-04	X	R	HE	32		2.9										
0	0	31-Mar-04	X	R	E	0			2.9									
0	0	09-Feb-05	X	R	HE	29		2.9										
0	0	07-Mar-05	X	R	HE	30			2.9									
0	0	23-Mar-05	X	R	E	21			3.6									
0	0	28-Mar-05	P	R	HE	10			75									
0	0	05-Oct-05	X	R	HF	31										2.9		
0	0	13-Feb-06	X	R	HF	18		2.9										
0	0	01-Mar-06	X	R	H	32			3									
0	0	07-Mar-06	X	R	LE	5			2.9									
0	0	05-Jul-06	X	R	E	18							**93**					
0	0	19-Sep-06	X	R	HE	30									16			
0	0	18-Dec-06	X	R	HE	25												8
0	0	02-Apr-07	P	R	H	19				9.1								
0	0	24-Sep-07	X	R	E	32									**36**			
0	0	07-Jan-08	X	R	H	26	1.9											
0	0	16-Apr-08	X	R	HE	12				6								
0	0	05-Nov-08	X	R	F	20											1.9	
0	0	09-Feb-09	X	R	HE	31		4										
0	0.02	22-Feb-10	X	R	F	20		2										

Rain 3	Rain 4	Date	Adv	Strategy	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	14-Apr-10	X	R	H	28				1.9								
0	0	26-May-10	X	R	HE	30					3.6							
0	0	28-Jul-10	X	R	HE	30							6					
0.01	0.47	13-Mar-02	X	R	F	26			2.9									
0.01	0.01	14-Dec-05	X	R	E	28												23
0.01	0.05	19-Apr-06	X	R	LF	4				2.9								
0.02	0.02	21-Apr-04	X	R	F	0				2.9								
0.03	0.03	02-Nov-05	X	R	H	25											**43**	
0.06	0.06	22-Nov-04	X	R	E	19											9.1	
0.06	0.06	10-Jan-06	X	R	E	23	9.1											
0.06	0.06	13-Nov-07	P	R	H	28											2	
0.07	0.18	11-Apr-01	X	R	F	0				2.9								
0.14	1.05	22-May-07	X	R	F	12					2							
0.15	0.57	10-Dec-03	X	R	H	31												9.1
0.15	0.15	19-Jan-05	X	R	E	3	3.6											
0.19	0.19	28-Apr-10	P	E	H	28				1.9								
0.25	0.25	26-Dec-07	PT	R	HF	30												1.9
0.26	0.26	03-Jun-08	X	R	H	31						1.9						
0.29	0.29	05-Feb-07	X	R	F	15		1.9										
0.3	0.3	10-Apr-02	X	R	H	28				3.6								
0.31	0.31	15-Mar-00	X	R	LE	0			3.6									
0.31	0.31	14-Jun-00	X	R	HE	29						**43**						
0.32	0.32	09-Jan-02	P	R	HE	32	9.1											
0.35	0.49	12-Jul-00	P	R	E	23							3.6					
0.35	0.35	06-Sep-00	W	R	LE	22									9.1			
0.35	0.81	01-Apr-08	P	R	E	0				5.5								
0.35	0.36	12-Jan-09	X	R	E	23	1.9											
0.36	0.42	19-Jan-00	N	R	E	32	3.6											
0.36	0.66	16-Sep-08	X	R	H	31									28			
0.45	0.83	11-Mar-09	PT	R	HE	25			2									
0.51	0.51	03-Mar-08	P	R	E	15			2									

Rain 3	Rain 4	Date	Adv	Strategy	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.53	0.98	23-Jul-08	X	R	F	30							22					
0.55	0.55	14-Mar-01	X	R	F	27			2.9									
0.59	1.02	02-Apr-03	X	R	HE	12				2.9								
0.6	2	05-Feb-08	P	R	HE	25		10										
0.61	0.61	07-Aug-02	X	R	F	15								**43**				
0.67	0.67	13-Feb-02	X	R	F	28		9.1										
0.7	1.4	27-Apr-05	P	R	F	2				3.6								
0.81	1.61	05-Feb-03	P	R	HF	10		15										
0.84	0.84	05-Apr-00	X	R	H	22				2.9								
0.93	0.93	08-Jan-07	P	R	H	8	88											
1.04	1.13	15-Nov-00	P	R	F	14											**93**	
1.13	1.13	01-Dec-04	PN	R	F	10												23
1.22	1.22	28-Oct-02	P	R	L	0										**43**		
1.24	2.59	26-May-04	P	R	LF	0					23							
1.26	1.26	29-Sep-09	P	R	E	23									**380**			
1.37	1.56	29-Apr-03	X	R	HF	10				240								
1.4	1.66	05-Mar-07	X	R	F	18			1.9									
1.43	2	28-May-03	P	R	H	20					**43**							
1.48	1.48	16-Feb-00	N	R	E	5		15										
1.57	1.58	30-Nov-09	X	R	HF	22											7.3	
1.59	1.59	17-Jul-07	X	R	F	14							**148**					
1.59	1.59	22-Apr-09	P	R	E	0				26								
1.74	1.74	14-Apr-04	P	R	E	0				93								
1.91	1.95	26-Aug-09	X	R	HE	28								35				
2.56	2.61	05-Apr-06	P	A	F	0				9.1								
geomean by month							6.2	5.6	3.5	6.7	6.25	9	**23**	**33**	**35**	7.1	10	6.9

Table 23. WD 22, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.34	17-May-00	R	X	H	28					2.9							
0	0	23-Aug-00	R	X	L	5								23				
0	0	25-Oct-00	R	X	HE	32										2.9		
0	0	26-Dec-00	R	X	HE	30												9.1
0	0	21-Feb-01	R	X	HE	32		9.1										
0	0.02	09-May-01	R	X	F	28					2.9							
0	0.3	12-Dec-01	R	X	E	31												3.6
0	0	19-Mar-03	R	X	HF	27			2.9									
0	0.03	11-Feb-04	R	X	L	31		3.6										
0	0	18-Feb-04	R	X	E	32		2.9										
0	0	31-Mar-04	R	X	E	26			2.9									
0	0	09-Feb-05	R	X	H	30		3										
0	0	07-Mar-05	R	X	HE	30			2.9									
0	0	23-Mar-05	R	X	E	29			2.9									
0	0	28-Mar-05	R	P	HE	30			2.9									
0	0	05-Oct-05	R	X	HF	30										2.9		
0	0	13-Feb-06	R	X	HF	26		3.6										
0	0	01-Mar-06	R	X	H	30			2.9									
0	0	07-Mar-06	R	X	LE	30			2.9									
0	0	05-Jul-06	R	X	E	29							23					
0	0	19-Sep-06	R	X	HE	29									**36**			
0	0	18-Dec-06	R	X	HE	28												6
0	0	02-Apr-07	R	P	H	26				2								
0	0	24-Sep-07	R	X	E	33									10			
0	0	07-Jan-08	R	X	H	24	8											
0	0	16-Apr-08	R	X	HE	26				1.9								
0	0	05-Nov-08	R	X	F	26											8	
0	0	09-Feb-09	R	X	HE	32		12										

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.02	22-Feb-10	R	X	F	28		1.9										
0	0	14-Apr-10	R	X	H	28				1.9								
0	0	26-May-10	R	X	HE	30					1.9							
0	0	28-Jul-10	R	X	HE	32							4					
0.01	0.47	13-Mar-02	R	W	F	25			9.1									
0.01	0.01	14-Dec-05	R	X	E	29												7.3
0.01	0.05	19-Apr-06	R	X	LF	27				3.6								
0.02	0.02	21-Apr-04	R	X	F	26				2.9								
0.03	0.03	02-Nov-05	R	X	H	20											**460**	
0.06	0.06	22-Nov-04	R	X	E	30											2.9	
0.06	0.06	10-Jan-06	R	X	E	24	2.9											
0.06	0.06	13-Nov-07	R	P	H	28											1.9	
0.07	0.18	11-Apr-01	R	X	F	19				9.1								
0.14	0.14	14-Jan-04	R	X	L	32	3.6											
0.14	1.05	22-May-07	R	X	F	20					1.9							
0.15	0.57	10-Dec-03	R	X	H	31												2.9
0.15	0.15	19-Jan-05	R	X	E	2	23											
0.19	0.19	28-Apr-10	E	P	H	30				4								
0.25	0.25	26-Dec-07	R	PT	HF	26												3.6
0.26	0.26	03-Jun-08	R	X	H	30						4						
0.29	0.69	10-Jan-01	R	X	HE	31	2.9											
0.29	0.29	05-Feb-07	R	X	F	30		1.9										
0.3	0.3	10-Apr-02	R	X	H	28				3.6								
0.31	0.31	15-Mar-00	R	X	LE	25			3.6									
0.31	0.31	14-Jun-00	R	X	HE	29						3.6						
0.32	0.32	09-Jan-02	R	P	HE	32	7.3											
0.35	0.49	12-Jul-00	R	P	E	31							2.9					
0.35	0.35	06-Sep-00	R	X	LE	30									15			
0.35	0.81	01-Apr-08	R	P	E	23				2								
0.35	0.36	12-Jan-09	R	X	E	32	1.9											
0.36	0.42	19-Jan-00	R	N	E	33	9.1											

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.36	0.66	16-Sep-08	R	X	H	32									29			
0.45	0.83	11-Mar-09	R	PT	HE	26			4									
0.51	0.51	03-Mar-08	R	P	E	28			1.9									
0.53	0.98	23-Jul-08	R	X	HF	30							48					
0.55	0.55	14-Mar-01	R	X	F	24			2.9									
0.59	1.02	02-Apr-03	R	X	HE	20				2.9								
0.6	2	05-Feb-08	R	P	E	20		6										
0.61	0.61	07-Aug-02	R	X	F	20								**240**				
0.67	0.67	13-Feb-02	R	X	F	24		7.3										
0.81	1.61	05-Feb-03	R	PW	HF	14		23										
0.84	0.84	05-Apr-00	R	X	H	28				2.9								
0.93	0.93	08-Jan-07	R	P	H	20	33											
1.04	1.13	15-Nov-00	R	P	F	20											**460**	
1.13	1.13	01-Dec-04	R	PN	F	18												**43**
1.22	1.22	28-Oct-02	R	P	L	21										**460**		
1.24	2.59	26-May-04	R	P	LF	18					**150**							
1.26	1.26	29-Sep-09	R	P	E	30									**110**			
1.37	1.56	29-Apr-03	R	X	HF	20				43								
1.4	1.66	05-Mar-07	R	X	F	20			5.5									
1.43	2	28-May-03	R	P	H	25					**43**							
1.48	1.48	16-Feb-00	R	N	E	30		9.1										
1.57	1.58	30-Nov-09	R	X	H	28											3.6	
1.59	1.59	17-Jul-07	R	X	F	15							**400**					
1.59	1.59	22-Apr-09	R	P	E	21				18								
1.74	1.74	14-Apr-04	R	P	E	5				43								
1.91	1.95	26-Aug-09	R	X	HE	30								24				
2.56	2.61	05-Apr-06	A	P	F	6				23								
geomean by month							6.6	5.2	3.4	5.5	7.62	3.8	22	51	**28**	**16**	**18**	6.8

Table 24. WD 24, Seasonal and Rainfall Assessment, 2000-2010

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0.34	17-May-00	R	X	H	30					2.9							
0	0	23-Aug-00	R	X	LF	30								**43**				
0	0	25-Oct-00	R	X	HE	34										2.9		
0	0	26-Dec-00	R	X	HE	32												2.9
0	0	21-Feb-01	R	X	HE	34		2.9										
0	0.02	09-May-01	R	X	F	31					3.6							
0	0.3	12-Dec-01	R	X	E	31												3.6
0	0	19-Mar-03	R	X	HF	32			2.9									
0	0.03	11-Feb-04	R	X	L	31		9.1										
0	0	18-Feb-04	R	X	E	32		2.9										
0	0	31-Mar-04	R	W	E	30			2.9									
0	0	09-Feb-05	R	X	HE	27		2.9										
0	0	23-Mar-05	R	X	E	30			2.9									
0	0	28-Mar-05	R	P	F	30			460									
0	0	05-Oct-05	R	X	HF	31										2.9		
0	0	13-Feb-06	R	X	HF	30		23										
0	0	01-Mar-06	R	X	H	32			3.6									
0	0	07-Mar-06	R	X	LE	30			2.9									
0	0	05-Jul-06	R	X	E	30							3.6					
0	0	19-Sep-06	R	X	HE	31									1.9			
0	0	02-Apr-07	R	P	H	29				1.9								
0	0	24-Sep-07	R	X	E	33									1.9			
0	0	07-Jan-08	R	X	H	30	1.9											
0	0	16-Apr-08	R	X	HE	30				1.9								
0	0	05-Nov-08	R	B	F	32											1.9	
0	0	09-Feb-09	R	X	HE	31		2										
0	0.02	22-Feb-10	R	X	LF	30		1.9										
0	0	14-Apr-10	R	X	H	30				1.9								

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	26-May-10	R	X	HE	30					1.9							
0	0	28-Jul-10	R	X	HE	32							1.9					
0.01	0.47	13-Mar-02	R	X	HF	32			2.9									
0.01	0.01	14-Dec-05	R	X	E	32												2.9
0.01	0.05	19-Apr-06	R	X	LF	28				2.9								
0.02	0.02	21-Apr-04	R	X	F	26				3.6								
0.02	0.08	12-Dec-06	R	X	LF	29												**60**
0.03	0.03	02-Nov-05	R	X	H	30											9.1	
0.06	0.06	22-Nov-04	R	X	E	32											2.9	
0.06	0.06	10-Jan-06	R	X	E	30	2.9											
0.06	0.06	13-Nov-07	R	P	H	31											1.9	
0.07	0.18	11-Apr-01	R	X	F	17				2.9								
0.14	0.14	14-Jan-04	R	X	LE	32	9.1											
0.14	1.05	22-May-07	R	X	LF	22					8							
0.15	0.57	10-Dec-03	R	X	HE	31												2.9
0.15	0.15	19-Jan-05	R	X	LE	30	23											
0.19	0.19	28-Apr-10	E	P	HE	30				1.9								
0.26	0.26	03-Jun-08	R	X	H	30						2						
0.29	0.69	10-Jan-01	R	X	H	32	2.9											
0.29	0.29	05-Feb-07	R	W	F	32		2										
0.3	0.3	10-Apr-02	R	X	H	30				2.9								
0.31	0.31	15-Mar-00	R	X	LE	25			2.9									
0.31	0.31	14-Jun-00	R	X	HE	30						23						
0.32	0.32	09-Jan-02	R	P	HE	32	93											
0.34	0.34	12-Aug-09	R	P	F	28								16				
0.35	0.49	12-Jul-00	R	P	LE	31							2.9					
0.35	0.35	06-Sep-00	R	X	LE	31									2.9			
0.35	0.81	01-Apr-08	R	P	E	28				1.9								
0.35	0.36	12-Jan-09	R	X	E	32	1.9											
0.36	0.42	19-Jan-00	R	N	E	33	2.9											
0.36	0.66	16-Sep-08	R	X	H	32									2			

Rain 3	Rain 4	Date	Strategy	Adv	Tide	Sal	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.45	0.83	11-Mar-09	R	PT	HE	32			27									
0.46	0.76	17-Jun-09	R	X	F	24						2						
0.51	0.51	03-Mar-08	R	P	E	32			1.9									
0.53	0.98	23-Jul-08	R	B	HF	30							2					
0.55	0.55	14-Mar-01	R	X	HF	32			3.6									
0.59	1.02	02-Apr-03	R	X	E	30				2.9								
0.6	2	05-Feb-08	R	P	E	32		2										
0.61	0.61	07-Aug-02	R	X	F	30								**43**				
0.67	0.67	13-Feb-02	R	X	HF	33		9.1										
0.7	1.4	27-Apr-05	R	P	F	30				9.1								
0.81	1.61	05-Feb-03	R	P	HF	33		2.9										
0.84	0.84	05-Apr-00	R	X	HF	31				2.9								
0.93	0.93	08-Jan-07	R	P	H	32	52											
1.04	1.13	15-Nov-00	R	P	F	31											3.6	
1.13	1.13	01-Dec-04	R	P	F	32												23
1.22	1.22	28-Oct-02	R	P	LF	27										23		
1.24	2.59	26-May-04	R	P	LF	14					**43**							
1.26	1.26	29-Sep-09	R	P	E	32									2			
1.37	1.56	29-Apr-03	R	X	HF	30				2.9								
1.4	1.66	05-Mar-07	R	X	F	32			1.9									
1.43	2	28-May-03	R	P	H	30					3.6							
1.48	1.48	16-Feb-00	R	N	E	34		3.6										
1.53	2.03	17-Dec-07	R	PT	LF	30												4
1.57	1.58	30-Nov-09	R	X	H	30											2	
1.59	1.59	17-Jul-07	R	X	F	30							1.9					
1.59	1.59	22-Apr-09	R	PD	E	24				4								
1.74	1.74	14-Apr-04	R	P	E	31				2.9								
2.56	2.61	05-Apr-06	A	P	LF	13				93								
geomean by month							7.6	3.7	5.1	3.5	5.39	4.5	2.4	**31**	2.1	5.8	3	6.5

At the end of 2010, all prohibited stations in the Webhannet River that are part of the proposed Seasonal Conditional Area met the geometric mean and P90 standard for approved classification using SRS sample data, during the proposed open status of December 1st – April 30th for the upper potion of the river and January 1st to April 30th for the lower portion of the river (Tables 25 and 26). An additional assessment was completed to determine the effect of precipitation (cumulative rainfall of 0.5 inches or more within four days of collection and on sample day, excluding flood events) on the geometric mean and P90 scores (Table 27 and 28). For this assessment, all SRS and extra data (excluding flood data) were considered. All stations, except station WD 21, continued to meet the geometric mean and P90 approved standard, using a dataset limited to rainfall data.

Table 25. Upper Portion of the Webhannet River Geometric Mean and P90 scores, SRS Data Dec 1 – April 30

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD019.00	P	30	14	4.1	0.42	43	15	39	225
WD020.00	P	27	1	6.5	0.45	93	25	48	293
WD021.00	P	30	14	6	0.53	93	29	39	225
WD022.00	P	30	14	4.7	0.4	43	16	39	225
WD024.00	P	30	8	5.7	0.56	460	30	43	254

Table 26. Lower Portion of the Webhannet River Geometric Mean and P90 scores, SRS Data Jan 1 – April 30

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD014.00	CA	7	0	6	0.49	43	27	48	299
WD016.00	CA	30	10	4.5	0.38	43	14	42	244
WD019.00	CA	30	11	3.6	0.38	43	11	41	239

Table 27. Geomean and P90 Scores on data collected after cumulative rainfall >0.50 inches for the Upper Portion of the Wehannet River

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD019.00	CA	58	19	4.3	0.45	240	16.7	42	245
WD020.00	CA	26	1	6.7	0.46	93	26.7	48	293
WD021.00	CA	55	19	5.7	0.5	240	25.7	41	242
WD022.00	CA	57	19	5.1	0.38	43	15.9	42	244
WD024.00	CA	57	19	4.8	0.52	460	22.3	42	244

Table 28. Geomean and P90 Scores on data collected after cumulative rainfall >0.50 inches for the Lower Portion of the Wehannet River

Station	Class	Count	MFCount	GM	SDV	MAX	P90	Appd_Std	Restr_Std
WD014.00	CA	47	16	5.4	0.48	240	22.4	41	243
WD016.00	CA	44	15	5.2	0.45	93	20.2	41	243
WD019.00	CA	50	16	3.9	0.44	240	14.6	42	246

Figure 12 and 13 show the P90 trends for stations WD 14, 16, 19, 20, 21, 22, and 24 for the past three years; data reflects the proposed open status period. There is no data for station WD 20 because this station was just reactivated on November 4, 2010.

Figure 12. Upper Webhannet River P90 Trends, Open Status, Dec 1 – April 30, 2008-2010

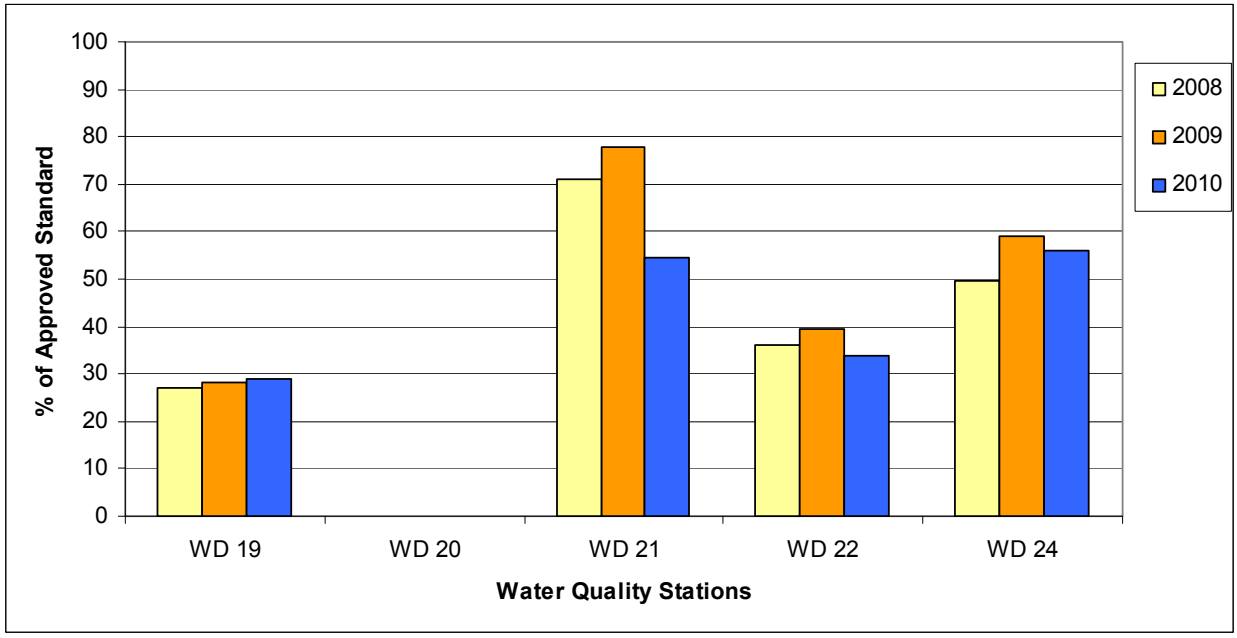
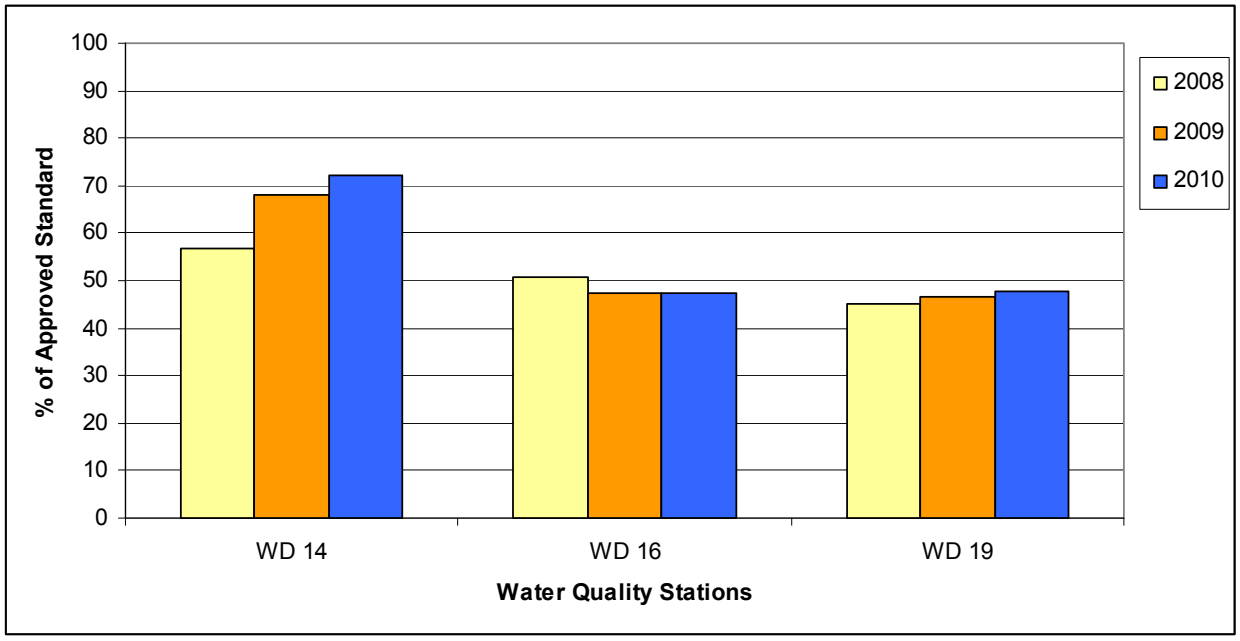


Figure 13. Lower Webhannet River P90 Trends, Open Status, Jan 1 – April 30, 2008-2010



Based on the current assessment of water quality in the Webhannet River and the completion of the required shoreline survey, this area may be reclassified from prohibited back to conditionally approved, based on season. The appropriate open status for this area is January 1 through April 30 for the lower portion of the river, and December 1 through April 30 for the upper portion of the river. This classification change was completed on November 30, 2010.

Aquaculture/Wet Storage Activity

There are no active aquaculture lease sites or wet storage sites in shellfish growing area WD

Recommendation for Future Work

The following work is recommended to be completed prior to the next Triennial Review in 2013:

1. Collection of stream samples that have the potential to impact the seasonal conditional areas in the Ogunquit and Webhannet Rivers.
2. Rainfall data for the seasonal conditional areas.

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References

Rachel Carson National Wildlife Refuge, http://www.fws.gov/northeast/rachelcarson/

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.