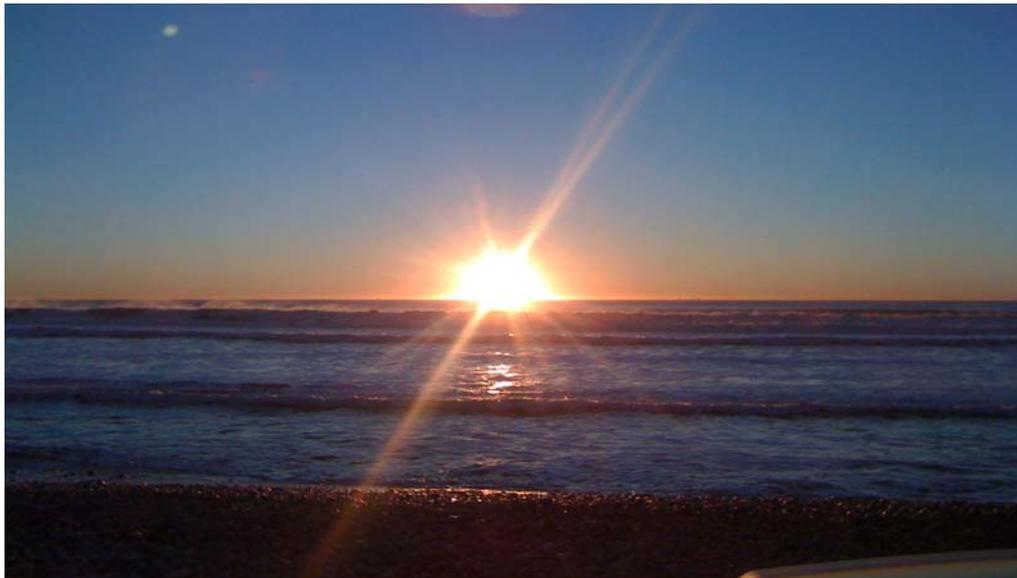




# **RHODE ISLAND DEPARTMENT OF HEALTH BEACH PROGRAM**

## **2011 Season Report**



**March 2012**

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## **Executive Summary**

The Rhode Island Department of Health (HEALTH) is responsible for the licensing and regulation of bathing beach facilities in the State of Rhode Island. This includes both fresh and saltwater beaches. Funding for the beach Program is provided by the United States Environmental Protection Agency (USEPA). These funds support primary Beach Program activities which include: sanitary surveys, development and implementation of a risk-based monitoring plan, bacteriological testing at marine beaches, and a public notification system. Currently, the USEPA does not provide funds to monitor freshwater bathing beaches. Freshwater beach managers are responsible for sampling and following HEALTH approved regulations.

From May 27, 2011 through September 5, 2011, approximately 1908 samples were collected by HEALTH from all 70 licensed saltwater beaches. Samples were analyzed for Enterococci bacteria as required in the Federal Beaches Environmental Assessment and Coastal Health (BEACH) Act.

The 2011 bathing season showed a decrease in saltwater beach closure events and an increase in closure days from the 2010 season. Whereas 2010 exhibited 45 closure events resulting in 70 beach closure days; 2011 saw 36 closure events and 74 beach closures days. Total volume of rainfall over the beach season was higher during the summer of 2011 (May 27 through September 5) than the summer of 2010. Total rainfall increased from 13.42 inches in 2010 to 14.80 inches in 2011. Significant rainfall instances (> 0.50 inches in a 24-hour period) decreased in 2011, with 11 instances in 2010 and 9 instances in 2011.

It should be noted, funding for the beach program supports efforts at licensed saltwater facilities only. Although freshwater facilities are required to collect samples to ensure public health, the beach program can not assist with these efforts or the identification and elimination of sources of contamination. While the success of the program can be seen across the state at saltwater beaches, freshwater beaches continue the need for additional funding and support.

## 1.0 PROGRAM STANDARDS

### *1.1 Mission*

The mission of the Rhode Island Department of Health (HEALTH) is to prevent disease and to protect and promote the health and safety of the people of Rhode Island. Within the Department, the Beach Program works to protect the public from illness associated with swimming in contaminated bathing waters and furthers this mission by assisting beach owners and managers with finding and eliminating sources of contamination.

### *1.2 History*

HEALTH began monitoring beaches in the summer of 1995. Prior to 1995, the Rhode Island Department of Environmental Management (RIDEM) was responsible for monitoring beaches. All beach facilities monitored under this program are licensed as Recreational Facilities by HEALTH.

A “bathing beach” is defined by HEALTH as a natural area or tract of land that is used in connection with swimming and/or bathing in any waters of the state provided:

- a) It is open to the public by permit and/or payment of a fee; or
- b) It is maintained as a private club or association requiring membership fees or dues; or
- c) It is maintained with or without charge for the recreation of groups of ten (10) or more children.

#### **HEALTH recommends only swimming at licensed bathing beach facilities.**

Licensing of recreational facilities requires facilities to have electrical service; refuse storage and disposal; sewage disposal facilities; adequate toilets, showers, or lavatories with hot and cold running water; a drinkable water supply; and the water adjacent to a bathing beach must meet bacteriological standards. Reference to these requirements can be found within the General Laws of Rhode Island, included in **Appendix A**.

In 1999, development of a comprehensive beach-monitoring program began under a USEPA Environmental Monitoring for Public Access and Community Tracking (EMPACT) Grant titled Bacterial Water Quality Monitoring at Upper Narragansett Bay Bathing Beaches. This grant enabled HEALTH to establish a public notification system including a website, telephone hotline, and beach signage system. HEALTH also evaluated conditions in Upper Narragansett Bay, which has long been impacted by urban runoff, point source discharges, and combined sewer overflows (CSOs).

The EMPACT Program provided HEALTH with the resources to sample 23 stations in the Upper Narragansett Bay in wet and dry weather. The conclusion of this study determined that additional sampling was needed at the licensed Upper Bay beaches to adequately protect the public. Also, the areas north of Conimicut Point in Warwick and Nayatt Point in Barrington were deemed unsuitable for licensing.

In 2000, Congress enacted the Beaches Environmental Assessment and Coastal Health (BEACH) Act, an amendment to the Federal Water Pollution Control Act (a.k.a. The Clean Water Act). This act authorizes USEPA to distribute grants to eligible states, territories, and tribes to reduce the risk of disease and illness in the nation’s bathing waters. State objectives under this program were published by the USEPA in June 2002. The National Beach Guidance and Required Performance Criteria for Grants document outlines several requirements of the BEACH Act which include: a tiered categorization of beaches according to

risk, identification and mitigation of pollution sources, a risk communication plan, and specific beach monitoring information.

Since 2000 the USEPA has provided HEALTH with over \$2 million in beach grants to manage Rhode Island's Beach Program. These grants have provided HEALTH the resources to vastly improve the Beach Program and to develop a broad base of knowledge regarding Rhode Island's monitored beaches.

### ***1.3 Program Staff***

The Beach Program consists of two full time employees, a Beach Program Coordinator and a Beach Program Assistant. The Beach Program is designated under the Office of Food Protection. As a result the Chief of the Office of Food Protection and Chief Environmental Health Food Specialist provide additional oversight and coordination.

Five interns are hired during the summer months to assist with various aspects of the Program. Three interns are designated as beach water samplers. These students collect samples at the beaches daily and complete bathing beach surveys based on a risk classification tier. After samples have been collected and submitted to the laboratory the samplers enter in their daily observations from the beaches. A copy of the Daily Bathing Beach Survey has been included in **Appendix B**. In addition, two interns are stationed in the Sanitary Microbiological Laboratory and handle all necessary set-up/prep of sample containers as well as sample analysis.

### ***1.4 Funding***

During the 2011 beach season, EPA provided HEALTH with \$215,000 for the Beach Program. These funds support primary activities which include: sanitary surveys to identify risk and potential sources of fecal contamination at beaches; development and implementation of a risk- based monitoring plan; and bacteriological testing at saltwater beaches.

### ***1.5 Standards***

RIDEM and USEPA set Rhode Island's recreational use water quality standards which states: saltwater bathing waters must not exceed a single sample standard of 104 Enterococci per 100 milliliters (mL) of water.

Currently, HEALTH uses the IDEXX Enterolert™ method to enumerate Enterococci. Enterolert™ provides HEALTH a range of Enterococci from <10 to >24,192 MPN/100ml. Rapid testing methods are expected from EPA around October 2012. Quantitative Polymerase Chain Reaction (qPCR) testing will provide a six hour result assisting in timely notification and effective beach management.

### ***1.6 Performance Criteria***

EPA has developed nine performance criteria for the implementation of monitoring, assessment and notification programs. To be eligible for a grant to implement a monitoring and notification program, the state, tribal, or local government's program must be consistent with these performance criteria. The performance criteria also applies to federal agency programs and programs directly implemented by EPA. These performance criteria are based on and incorporate other requirements of the BEACH Act<sup>3</sup>. The nine performance criterions for the beach program are as follows:

### **1. Risk-Based Beach Evaluation and Classification Plan (Criterion 1)**

Establishment of a risk-based beach evaluation and classification plan to evaluate and classify risk at Rhode Island's licensed facilities. Facilities have been identified by the Beach Program as coastal recreational waters and bathing beaches throughout the state. Beach evaluations, sanitary surveys and water quality evaluations were conducted to determine risk.

### **2. Tiered Monitoring Plan (Criterion 2)**

To develop a tiered monitoring plan HEALTH identified the following factors: period and extent of use, frequency of monitoring needed, location of monitoring, methods to be used, and assessment procedures for short term increases in pathogen indicators. The Rhode Island Beach Program will be re-evaluating its tiered plan due to significant improvements over the past few years.

### **3. Monitoring Report Submission (Criterion 3)**

HEALTH must submit all beach monitoring data to EPA. Currently, HEALTH submits information annually through EPA's Central Data Exchange (CDX). To collect and submit this information HEALTH employs a web-based data manager (Garrison Enterprises).

### **4. Methods and Assessment Procedures (Criterion 4)**

HEALTH has established methods and assessment procedures to assess levels of pathogen indicators. Currently, HEALTH uses the IDEXX Enterolert™ method to enumerate Enterococci. Enterolert™ provides HEALTH a range of Enterococci from <10 to >24,192 MPN/100ml.

### **5. Public Notification and Risk Communication Plan (Criterion 5)**

HEALTH's public notification plan includes: an official beach sign program, 24-hour telephone hotline, publicly accessible website, and daily media releases. The purpose of this plan is to quickly notify the public of potential risk associated with swimming in contaminated bathing waters. HEALTH will be implementing an interactive map viewer to provide data and notification information to the public.

### **6. Measures to Notify EPA and Local Governments/Beach Managers (Criterion 6)**

Criterion to notify the EPA of all beach closures and openings through HEALTH's web-based management system has been established. Every time a beach is opened and/or closed a press release will be emailed to the EPA Region 1 contact. Furthermore, EPA will receive an end of season report containing all violations and closures.

Beach managers will be notified immediately by telephone once a decision to close the facility has been made. The beach manager/operator will inform facility staff and bathers and post closure notification signs. Beach managers and local governments will receive an emailed press release as part of the closure notice distribution.

### **7. Measures to Notify the Public (Criterion 7)**

HEALTH utilizes several methods to notify the public of beach closures including: a 24-hour telephone hotline, daily updated website, closure sign system at all licensed beaches and a standard format press release.

## **8. Notification Report Data Submission Plan (Criterion 8)**

The BEACH Program requires HEALTH to submit all beach notification data to EPA. Currently, HEALTH submits information annually through EPA's Central Data Exchange (CDX). To collect and submit this information HEALTH employs a web-based data manager (Garrison Enterprises).

## **9. Public Evaluation of Program (Criterion 9)**

During the development of the Beach Program HEALTH conducted two public comment periods. First EPA, DEM and all licensed beach managers were given the opportunity to evaluate the sanitary survey procedures. Comments were used to better classify risk at licensed bathing beaches in Rhode Island. Second, the public was given an opportunity to comment on monitoring and public notification plans. Notices were sent out to all licensed beaches. An online notification was given for an informal public hearing to be held at HEALTH. Following the hearing, the public were given additional time to comment electronically or in writing.

During the 2008 beach season, a marketing intern from the Bryant College of Business assisted HEALTH in a program evaluation. The evaluation assisted the Beach Program to more efficiently serve the needs of the public and provide a higher level of customer satisfaction and service to beach owners. Extensive research was used to track program performance in providing effective monitoring information and helpful support throughout the summer season.

The Beach Program has also instituted an annual beach season kick-off meeting. This is a chance for beach managers, laboratories, and other stakeholders to meet to go over the operation and requirements of the Beach Program. Questions are asked and discussion takes place to ensure everyone is in agreement of operational procedures and requirements.

## **2.0 FLAGSHIP BEACHES**

USEPA defines flagship beaches as high-use beaches selected for targeted attention. Beaches were designated based on three criteria: a history of closures; extended periods of poor water quality; and service to a diverse socioeconomic user group. During the 2002 season, Goddard Park in Warwick, Warren Town Beach in Warren, and King Park Swim Area in Newport were designated as Rhode Island's Flagship Beaches. As a result of the closure of King Park Swim Area in 2004 by the City of Newport, Scarborough State Beach in Narragansett was designated as a flagship beach.

### **2.1 Greenwich Bay**

Beaches located in the City of Warwick accounted for the largest percentage of closures by town over the last several years. From 2010 to 2011, closures in Warwick increased from 20 to 33 closure days and from 11 to 14 closure events, as rainfall increased from 13.42 inches to 14.80 inches. The increase in closure days may be attributed to the increased precipitation.

In 2011, the City of Warwick continued their efforts with connecting homes in Greenwich Bay to municipal sewer systems. Approximately eight thousand connections have been made since the beginning of the project. These connections are also attributed to the decreasing trend in beach closures.

## **2.2 Easton's and Atlantic Beach Club**

In 2011, the City of Newport again granted money to a local Aquidneck Island volunteer organization, Clean Ocean Access (COA), to continue sampling Easton's Beach year round. This study is unique since HEALTH does not sample any of Rhode Island's beaches during the off-season. The City of Newport agreed to pay for sample analysis from January through December and COA agreed to provide all necessary manpower.

In the summer of 2009, Easton's Beach began using a seaweed harvester to remove excess seaweed from the waterline. In 2011, approximately 799.18 tons of seaweed was removed from the beach. Removal has resulted in reduced beach closures and improved the aesthetic value of the facility.

### *2.2.1 City of Newport Ultra Violet Treatment System*

The City of Newport has also invested in an Ultra Violet (UV) Disinfection System to treat water that discharges onto the beach from the Easton Moat. This water has been the source of contamination from Enterococci bacteria leading to beach closures. The system construction was started in 2010 and was completed in the 2011 beach season.

The Beach program has worked with the City of Newport and many other agencies on a \$6 million Ultra Violet Treatment system to reduce bacteria levels from storm water that discharges at the beach. During system operation bacteria levels were monitored from influent, effluent, and stream locations depicted in **Appendix C**. The system was operation in time for the 2011 beach season; however the relocation of a storm drain was not completed until August 1, 2011. The system activates when  $\geq 0.25''$  of precipitation occurs within a 24-hour period.

Monitoring results were reported to the Beach Program for system operations within the 2011 beach season. Monitoring results reported 100% of influent samples exceeded EPA standards, verifying the need for the system. The system is successful with nearly all effluent samples reporting below EPA standards. However, only 50% of stream samples are below EPA standards indicating another source of contamination between the system and the beach. Easton's UV Treatment System 2011 Data are included in **Appendix D**.

The Beach Program looks forward to the 2012 beach season when the system will be fully operational. The Beach Program will continue to work with the City of Newport to find and eliminate sources of contamination at Easton's Beach.

## **3.0 2011 DATA SUMMARY**

### *3.1 Sample Results*

The number of samples collected by HEALTH has increased from 281 in 1995 to 1,908 in 2011. Beach Owners and Managers and non-profit groups under Beach Program guidance collected additional saltwater samples. The number of facilities tested has increased from 82 in 1997 to 122 in 2011, 70 of which are saltwater beaches.

### 3.2 Closures

During the 2011 beach season there were 37 recorded closure events totaling 74 closure days. This represents a 17.78% decrease in closure events from the 2010 bathing season when there were 45 closure events totaling 70 closure days. Closure events have continued to decrease since 2009 despite an increase in precipitation. A summary of beach closures is included in the **Appendix E** – Closure Evaluation Spreadsheet. Detailed information regarding beach closures can be found in **Appendix F** - 2011 Coastal Beaches Action Summary. Total rainfall increased to 14.80 inches in 2011 from 13.42 inches in 2010. Also, significant rainfall events (greater than 0.5 inches) decreased from 11 in 2010 to 9 in 2011. The Beach Program tracks all meteorological data including tidal and lunar cycles at eleven major weather stations throughout the state. This information is included in **Appendix G** – 2011 Meteorological Data. This data was used to track precipitation, air/water temperatures and wind direction/speed.

Table 1 contains data regarding closure events and days for each saltwater beach that was in 2011.

**Table 1. 2011 Saltwater Beach Closures**

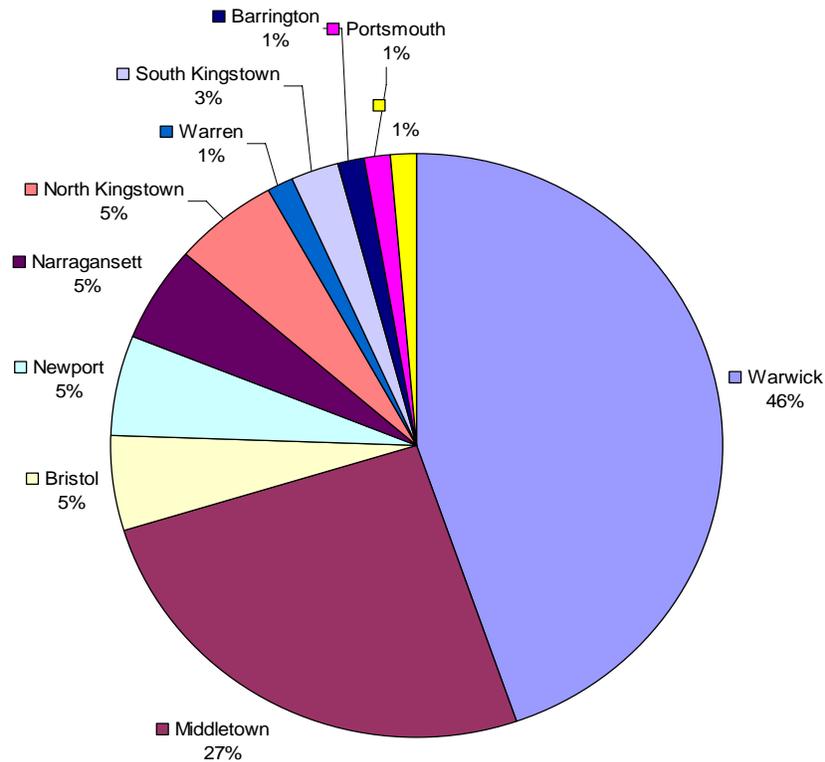
| County     | Beach Name                    | Closure Events | Closure Days |
|------------|-------------------------------|----------------|--------------|
| NEWPORT    | Atlantic Beach Club Beach     | 4              | 8            |
| BRISTOL    | Barrington Town Beach         | 1              | 1            |
| BRISTOL    | Bristol Town Beach            | 1              | 4            |
| WASHINGTON | Camp Fuller YMCA              | 1              | 2            |
| WASHINGTON | Camp Grosvenor                | 2              | 4            |
| KENT       | Conimicut Point Beach         | 6              | 13           |
| NEWPORT    | Easton's Beach                | 2              | 2            |
| NEWPORT    | Fort Adams State Park         | 1              | 1            |
| KENT       | Goddard Memorial State Park   | 4              | 6            |
| NEWPORT    | King Park Beach               | 1              | 1            |
| NEWPORT    | Mackerel Cove Beach           | 1              | 1            |
| KENT       | Oakland Beach                 | 4              | 14           |
| NEWPORT    | Peabody's Beach               | 1              | 3            |
| NEWPORT    | Sandy Point Beach             | 1              | 1            |
| WASHINGTON | Scarborough State Beach North | 1              | 2            |
| WASHINGTON | Scarborough State Beach South | 1              | 2            |
| NEWPORT    | Third Beach                   | 4              | 8            |
| BRISTOL    | Warren Town Beach             | 1              | 1            |
| Total      |                               | 37             | 74           |

The following table and charts document the percentage of closures attributed to each town. Note: all saltwater closure days occurred within sixteen of Rhode Island’s coastal towns

**Table 2. Percentage of Saltwater Beach Closure Days By Town for the 2011 Bathing Season**

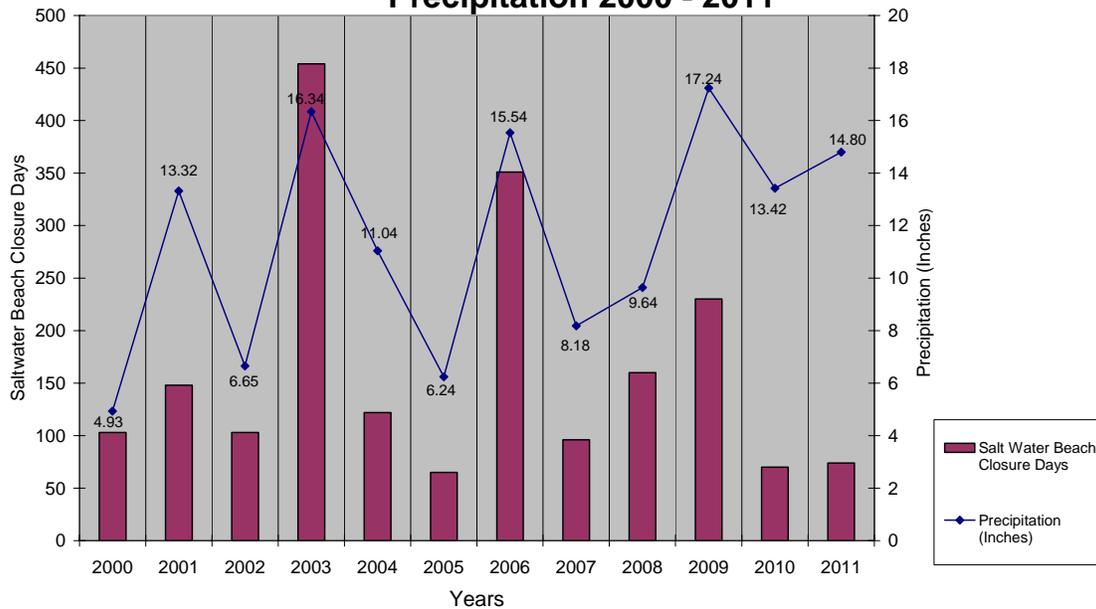
| <b>% Closure</b> | <b>Town</b>     | <b>Closure Days</b> | <b>Beaches</b>  |
|------------------|-----------------|---------------------|---|
| 45%              | Warwick         | 33                  | Conimicut Point Beach, Goddard Memorial State Park Beach, Oakland Beach |
| 26%              | Middletown      | 19                  | Atlantic Beach Club Beach, Peabody’s Beach, Third Beach                 |
| 5%               | Bristol         | 4                   | Bristol Town Beach, Camp St. Dorothy                                    |
| 5%               | Newport         | 4                   | Easton’s Beach, Fort Adams, Hazards Beach                               |
| 5%               | Narragansett    | 4                   | Scarborough State Beach North, Scarborough State Beach South            |
| 5%               | North Kingstown | 4                   | Camp Grosvenor  |
| 1%               | Warren          | 1                   | Warren Town Beach   |
| 3%               | South Kingstown | 2                   | Camp Fuller – YMCA Beach  |
| 1%               | Barrington      | 1                   | Barrington Town Beach   |
| 1%               | Portsmouth      | 1                   | Sandy Point Beach   |
| 1%               | Jamestown       | 1                   | Mackerel Cove Beach   |
| <b>100%</b>      |                 | <b>74</b>           |   |

**Chart A: Saltwater Beach Closure Days By Town for the 2011 Bathing Season**



**Chart B: Rhode Island Saltwater Beach Closure Days and Precipitation 2000-2011**

**Rhode Island Saltwater Beach Closure Days and Precipitation 2000 - 2011**



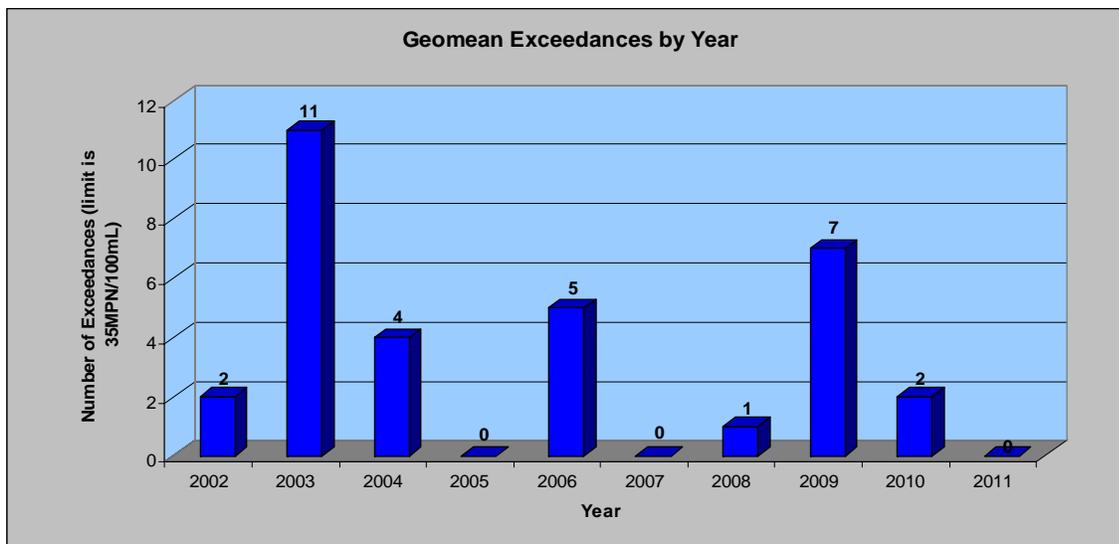
**3.3 Locational Data**

In summer and fall of 2009 EPA requested that Rhode Island review and correct locational data points for all monitored beaches. Using a web-based application the program found discrepancies at numerous beaches and resolved them. Having accurate locational data provides the EPA and the Beach Program with more precise beach extents. This allows for improved monitoring and notification.

### 3.4 Geometric Mean

A single outlier can drastically skew the arithmetic mean of a beach data set. The geometric mean is used to reduce the impact of significant outliers when averaging a large data set. The geometric mean is calculated by multiplying all data points and taking the  $n$ th root of the product, where  $n$  is the number of data points. The Beach Program uses geometric means as another metric to measure beach health. A complete list of all geometric means for 2011 can be found in **Appendix H**.

**Chart C. Geomean Exceedances by Year**



## 4.0 2011 PROJECTS

### 4.1 Urban Initiative

In 1999, EMPACT Program deemed areas north of Conimicut Point in Warwick and Nayatt Point in Barrington unsuitable for licensing. The Urban Initiative was launched in the summer of 2010. The primary goal was to identify and determine areas in the upper Narragansett Bay that are utilized for recreation and identify if such areas are safe for swimming. The project consisted of several steps. First was to locate areas in Warwick, Cranston, Barrington, and East Providence that were beach-like areas. Next was to identify access locations and sample the water for Enterococci and evaluate the water quality conditions.

Program Staff investigated various unlicensed public access points to restore access/use to communities that have currently impaired beaches. Sabin Point Park and Rose Larissa Memorial Park located in East Providence, RI and Gaspee Point located in Warwick, RI were investigated as part of the initiation. This study included; water quality sampling, property surveys and stakeholder meetings.

In 2011, The Beach Program continued the Urban Initiative. Existing urban access points were added to the biweekly sampling beach runs. Through a partnership with Save the Bay, two additional areas were added to the investigation, Bold Point Park in East Providence, and Field's Point in Providence.

EPA is working with HEALTH to provide dive team specialists to survey underwater conditions. Program Staff will communicate the findings of the Urban Initiative with local governments to restore access and use to the communities. Additional unlicensed public access points will be considered for further assessment.

#### 4.1.1 *Urban Initiative Data Analysis*

Water samples were collected from five public access points to assess water quality and potential bathing beach conditions. The analytical results of the Urban Initiative are included in **Appendix I**. Each location did report concentrations that exceeded the bathing beach standard as presented in the table below.

| <b>Location</b> | <b>Percent of Samples Exceeding Standard</b> |
|-----------------|--|
| Sabin Point     | 21.74%                                       |
| Rosa Larisa     | 27.27%                                       |
| Gaspee Point    | 26.47%                                       |
| Bold Point Park | 29.63%                                       |
| Field's Point   | 33.33%                                       |

The Urban Initiative and partnership with Save the Bay will continue into the 2012 beach season as we examine underwater conditions and hazards as described in Section 5.7.

#### 4.2 *Bristol Town Beach Green Infrastructure Improvements*

Four major projects we recently completed at Colt State Park (Bristol Town Beach). First, six catch basins were constructed between the beach and the surrounding park area. These catch basins are connected to bioswales which have been placed along the edge where the *fragmides* meet the water. Rain from the parking lot and park area enters the bioswales before entering the beach. The rainwater is filtered mechanically in the catch basins, and then further filtered by the vegetation in the bioswales. The bioswales also significantly slow down the flow of rainwater to prevent surges of storm water that may carry bacteria and other contamination.

Second, the 36" storm drainpipe that previously drained approximately 30 feet from the beach has been "daylighted" with a large transect (about 400 yards) cut open, exposing the water to the sun and outside environment. This open-air section will be a winding stream designed to slow the water flow down. Footbridges will allow for the public to enjoy the new stream while providing valuable access points to travel throughout the park. Around the stream, specialized plants were installed that will absorb the water through their root systems. All of these features create a stream that releases cleaner water into Narragansett Bay.

Third, the Town of Bristol has removed the parking lot at Bristol Town Beach and replaced it with an ecofriendly green parking lot with bioretention swales and specialized vegetation to further absorb and filter storm water.

Finally, the sewage treatment pipe closest to the beach received a major renovation. Underground storage tanks were added, which will store water during periods of high-volume rain. When the intense rain has

finished, the water will be released at greatly reduced rates, allowing for proper filtration and cleansing of the water.

All of these improvements have been made to decrease beach closures at Bristol Town Beach. The 2011 beach season was the first to see the affects of the improved infrastructure. In 2011, Bristol Town Beach had only one beach closure event, while in 2010 there were three closure events and in 2009 there were five closure events. These improvements along with testing collaboration between the beach program and the Town of Bristol have decreased beach closures giving Rhode Islanders access to the natural resources the state has to offer.

#### ***4.3 Governor's Bay Day 2011***

In July 2011, the Beach Program participated in Rhode Island's Governor's Bay Day. The purpose of Bay Day is to promote public awareness of the state's beaches. The Beach Program managed a table at Misquamicut State Beach to provide information on the Program and educate the public on what they can do to minimize beach closures. Educational materials included an interactive storm-water model that demonstrates how pollutants can be mobilized from urban, suburban, and rural areas into fresh and saltwater environments. Additional educational materials included beach health brochures, informational coloring pages and a scavenger hunt for children, sample beach closure sign, a tablet computer displaying the Beach Program website and Program staff to assist patrons with questions.

#### ***4.4 Town of Warren Reconstruction of Sewer Infrastructure***

The Beach Program has worked with The Town of Warren to address beach closures at the town beach. Subsequently, the Town of Warren is expected to spend approximately \$2 million to replace the entire sewer infrastructure along Water Street, directly adjacent to their beach. This project was expected to be completed before the 2011 beach season, however; the project is currently on hold until further notice.

#### ***4.5 Pet Waste Study***

The US Environmental Protection Agency (USEPA) has identified pet waste as a pollutant and has included it as part of the National Pollutant Discharge Elimination System (NPDES) which puts it in the same category with oil and hazardous chemicals. In 2011, the Beach Program partnered with the University of Rhode Island (URI) Undergraduate Research Initiative to investigate the extent of pet waste at beaches in Rhode Island. Data was collected from beach managers, the public, and through water quality analysis. In addition, students from URI visited saltwater beaches throughout the state and evaluated each for pet use, visible pet waste, visitor's perspectives, and opinions regarding pets at the beach.

If pet waste was observed on a beach, water samples were collected and analyzed for the presence of fecal coliform bacteria (One in five of the beaches where pet waste was observed had elevated levels of fecal coliform bacteria). Results from the study were utilized in educational outreach materials that communicate the results of the investigation and the importance of citizens to clean up after their pets.

USEPA states pet waste is 57% more toxic than human waste, and can harbor bacteria and parasites which cause illness in humans. Diseases spread by pet waste include campylobacteriosis, giardiasis, salmonellosis, and toxocariasis. All of these illnesses can cause gastrointestinal upset (nausea, vomiting, and diarrhea). Some of the other symptoms may include fever, rash, or headache.

Children who are playing in the sand at the beach can come in contact with pet waste and then put their unwashed hands in their mouth. In addition, rainwater or the tides can carry and spread the bacteria from pet waste to the water in which we swim. In both of these cases, pet waste can make people sick.

Pet waste is also harmful to the environment. It contains high levels of nitrogen and phosphorus, and can cause an increase in algae growth (algal blooms) in the bay. In order for algal blooms to decompose, they require oxygen from the water. During decomposition the water's oxygen supply is used by the algae instead of by other plants and animals in the bay. Just two or three days' worth of waste from 100 dogs can contribute enough bacteria to temporarily close a large area to swimming and shell fishing. When pet waste is thrown in storm drains, the runoff from streets storm drains quickly and easily washes the waste right into the bay and ocean.

During the investigation, water samples were collected where waste was observed at the beach on two separate occasions. The samples were analyzed for fecal coliform bacteria. Fecal coliform is commonly used to evaluate waste impacts and associated health risks. A sample result over 50 mean probable number (MPN) is considered elevated and may increase health risks. Results of the sampling are summarized in the table below.

**Pet Waste Water Sampling - Fecal Coliform Results**

| <b>Date</b> | <b>Beach Name</b>                 | <b>Results (MPN)</b> |
|-------------|-----------------------------------|----------------------|
| 7/7/2011    | Barrington Town Beach             | 9                    |
|             | Charlestown Town Beach            | <3                   |
|             | Gaspee Point Beach                | 240                  |
|             | Goddard Memorial State Park Beach | 43                   |
|             | Narragansett Town Beach           | 4                    |
|             | Ninigret Park                     | 43                   |
| 7/14/2011*  | Charlestown Town Beach            | <3                   |
|             | Gaspee Point Beach                | 240                  |
|             | Goddard Memorial State Park Beach | 9                    |
|             | Narragansett Town Beach           | <3                   |
|             | Ninigret Park                     | 43                   |

Notes:

MPN = Mean Probable Number

\* = Results are biased low - actual results may be higher

There are many factors that contribute to fecal coliform presence in bathing waters. Although all samples were collected with pet waste nearby, many unknown factors such as wildlife and runoff may have contributed to sample results.

Gaspee Point Beach was a location that had two elevated samples. It is not a licensed bathing beach facility, however it is an area frequented by the public and their pets. All other licensed bathing beach facilities did not show elevated levels of fecal bacteria.

One observation of the public surveys completed as part of the investigation showed that regulations regarding pet use at beaches vary by facility management. Many beaches allow pets year round while some have restrictions based on seasons or times of the day.

More than 100 members of the public were poled at beaches throughout the state during the investigation. The results of the surveys included:

- 82% of respondents think pet waste on the beach is a problem.
- 23% of respondents had seen or come across waste on the beach.
- 74% said pet waste on public beaches should be better regulated.
- Less than half of the respondents knew the regulations regarding dog use at the beach they were at.

An article was published in the Narragansett Bay Journal on the Beach Program Pet Waste Investigation and in local community publications. A full report was completed on the investigation and is available on the Beach Program website.

In the future, where pet waste is observed to be a problem, HEALTH will continue to develop a pet waste management plan and work with partners to find and eliminate sources of contamination at Rhode Island beaches.

#### ***4.6 2011 Water Use Survey***

In order to help HEALTH better understand state wide year round water use and associated health risks, the Beach Program conducted a year round water use survey. The survey consisted of 18 volunteers who were identified as year round water users. The study began in January 2011 and continued through the end of December 2011. Every time a volunteer entered the water they would document their experience in the water regarding water conditions, weather conditions, and health effects. Over the course of the year, 79 surveys were completed. At least one survey was completed every month and water exposure spanned across the state, in both the upper bay and southern coasts. A copy of the 2011 Water Use Survey is included in **Appendix J**.

The results of the survey reported 100% of respondent's heads were submerged while in the waters. 99% of respondents were in the water for over thirty min with the majority for over an hour. Winter water user populations were tracked through the survey with 91% of the respondents indicating there were other people in the water.

The survey was also used to track possible solution sources throughout the state. Volunteers reported everything from run-off discharging nearby to exposed tanks from erosion. No illnesses including rash or gastrointestinal were reported by the survey participants.

#### ***4.7 Re-Opening of King Park***

In 2011, the Beach Program worked with The City of Newport to re-open King Park Beach for the 2011 swimming season. The City of Newport made improvements to the combined sewage overflow system located at Wellington Ave and water quality analysis confirmed the park was suitable for swimming. Water quality testing will continue to be conducted by the Beach Program and The City of Newport to ensure healthy swimming conditions.

## **5.0 FUTURE ACTIVITIES**

### ***5.1 Monitoring and Data Collection***

In 2012, beach interns will conduct sampling at coastal beaches from Memorial Day through Labor Day. Approximately 2,500 samples will be collected, submitted, and analyzed for Enterococci bacteria during the summer season. Water quality samples are collected by HEALTH and beach managers and operators.

### ***5.2 Public Notification***

The Beach Program will distribute press releases to beach owners, local governments and Rhode Island media. The Beach Program website is available to the public with up to the minute advisories and closures. The Program will update the 24-hour telephone hotline on daily basis and produce Public Service Announcements to promote the Beach Program and Public Health.

### ***5.3 Source Tracking***

The Beach Program will work with sister agencies and local governments to find and eliminate sources of contamination at Rhode Island beaches. Program staff will coordinate meetings to drive change and lend support to others working for similar causes.

### ***5.4 Data Submission***

The Program Coordinator will prepare data for submission to EPA's Storet warehouse and WQX/CDX database. S/he will submit data files for the 2012 beach season to EPA Region 1.

### ***5.5 Beach Season Breakfast Kick-Off***

In May 2012, the Beach Program will hold its 2nd annual beach season kick-off meeting. This meeting will be open to all saltwater beach owners and managers as well as volunteer samplers, stakeholders, and municipalities. The kick-off will include an overview of the Program, upcoming seasonal projects and expectations of beach facilities. A question and answer period will follow.

### ***5.6 Pre-emptive Closure Evaluations***

Based on the successful protocols utilized at Easton's Beach and Scarborough State Beach, the Program will develop further closure evaluations. This will be accomplished by correcting all data, analyzing closure rates and rate of clean-up and documenting significant rain events.

### ***5.7 Urban Initiative***

In 2012, the Beach Program will continue its efforts with the Urban Initiative. EPA will assist HEALTH by providing dive team specialists to survey underwater conditions at these locations to help determine if they are safe for the public. Program Staff will communicate the findings of the Urban Initiative with local governments. The Beach Program will continue monitoring these locations and discuss these findings with each town.

**Appendix A**

Rules and Regulations for Licensing of Recreational Facilities

**RULES AND REGULATIONS FOR  
LICENSING OF RECREATIONAL FACILITIES**

[R23-21-RF]

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DEPARTMENT OF HEALTH

May 1980

*AS AMENDED*

June 1983

**January 2002 (re-filing in accordance with  
the provisions of section 42-35-4.1 of the  
Rhode Island General Laws, as amended)**

These amended rules and regulations are promulgated pursuant to the authority conferred under sections 23-1-5, 23-1-17 and 23-21-4 of the General Laws of Rhode Island of 1956, as amended, and are established for the purpose of defining the minimal standards for recreational facilities consistent with statutory provisions.

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## **PART A DEFINITIONS AND ADMINISTRATION**

### **Section 1.0 DEFINITIONS**

Wherever used in these rules and regulations the following terms shall be construed as follows:

- 1.1 "Adequate" shall mean that which is needed to accomplish the intended purpose in keeping with good public health practice.
- 1.2 "Amusement Place" shall mean any tract of land together with the structures located thereon, the principle use of which is to provide a "midway" of amusement, or animal or vehicle racing for public amusement or recreation.
- 1.3 "Bathing" shall mean swimming and the related activities connected thereto.
- 1.4 "Bathing Beach" shall mean any natural area or tract of land which is used in connection with swimming and/or bathing in any waters of the state provided:
  - (a) It is open to the public by permit and/or payment of a fee; or
  - (b) It is maintained as a private club or association requiring membership fee or dues; or
  - (c) It is maintained with or without charge for the recreation of groups of ten (10) or more children.
- 1.5 "Department" shall mean Rhode Island Department of Health.
- 1.6 "Director" shall mean the Director of the Rhode Island Department of Health or his duly authorized agents.
- 1.7 "Drainage Unit" shall mean a pit filled with crushed stone for soil absorption of potable water overflow at drinking facilities or watering stations.
- 1.8 "Family Camp" shall mean any place maintained to accommodate tents, mobile camping units, trailers, recreation vehicles, etc., in which separate sites are provided or made available for individuals, families or other groups of similar size. Service buildings may or may not be provided.
  - (a) "Primitive Family Camp" shall mean a place provided to accommodate camping with or without tents and/or shelters. Such places are usually NOT accessible to automobiles and/or recreation vehicles. A primitive family camp is a site at which basic needs for camp operation such as buildings, water supply systems, toilets, lavatories, showers and cooking facilities are NOT usually provided.
  - (b) "Caravan, Safari, Rally" shall mean an affiliated group of recreational vehicles assembled for a short term camping experience.
- 1.9 "Family Campsite" shall mean a portion of land in a camping area for the placement of a recreational vehicle and/or tent for the exclusive use of its occupants.
- 1.10 "Garbage" shall mean the putrescible animal and vegetable wastes that result from the handling, preparation and consumption of food.

- 1.11 "Hotel, Motel, Motor Court, Inn, Tourist Cabins" shall mean any building or group of buildings with six or more rooms, or accommodations for more than eight individuals, used for temporary occupancy for lodging or sleeping and further provided they are served by a private or non-community water supply or individual sewage disposal system.
- 1.12 "Mobile Home" shall mean a prefabricated, one-family dwelling unit, to which temporary wheels can be attached for transportation to a permanent location or foundation. Mobile homes are excluded from the provisions of these regulations.
- 1.13 "Operator" shall refer to any person who:
- (a) Alone or jointly or severally with others owns an establishment covered in these regulations; or
  - (b) Has care, charge or control of an establishment as agent or lessee of the owner or as an independent contractor.
- 1.14 "Person" will be held to mean any individual, firm, co-partnership, association or private or municipal corporation.
- 1.15 "Plastic Waste Insert" shall mean any liner which consists of a non-dissolvable material used as a convenience for the collection and disposal of refuse and human waste; e.g., liners for portable "Jonny" camp units, can liners, etc.
- 1.16 "Potable Water" shall mean water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming in its bacteriological, radiological and chemical quality to the requirement of the Rhode Island Department of Health Public Drinking Water Regulations.
- 1.17 "Primitive or Outpost Youth/Adult Camp" shall mean a camp or other site at which the basic needs such as places of abode, water supply systems and permanent toilet and cooking facilities are not usually provided.
- 1.18 "Recreation Facility" shall mean to include but not be limited to hotels, motels, motor courts or inns, tourist cabins establishments, camping areas, amusement places, bathing beaches, mobile recreational vehicle facilities and parks.
- 1.19 "Recreational Vehicle" shall mean a vehicle which may or may not be motor propelled, that is used primarily for recreation purposes on land. It includes motor homes, travel trailers, "pop-top" trailers, fold-out trailers, vans and other similar vehicles primarily designed for camping or overnight occupancy.
- (a) "Dependent Recreational Vehicle" shall mean a vehicle which has no permanent toilet, lavatory and shower facilities and is dependent upon a service building for toilet, lavatory and shower facilities.
  - (b) "Independent or Self-Contained Recreational Vehicle" shall mean a vehicle which can operate independent of connections to sewer, water and electric systems. It may contain a water-flushed toilet, lavatory, bath, shower and kitchen sink, all of which are connected to water storage and sewage holding tanks located within the vehicle.

- 1.20 "Refuse" shall mean all putrescible and non-putrescible solid wastes including garbage, rubbish, ashes and biological wastes.
- 1.21 "Rubbish" shall mean all non-putrescible solid wastes consisting of both combustible and non-combustible materials such as paper, tin cans, glass bottles, bedding, rags, crockery, metals, etc.
- 1.22 "Sanitary Station (Dump Station)" shall mean a facility used for receiving and disposing of wastes from various types of holding tanks.
- 1.23 "Sanitary Sewage" shall mean any human or animal excremental liquid or substance including the discharge of water closets, laundry tubs, washing machines, sinks, dishwashers and the contents of septic tanks, cesspools or privies. Waste water from dishwashing procedures, handwashing, bathing and shower facilities will be considered sewage.
- 1.24 "Service Building" shall mean a structure housing toilets, lavatories, showers and such other facilities as may be required.
- 1.25 "Shall or Must" shall be used to state mandatory requirements.
- 1.26 "Should or May" shall be used to state recommended or advisory procedures or equipment.
- 1.27 "Travel Trailer" shall mean a vehicular, portable structure built on a chassis with permanent wheels for the purpose of towing from place to place as a temporary residence for travel, recreation or vacation use.
- 1.28 "Watering Station" shall mean a centralized potable water supply outlet.
- 1.29 "Youth/Adult Camp" shall mean any camp, primitive or outpost camp, or residential camp which conducts a program for 10 or more campers.
  - (a) "Day Camp" - A camp operated for less than 24 hours in any one day not including day care centers as defined in section 23-28.1-5 of the General Laws. Day campers will be limited to two overnight programs per week.
  - (b) "Residential Camp" shall mean a camp which provides overnight facilities.

**Section 2.0 ADMINISTRATION**

- 2.1 **ISSUANCE AND EXPIRATION OF LICENSE** - No person shall maintain within this state any recreation facility or use as defined in Section 1.0 until such person shall have obtained a license therefore from the department in accordance with the requirements of section 2 of Chapter 23-21 of the General Laws of Rhode Island of 1956, as amended. Licenses are not transferable. All licenses must be prominently displayed at the licensed location.
- 2.2 **LICENSE APPLICATION** - The initial application for a license must be on forms provided. A detailed plan drawn to scale showing the entire site, location and layout of buildings, recreational vehicle sites, complete details of water supplies, pumps and service including well logs, sewage and refuse disposal units, bathing areas and all available unit sites must be approved by the Director prior to any construction and before any license can be issued. Plans and construction must comply with

all applicable existing laws and regulations. Additions or alterations subsequent to the submission of such will be made only with the approval of the Director.

- 2.3 **SUSPENSION OR REVOCATION OF LICENSE** - The Director may suspend or revoke any license for violation of the provisions of Chapter 23-21 of the Rhode Island General Laws or these regulations. The provisions of section 3 of Chapter 23-21 shall apply.
- 2.4 **VARIANCES** - In the event of special situations or unusual conditions, the Director may grant variances to these regulations. Requests for variances will be submitted in writing and detail to the licensing authority.
- 2.5 **RETROACTIVITY** - Recreational facilities licensed by the Department prior to 10 June 1980, the effective date of these rules and regulations, may be deemed acceptable with respect to said design and construction if they are capable of being maintained in a sanitary condition that protects the public health.
- 2.6 **PENALTY FOR VIOLATIONS** - Any person who violates the foregoing regulations shall be subject to the provisions of section 8 of Chapter 23-21 of the General Laws of Rhode Island of 1956, as amended, entitled Licensing of Recreational Facilities.
- 2.7 **SEVERABILITY** - If any provision of these regulations or the application thereof to any facility or circumstance shall be held invalid, such invalidity shall not affect the provisions or application of the regulations which can be given effect, and to this end the provisions of the regulations are declared to be severable.

## **PART B GENERAL REQUIREMENTS**

### **Section 3.0 ANIMALS AND PETS**

- (a) No owner or person in charge of a dog, cat or other pet animal shall permit it to run at large or to commit any nuisance within the limits of any recreational facility under these regulations. Any kennels, pens or other areas provided for such pets shall be maintained in a sanitary condition at all times.
- (b) The applicable provisions of Title 4, entitled Animal Health of the General Laws of Rhode Island of 1956, as amended, shall apply where applicable.
- (c) Horses and other farm animals must be stabled at least five hundred (500) feet away from living quarters, dining halls and kitchens in order to minimize odor and nuisance problems. Temporary shelters, corrals, tie rails or hitching posts shall not be located within two hundred (200) feet of any dining hall or other place where food is prepared, cooked or served. Stables must have cleanable floors properly drained and maintained. Drainage from stables and temporary quarters shall not contaminate any spring, stream, lake or other water drainage. All manure must be removed, stored or disposed of in a manner that prevents insect breeding.

### **Section 4.0 REPORTING OF COMMUNICABLE DISEASE**

- 4.1 Cases of communicable disease designated as "reportable diseases" by the Director of Health shall be reported promptly to the Rhode Island Department of Health in accordance with the "Regulations

Pertaining to Reporting of Communicable Disease" of the Rhode Island Department of Health.

- (a) When infectious diseases present a potential hazard or occur in epidemic form in campers, these shall be reported to the Rhode Island Department of Health, even if not designated as "reportable diseases".

#### Section 5.0 CURTAILMENT OF UTILITIES OR SERVICES

- 5.1 No person shall cause the water, or sewage disposal, service facility or equipment which is required to be made available under these minimum standards to be shut off or removed except for such temporary period as may be necessary during actual repairs or alterations or during temporary emergencies when curtailment of service is approved by the Director.

#### Section 6.0 ELECTRICAL DISTRIBUTION SYSTEM

- 6.1 Electrical wiring system provided shall consist of approved fixtures, equipment and appurtenances installed and maintained in accordance with the State Building Code.

#### Section 7.0 FOOD SERVICE

- 7.1 All food operations will comply with the requirements of Chapters 23-1, 21-27 and 21-31 of the General Laws of 1956, as amended, and the regulations adopted thereunder.

#### Section 8.0 LAUNDRY FACILITIES

- (a) If laundry facilities are provided in a recreational facility, there must be a separate room or building set aside for the use of washing machines and this use confined to the inhabitants of that recreational facility;
- (b) All laundry rooms will have floors that are impervious to water, easily cleaned and sloped to floor drains connected to the sewerage disposal system. The floors will be maintained in a sanitary condition at all times. Walls and partitions in laundries will be constructed of easily cleanable and impervious material;
- (c) Laundries will have 40 foot candles of lighting and be properly ventilated.

#### Section 9.0 PEST CONTROL

- (a) Grounds, buildings, parking areas, and structures must be maintained reasonably free of insect and rodent infestation and harborages;
- (b) Extermination methods and other measures to control pests must conform with requirements of the Department of Environmental Management where applicable or as approved by the Director.

#### Section 10.0 REFUSE STORAGE AND DISPOSAL

- (a) The operator shall provide an adequate storage area and maintain, in a clean and sanitary condition, as many receptacles for the storage of garbage and rubbish as are necessary to contain the accumulation between collections. Garbage and rubbish should be disposed of at

least twice weekly;

- (b) Garbage must be stored in fly-tight, water-tight, rodent-proof receptacles of metal or other durable material and properly covered;
- (c) The storage, collection and disposal of refuse must be so conducted as to create no health hazards, rodent harborage, insect breeding areas, accident or fire hazards or air pollution;
- (d) When garbage and rubbish is to be disposed of on the grounds, disposal must be approved by the Director of Environmental Management and shall be in accordance with Chapter 46, Title 23.

#### Section 11.0 SEPTIC TANK CLEANERS

11.1 Any establishment under these regulations that has apparatus for the removal of septage or sanitary sewage must comply with the provisions of Chapter 23-49, Rhode Island General Laws of 1956, as amended.

#### Section 12.0 SEWAGE DISPOSAL FACILITIES

- (a) Sewage must be disposed of in accordance with rules and regulations adopted under the authority of section 42-17.1-2(L), (M) and (R) of the Public Laws of 1978, Chapter 131, section 6;
- (b) Primitive or outpost camps will utilize methods approved by the Director.

#### Section 13.0 SWIMMING POOLS AND BATHING BEACHES

- (a) Where a swimming pool is provided, it will be constructed and operated in accordance with Chapter 23-22 of the General Laws of 1956, as amended, and all state regulations applicable;
- (b) Bathing beach water must meet bacteriological and safety standards as determined by the department, or the Department of Environmental Management.

#### Section 14.0 TOILETS, LAVATORIES AND SHOWERS

- (a) Each recreational facility will provide the number of toilets, showers or lavatories or fraction thereof as cited in Tables HIV of the appendix, and such facilities will be maintained clean, sanitary, well-lighted and in good repair;
- (b) Handwashing facilities will be adjacent to toilet facilities and urinals;
- (c) Potable hot and cold running water will be provided at all showers and lavatories unless a variance has been granted;
- (d) Approved hand cleaner and approved hand drying facilities will be provided at all lavatories unless a variance has been granted;
- (e) Proper ventilation will be provided;
- (f) 40 foot candles of light will be provided unless otherwise exempted;

- (g) Duckboards will not be used in showers.

### Section 15.0 WATER SUPPLY

- (a) The operator of all recreational facilities will supply potable water, under pressure, adequate for the needs of such facility. The water supply must be obtained from a source approved in writing by the Department and so distributed as to be readily available. If there is more than one well serving the recreational facility, each well must be visually, readily identifiable by name, number, color or some other means on or about the well;
- (b) The operator shall install and maintain all pipes and pumps delivering potable water in accordance with the State Building Code;
- (c) There must be no physical connection between any pipe carrying water from a potable water source and any pipe carrying water from any other source without written approval of the Director;
- (d) Drinking fountains shall be of a design meeting the following general criteria based on the National Plumbing Code, 1955 revision and installed in accordance with the State Building Code:
  - (1) The fountain shall be constructed of an impervious material and have an easily cleanable bowl and other surfaces;
  - (2) The jet of water must be at an angle preventing water from falling back into the orifice;
  - (3) The end of the nozzle must be protected by guards preventing the person using the fountain from contacting the nozzle;
  - (4) The nozzle must discharge above the edge of the bowl so an air gap is provided to prevent a possible cross-connection;
  - (5) Proper drainage must be provided to carry off water promptly.

## **PART C SPECIAL REQUIREMENTS**

### **SUBSECTION I**

#### Section 16.0 YOUTH/ADULT CAMPS

- 16.1 Toilets, Urinals and Privies - (1) Non-water carried sewage disposal systems such as pit privies, latrines and urinals may not be less than 100 feet from a kitchen or food service area; (2) Residential camps shall provide handwashing and shower facilities and will meet the minimum requirements as cited in Table II; (3) Sleeping areas shall not be more than 200 feet from a toilet or urinal nor less than 50 feet from any non-water carried toilets and/or urinals.
- 16.2 Handwashing and Showers, Etc. - (1) Handwashing and shower facilities shall be supplied with sufficient warm and cold running water; (2) Showers or bathtubs, when provided, must be in the living quarters or in a centrally located structure; (3) Handwashing facilities, shower stalls, bathtub areas and dressing compartments must be maintained in a clean and sanitary condition; (4) Day camps are not required to provide shower facilities; however, they must meet the requirements cited

in Table III; (5) Primitive or outpost camps are exempt from handwashing and shower facility requirements, as shown in Tables II and III.

- 16.3 Primitive (Outpost) Requirements - Basic standards of sanitation relative to waste and sewage disposal, water supply, lavatory, bathing facilities and food sanitation apply to all primitive camping including but not limited to the following: (1) Counselors must be trained in the basic principles of food protection and sanitation and a list of trained personnel certified by the director of camping for the particular organization shall be available; (2) Each individual shall have available approved clean, fresh water for lavatory needs; (3) Warm water and adequate facilities shall be available for handwashing; (4) Adequate facilities shall be provided for approved methods of sanitizing eating and drinking utensils; (5) slit trenches or "cat hole" disposal of human excreta or other recognized methods of sewage disposal must be provided.

## **SUBSECTION II**

### **Section 17.0 FAMILY CAMPS**

- 17.1 Waste Disposal - (1) One recreational vehicle sanitary station (dump station) with a foot-operated seal cover, or equivalent, providing sanitary closure of the sewer pipe inlet when not in use shall be provided for each 150 family campsites; (2) When potable water is supplied to an individual campsite, an approved means of sewage collection and/or disposal must be provided.
- 17.2 Potable Water Supply - A potable watering station must be provided for supplying recreational vehicle storage tanks. All necessary procedures must be taken to assure the safety of the water supply. A watering station must be at least fifty (50) feet away from a sanitary station. A sign at least two (2) feet by two (2) feet must be posted at each potable water station stating, in proportional lettering, "POTABLE WATER. NOT TO BE USED FOR FLUSHING WASTE TANKS".
- 17.3 Service Building - A central service building containing all necessary toilet and other required plumbing facilities must be provided for all recreational vehicle parking areas, except those reserved exclusively for independent recreational vehicles. Service buildings shall be located convenient to the parking spaces, but in no case more than five hundred (500) feet away. (See Table IV for required plumbing facilities.)
- 17.4 Primitive Camps - Basic standards of sanitation relative to waste and sewage disposal apply. Campers are responsible for using safe water for drinking and culinary purposes.
- 17.5 A Camping Caravan - Safari - Rally may be accommodated in an area maintained and licensed as a recreational facility provided adequate facilities are present to accommodate the types of recreational vehicles or tents involved. A camping caravan - safari - rally may be held on land not maintained as a recreational facility if prior approval is obtained from the Department of Health. Approved, adequate facilities must be readily available for good personal hygienic and public health protection. Approvals are limited to a three (3) day period.

**APPENDIX**

**PLUMBING FIXTURE REQUIREMENTS**

**Table I**

**Motels, Hotels, Cabins, Amusement Places, Bathing Beaches**

| <b>Facility</b>                      | <b>Toilets</b>             | <b>Urinals</b> | <b>Handwashing Facilities</b> | <b>Bathtubs or Showers</b> |
|--------------------------------------|----------------------------|----------------|-------------------------------|----------------------------|
| Motels, Hotels, Cabins, etc          | 1*                         | -              | 1*                            | 1*                         |
| Amusement Places and Bathing Beaches | 1/500 Male<br>1/500 Female | 1/500 Male     | 1/500 Male<br>1/500 Female    | -                          |

\*Per dwelling unit

**Table II**

**Youth - Residential Camps**

| <b>Number Served</b> | <b>Boys</b>    |                | <b>Girls</b>   | <b>Boys or Girls</b>          |                            |
|----------------------|----------------|----------------|----------------|-------------------------------|----------------------------|
|                      | <b>Toilets</b> | <b>Urinals</b> | <b>Toilets</b> | <b>Handwashing Facilities</b> | <b>Bathtubs or Showers</b> |
| 1-10                 | 1              | -              | 1              | 1                             | 1                          |
| 11-18                | 1              | 1              | 2              | 2                             | 2                          |
| 19-33                | 2              | 1              | 2              | 3                             | 2                          |
| 34-48                | 2              | 2              | 3              | 3                             | 3                          |
| 49-63                | 3              | 2              | 4              | 4                             | 4                          |
| 64-79                | 3              | 3              | 5              | 4                             | 5                          |
| 80-95                | 4              | 3              | 6              | 5                             | 6                          |

**Table III**

**Youth - Day Camps**

| <b>Facilities</b> | <b>Boys</b> | <b>Girls</b> |
|-------------------|-------------|--------------|
| Toilets*          | 1/60        | 1/35         |
| Urinals*          | 1/60        | -            |
| Handwashing*      | 1/33        | 1/33         |

\*Per number of individuals served

**Table IV**

**Family Camps**

| <b>Number of Sites</b> | <b>Toilets</b> |              | <b>Urinals</b> | <b>Handwashing Facilities</b> |              | <b>Showers</b> |              | <b>Other (a)</b> |
|------------------------|----------------|--------------|----------------|-------------------------------|--------------|----------------|--------------|------------------|
|                        | <b>Men</b>     | <b>Women</b> | <b>Men</b>     | <b>Men</b>                    | <b>Women</b> | <b>Men</b>     | <b>Women</b> |                  |
| 1-30                   | 2              | 2            | 1              | 2                             | 2            | 1              | 1            | 1                |
| 31-45                  | 2              | 2            | 1              | 3                             | 3            | 1              | 1            | 1                |
| 46-60                  | 2              | 3            | 2              | 3                             | 3            | 2              | 2            | 1                |
| 61-80                  | 3              | 4            | 2              | 4                             | 4            | 2              | 2            | 1                |
| 81-100                 | 3              | 4            | 2              | 4                             | 4            | 3              | 3            | 1                |
| 100+ (b)               |                |              |                |                               |              |                |              |                  |

- (a) A flushing toilet (without seat) shall be provided, at each service building, for disposal of liquid wastes unless a sanitary station is conveniently accessible.
- (b) For recreational vehicle areas having more than 100 sites there shall be provided 1 additional toilet and lavatory, for each sex, for each additional 30 sites; 1 additional shower, for each sex, for each additional 40 sites; and 1 additional men's urinal for each additional 100 sites.

**Appendix B**  
Daily Bathing Beach Survey Form



Department of Health

Three Capitol Hill  
Providence, RI 02908-5097

TTY: 711  
[www.health.ri.gov](http://www.health.ri.gov)

## 2011 Daily Bathing Beach Survey

Name of Beach: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Water Temp: \_\_\_\_\_

Weather Conditions:

Sunny & Clear \_\_\_\_\_ Cloudy & Overcast \_\_\_\_\_ Rainy \_\_\_\_\_ Foggy \_\_\_\_\_ Windy \_\_\_\_\_

Tidal Conditions:

Slow \_\_\_\_\_ Moderate \_\_\_\_\_ High \_\_\_\_\_ High Tide \_\_\_\_\_ Low Tide \_\_\_\_\_

Activity on Beach:

Approx.# of People \_\_\_\_\_ Adults \_\_\_\_\_ Children \_\_\_\_\_

Swimming \_\_\_\_\_ Sunbathing \_\_\_\_\_ Fishing \_\_\_\_\_ Boating \_\_\_\_\_ Walking \_\_\_\_\_ Other \_\_\_\_\_

Conditions of the Beach:

Overall Appearance: \_\_\_\_\_ Excellent \_\_\_\_\_ Good \_\_\_\_\_ Fair \_\_\_\_\_ Poor \_\_\_\_\_

Debris on Beach \_\_\_\_\_ Debris in Water \_\_\_\_\_

Vegetation in Water: <25% 25% 50% 75% 100% Cover in 1 meter quadrat

Vegetation on Shore: <25% 25% 50% 75% 100% Cover in 1 meter quadrat

Width of Wrack on shore (in meters) \_\_\_\_\_

Visible sewage or sewage odor \_\_\_\_\_

Pipes on beach # \_\_\_\_\_ Discharging # \_\_\_\_\_ People in pipe stream? \_\_\_\_\_

Conditions of Water:

Clear \_\_\_\_\_ Cloudy & Murky \_\_\_\_\_ Oily Film \_\_\_\_\_

Sources of Pollution:

Waterfowl Approx.#- \_\_\_\_\_ Seagulls \_\_\_\_\_ Ducks \_\_\_\_\_ Geese \_\_\_\_\_ Swans \_\_\_\_\_

Approx. # of Boats \_\_\_\_\_

Wind and Weather Conditions:

\_\_\_\_\_

Additional Comments:

\_\_\_\_\_

\_\_\_\_\_

**Appendix C**

Easton's Beach UV Treatment System Monitoring Locations

## Easton's Beach Source Tracking Sample Locations



**Appendix D**  
2011 Easton's Beach UV Treatment System Data

**Easton's Beach UV Treatment System  
2011 Data**

| Date                                | UV - Run Time                          | Rainfall Time                       | Total Rainfall " | Laboratory          | Sample Time                                      | Enterococci MPN |     |               |                 |            |              | Total Suspended Solids mg/l |       |     |      |    |    |    |
|-------------------------------------|--|-------------------------------------|------------------|---------------------|--|-----------------|-----|---------------|-----------------|------------|--------------|-----------------------------|-------|-----|------|----|----|----|
|                                     |  |                                     |                  |                     |  | Inf             | Eff | Stream (Moat) | Mouth of Stream | Beach East | Beach Center | Beach West                  | Inf   | Eff | Moat |    |    |    |
| May 24, 2011                        | 3:30 am - 9:30 am                      | 1:00 am - 8:00 am                   | 0.60"            | RI Analytical       | 4:15 am, 4:25 am, 4:45am                         | 1,000           | 5   | 600           |                 |            |              |                             |       |     |      |    |    |    |
|                                     |  |                                     | 0.48"            | BAL                 | 12:15: pm, 12:30 pm, 12:30 pm, 12:20 pm          | --              | --  | 354           |                 | 10         | 10           | 20                          | --    | --  | --   |    |    |    |
| May 26, 2011                        |  |                                     | 0.00"            | DOH                 | 7:30 am, 7:15, am                                |                 |     |               | 2143            | 254        |              |                             | --    | --  | --   |    |    |    |
| June 1, 2011                        |  |                                     | 0.01"            | DOH                 | 8:15 am, 8:15 am, 8:15 am, 8:15 am, 8:15 am      |                 |     | 6488          | 5475            | 10         | 10           | 20                          | --    | --  | --   |    |    |    |
| June 2, 2011                        |  |                                     | 0.00"            | DOH                 | 7:30 am, 7:45 am                                 |                 |     |               | 4106            | 187        |              |                             | --    | --  | --   |    |    |    |
| June 6, 2011                        |  |                                     | 0.00"            | DOH                 | 7:45 am, 7:45 am, 7:45 am, 7:45 am, 7:45 am      |                 |     | 3076          | 3448            | 10         | 10           | 10                          | --    | --  | --   |    |    |    |
| June 8, 2011                        |  |                                     | T"               | DOH                 | 8:00 am, 7:45 am, 8:15 am, 8:15 am, 8:15 am      |                 |     | 2481          | 3873            | 327        | 10           | 31                          | --    | --  | --   |    |    |    |
| June 9, 2011                        | 7:16pm - 1:00am (6/10/11)              | 2:00pm - 10:00pm                    | 0.56"            | New England Testing | 8:24 pm, 8:35 pm, 8:45pm                         | 3,441           | 10  | 3,873         |                 |            |              |                             | 15    | 22  | 36   |    |    |    |
|                                     |  |                                     |                  |                     | 8:55pm, 9:05pm, 9:12 pm                          | 17,329          | 30  | 2755          |                 |            |              |                             |       |     | 31   | 54 | 77 |    |
|                                     |  |                                     | 0.46"            | DOH                 | 8:00 am, 8:00 am                                 |                 |     |               | 24192           | 583        |              |                             |       |     |      |    |    |    |
| June 10, 2011                       |  |                                     | 0.00"            | BAL                 | 8:15 am, 8:15 am, 8:30 am                        |                 |     | 323           | 359             | 10         |              |                             |       |     |      |    |    |    |
| June 11, 2011                       |  |                                     | 0.31"            | DOH                 | 10:00 AM   |                 |     |               |                 |            |              |                             | 10    |     |      |    |    |    |
| June 12, 2011                       | 6/11/2011 8:00 p.m. - 9:00am           | 6/11/11 4:00pm - 12:00 pm           | 1.35"            | RI Analytical       | 8:55 am, 9:00am, 9:04am                          | > 2400          | 4   | > 2400        |                 |            |              |                             |       |     |      | 25 | 33 | 28 |
| June 13, 2011                       |  |                                     | T"               | DOH                 | 8:15 am, 8:15 am, 8:30 am, 8:30 am, 8:30 am      |                 |     | 3076.00       | 3873.00         | 30.00      |              | 74.00                       | 10.00 |     |      |    |    |    |
|                                     |  |                                     |                  | BAL                 | 11:45 am, 11:45 am, 11:45 am, 12:15 pm, 12:00 pm |                 |     | 213.00        | 408.00          | 10.00      | 10.00        | 10.00                       |       |     |      |    |    |    |
| June 15, 2011                       |  |                                     | 0.00"            | DOH                 | 9:15 am, 9:15 am, 9:15 am, 9:15 am, 9:15 am      |                 |     | 1236.00       | 990.00          | 10.00      | 10.00        | 10.00                       |       |     |      |    |    |    |
| June 16, 2011                       |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am                                 |                 |     |               | 1664.00         | 10.00      |              |                             |       |     |      |    |    |    |
| June 20, 2011                       |  |                                     | 0.00"            | DOH                 | 9:30 am, 9:30 am, 9:30 am, 9:15 am, 9:15 am      |                 |     | 1616.00       | 419.00          | 10.00      | 10.00        | 10.00                       |       |     |      |    |    |    |
| June 22, 2011                       | 9:07pm - 2:45 pm (6/26/11)             | 2:00pm - 12:01am (6/24/11)          | 1.75"            | RI Analytical       | 10:50 pm, 11:00 pm, 11:20pm                      | 14,000          | 2   | 1,600         |                 |            |              |                             | 60    | 62  | 72   |    |    |    |
|                                     |  |                                     |                  |                     | 11:35 pm, 11:40 pm, 11:55 pm                     | 24,000          | 1   | 50            |                 |            |              | 59                          | 50    | 46  |      |    |    |    |
|                                     |  |                                     | 1.03"            | DOH                 | 9:00 am, 9:00 am, 9:00 am, 9:00 am, 9:00 am      |                 |     | 4106          | 2382            | 10         | 41           | 10                          |       |     |      |    |    |    |
| June 23, 2011                       | 11:07 pm (6/22/11) - 2:45 pm (6/26/11) | 2:00pm(6/22/11) - 12:01am (6/24/11) | 1.45"            | F/O                 | 1:37 pm, 1:38 pm, 1:46 pm                        | 2143            | 10  | 20            |                 |            |              |                             | 4     | --  | 4    |    |    |    |
|                                     |  |                                     |                  |                     | 1:50 pm, 1:55 pm, 2:03 pm                        | 933             | 10  | 63            |                 |            |              | 7                           |       |     |      |    |    |    |
|                                     |  |                                     |                  |                     | 2:11 pm, 2:15 pm, 2:20 pm                        | 1130            | 10  | 85            |                 |            |              | 4                           | 6     | 6   |      |    |    |    |
|                                     |  |                                     |                  |                     | 2:31 pm, 2:35 pm, 2:42 pm                        | 1467            | 10  | 109           |                 |            |              | 2                           | 9     | 18  |      |    |    |    |
|                                     |  |                                     |                  |                     | 2:51 pm, 2:54 pm, 3:02 pm                        | 148             | 10  | 10            |                 |            |              | 3                           | 6     | 6   |      |    |    |    |
|                                     |  |                                     |                  |                     | GeoMean  | 867             | 10  | 41            |                 |            |              | 4                           | 7     | 7   |      |    |    |    |
|                                     |  |                                     | 0.42"            | DOH                 | 8:00 am, 8:00 m                                  |                 |     |               | 24192           | 336        |              |                             |       |     |      |    |    |    |
| June 27, 2011                       |  |                                     | 0.00"            | BAL                 | 10:45 am, 10:30 am, 10:45 am, 10:45 am, 10:45 am |                 |     | 63            | 122             | 31         | 225          | 41                          |       |     |      |    |    |    |
|                                     |  |                                     |                  | DOH                 | 9:30 am, 9:30 am, 9:30 am, 9:30 am               |                 |     |               | 216             | 882        | 10           | 10                          |       |     |      |    |    |    |
| June 29, 2011                       |  |                                     | 0.01"            | DOH                 | 8:45 am, 8:45 am, 8:30 am, 8:30 am, 8:45 am      |                 |     | 2098          | 399             | 31         | 10           | 10                          |       |     |      |    |    |    |
| June 30, 2011                       |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am                                 |                 |     |               | 2841            | 20         |              |                             |       |     |      |    |    |    |
| July 6, 2011                        |  |                                     | 0.00"            | DOH                 | 9:00 am, 9:00 am, 9:00am, 9:30 am, 9:30 am       |                 |     | 2143          | 3873            | 97         | 41           | 10                          |       |     |      |    |    |    |
| July 9, 2011                        |  |                                     | 0.30"            | BAL                 | 1:30 pm, 1:30 pm, 1:30 pm, 1:15 pm, 1:15 pm      |                 |     | 52            | 181             | 20         | 10           | 30                          |       |     |      |    |    |    |
| July 11, 2011                       |  |                                     | 0.00"            | DOH                 | 10:00 am, 10:00 am, 10:00 am, 10:00 am           |                 |     | 1607          | 1664            | 10         | 10           |                             |       |     |      |    |    |    |
| July 12, 2011                       | 4:55 am - 8:25 pm                      | 3:00 am - 4:00 am                   | 0.29"            | RI Analytical       | 5:35 am, 5:38 am, 5:45 am                        | 13,000          | 5   | 86            |                 |            |              |                             | 16    | 26  | 17   |    |    |    |
| July 13, 2011                       | 8:45 pm - 11:10 pm                     | 8:00 pm - 9:30 pm                   | 0.25"            | RI Analytical       | 10:57 pm, 10:59 pm, 11:10pm                      | 14,800          | 10  | 85            |                 |            |              |                             | 16    | 6   | 4    |    |    |    |
|                                     |  |                                     |                  |                     | 9:00 am, 9:00 am, 9:00 am, 9:15 am, 9:15 am      |                 |     | 1223          | 4352            | 62         | 10           | 10                          |       |     |      |    |    |    |
| July 14, 2011                       |  |                                     | T"               | DOH                 | 8:00 am, 8:00 am                                 |                 |     |               | 95              | 31         |              |                             |       |     |      |    |    |    |
| July 18, 2011                       |  |                                     | 0.02"            | DOH                 | 9:00 am, 9:00 am, 9:00 am, 9:15 am, 9:30 am      |                 |     | 620           | 2755            | 30         | 10           | 10                          |       |     |      |    |    |    |
| July 20, 2011                       |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am, 8:00 am,                       |                 |     | 10            | 10              | 10         |              | 10                          |       |     |      |    |    |    |
| July 21, 2011                       |  |                                     | 0.00"            | DOH                 | 8:00 AM  |                 |     |               |                 | 10         |              |                             |       |     |      |    |    |    |
| July 25, 2011                       |  |                                     | 0.08"            | DOH                 | 8:00 am, 8:00 am, 8:00 am, 8:00 am, 8:00 am      |                 |     | 546           | 156             | 20         | 10           | 9606                        |       |     |      |    |    |    |
| July 27, 2011                       |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am, 8:00 am, 8:00 am, 8:00 am      |                 |     | 1039          | 3076            | 20         | 10           | 10                          |       |     |      |    |    |    |
| July 28, 2011                       |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am                                 |                 |     |               | 109             | 145        |              |                             |       |     |      |    |    |    |
| August 1, 2011                      |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am, 8:00 am, 8:00 am, 8:00 am      |                 |     | 794           | 583             | 74         | 10           | 10                          |       |     |      |    |    |    |
| August 3, 2011                      |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am, 8:00 am, 8:00 am, 8:00 am      |                 |     | 650           | 934             | 20         | 83           | 10                          |       |     |      |    |    |    |
| August 4, 2011                      |  |                                     | 0.00"            | DOH                 | 8:00 am, 8:00 am                                 |                 |     |               | 865             | 41         |              |                             |       |     |      |    |    |    |
| <b>RIDOT Storm Drain Re-located</b> |  |                                     |                  |                     |  |                 |     |               |                 |            |              |                             |       |     |      |    |    |    |
| August 7, 2011                      | 7:51 am - 2:00 pm                      | 7:00 am - 4:00 pm                   | 1.1"             | F/O                 | 12:25 pm, 12:35 pm, 12:40 pm                     | 6,131           | 10  | 410           |                 |            |              |                             | 60    | 66  | 97   |    |    |    |
|                                     |  |                                     |                  |                     | 12:45 pm, 12:50 pm, 1:00 pm                      | 6488            | 41  | 1296          |                 |            |              | 188                         | 101   | 100 |      |    |    |    |
|                                     |  |                                     |                  |                     | 1:05 pm, 1:10 pm, 1:15 pm                        | 8664            | 10  | 63            |                 |            |              | 14                          | 33    | 60  |      |    |    |    |
|                                     |  |                                     |                  |                     | 1:20 pm, 1:25 pm, 1:30 pm                        | 10462           | 52  | 85            |                 |            |              | 15                          | 13    | 5   |      |    |    |    |
|                                     |  |                                     |                  |                     | 1:45 pm, 1:50 pm, 1:55 pm                        | 15531           | 120 | 109           |                 |            |              | 7                           | 53    | 9   |      |    |    |    |
|                                     |  |                                     |                  |                     | GeoMean  | 8905            | 30  | 199           |                 |            |              | 28                          | 43    | 30  |      |    |    |    |
| August 8, 2011                      | 5:20 pm - 2:00 pm (8/10/11)            | 5:00 pm - 6:40 pm                   | 1.41"            | F/O                 | 9:45 pm, 9:50 pm, 9:55 pm                        | 24,196          | 10  | 52            |                 |            |              |                             | 8     | 14  | 6    |    |    |    |
|                                     |  |                                     |                  |                     | 10:00 pm, 10:05 pm, 10:15 pm                     | 19,863          | 10  | 63            |                 |            |              | 10                          | 6     | 4   |      |    |    |    |
|                                     |  |                                     |                  |                     | 10:20 pm, 10:25 pm, 10:30 pm                     | 17,329          | 10  | 10            |                 |            |              | 4                           | 13    | 6   |      |    |    |    |
|                                     |  |                                     |                  |                     | 10:35 pm, 10:40 pm, 10:50 pm                     | 17,329          | 10  | 10            |                 |            |              | --                          | 16    | 8   |      |    |    |    |
|                                     |  |                                     |                  |                     | 10:55 pm, 11:00 pm, 11:05 pm                     | 24,196          | 10  | 31            |                 |            |              | 8                           | 8     | 4   |      |    |    |    |
|                                     |  |                                     |                  |                     | GeoMean  | 20,352          | 10  | 25            |                 |            |              | 7                           | 11    | 5   |      |    |    |    |
| August 9, 2011                      |  |                                     | 0.64"            | BAL                 | 11:30 am, 11:30 am, 11:30 am, 11:30am, 11:45 am  |                 |     | 250           | 382             |            | 10           | 30                          |       |     |      |    |    |    |
|                                     |  |                                     | 0.32"            | BAL                 | 10:00 am, 10:00 am, 10:00 am, 10:15 am, 10:00 am |                 |     |               | 98              | 10         | 10           | 63                          |       |     |      |    |    |    |
| August 10, 2011                     |  |                                     | T"               | DOH                 | 8:00 am, 8:00 am, 8:00 am, 8:00 am, 8:00 am      |                 |     | 512           | 512             | 10         | 10           | 84                          |       |     |      |    |    |    |
| August 11, 2011                     |  |                                     | T"               | DOH                 | 8:00 am, 8:00 am                                 |                 |     |               | 855             | 20         |              |                             |       |     |      |    |    |    |

**Easton's Beach UV Treatment System  
2011 Data**

| Date              | UV - Run Time               | Rainfall Time   | Total Rainfall " | Laboratory    | Sample Time                                      | Enterococci MPN |     |                |                 |            |              | Total Suspended Solids mg/l |     |     |            |
|-------------------|-----------------------------|---|------------------|---------------|--|-----------------|-----|----------------|-----------------|------------|--------------|-----------------------------|-----|-----|------------|
|                   |                             |   |                  |               |  | Inf             | Eff | Stream (Moat)  | Mouth of Stream | Beach East | Beach Center | Beach West                  | Inf | Eff | Moat       |
| August 15, 2011   | 8:15 am - 2:00 pm (8/16/11) | 2:00 am - 11:00 pm                                    | 2.45"            | F/O           | 10:30 am, 10:35 am, 10:43 am, 10:48 am           | 8,164           | 10  | 11,199         |                 |            |              |                             | 12  | 8   | 16         |
|                   |                             |   |                  |               | 10:53 am, 10:58 am, 11:07 am, 11:12 am           | 3,873           | 10  | 2,196          |                 |            |              | 6                           | 6   | 12  |            |
|                   |                             |   |                  |               | 11:16 am, 11:20 am, 11:27 am, 11:30 am           | 10,462          | 10  | 4,352          |                 |            |              | 7                           | 6   | --  |            |
|                   |                             |   |                  |               | 11:35 am, 11:39 am, 11:43 am, 11:49 am           | 5,172           | 10  | 15,531         |                 |            |              | 4                           | 6   | 8   |            |
|                   |                             |   |                  |               | 11:55 am, 11:59 am, 12:06 pm, 12:10 pm           | 8,664           | 10  | 3,076          |                 |            |              | 50                          | 28  | 26  |            |
|                   |                             |   | 2.03"            | DOH           | GeoMean  | 6,826           | 10  | 5,518          |                 |            |              | 10                          | 9   | 14  |            |
| August 16, 2011   |                             |   | T"               | BAL           | 8:00 am, 8:00 am, 8:00 am, 8:00 am, 8:00 am      |                 |     | 302            | 262             | 20         | 85           | 41                          |     |     |            |
| August 17, 2011   |                             |   | 0.00"            | DOH           | 10:30 am, 10:00 am, 10:30 am, 10:30 am, 10:45 am |                 |     | 10             | 226             | 10         | 31           | 51                          |     |     |            |
| August 22, 2011   |                             |   | 0.05"            | DOH           | 8:00 am, 8:00 am, 8:00 am, 8:00 am               |                 |     | 309            | 10              | 1187       | 10           | 83                          |     |     |            |
| August 24, 2011   |                             |   | 0.00"            | DOH           | 8:00 am, 8:00 am, 8:00 am, 8:00 am               |                 |     | 1374           | 1935            | 63         | 10           |                             |     |     |            |
| August 25, 2011   |                             |   | T"               | DOH           | 9:00 am, 9:00 am, 8:00 am, 8:00 am, 8:00 am      |                 |     | 119            | 85              | 10         | 10           | 20                          |     |     |            |
| August 30, 2011   |                             |   | 0.00"            | DOH           | 8:00 AM  |                 |     |                |                 | 95         |              |                             |     |     |            |
| August 31, 2011   |                             |   | 0.00"            | DOH           | 8:00 am, 8:00 am, 8:00 am                        |                 |     |                |                 | 146        | 10           | 10                          |     |     |            |
| September 6, 2011 | 6:45 am - 7:45 (9/7/11)     | 5:00 am - 7:00am (0.7") with light rain into sampling | 0.9"             | F/O           | 8:00 am, 8:00 am, 8:00 am                        |                 |     |                |                 | 74         | 30           | 10                          |     |     |            |
|                   |                             |   |                  |               | 10:58 am, 11:05 am, 11:10 am, 11:15 am           | 473             | 10  | 10             |                 |            |              | 52                          | 36  | 29  |            |
|                   |                             |   |                  |               | 11:25 am, 11:30 am, 11:40 am, 11:45 am           | 933             | 20  | 10             |                 |            |              | 14                          | 14  | 132 |            |
|                   |                             |   |                  |               | 11:50 am, 11:55 am, 12:00 pm, 12:05 pm           | 408             | 10  | 10             |                 |            |              | 10                          | 13  | 142 |            |
|                   |                             |   |                  |               | 12:10 pm, 12:15 pm, 12:20 pm, 12:25 pm           | 441             | 10  | 10             |                 |            |              | 28                          | 28  | 20  |            |
|                   |                             |   | 2.36"            | RI Analytical | 12:30 pm, 12:35 pm, 12:40 pm, 12:45 pm           | 663             | 10  | 10             |                 |            |              | 16                          | 12  | 84  |            |
| 9/8/2011*         | 8:03 am - 10:00 am (9/9/11) | 6:00am (9/7/11) - 10:30 am                            | 2.36"            | RI Analytical | GeoMean  | 555             | 11  | 10             |                 |            |              | 20                          | 19  | 59  |            |
|                   |                             |   |                  |               | 8:52 am, 8:55 am, 9:00 am, 9:05 am               | >24000          | <10 | 12000 (Bridge) | 14000(Beach)    |            |              |                             | 32  | 31  | 30 (Beach) |

Enterococci Method EPA Method 1600 and IDEXX Enterolert Method  
TSS Method EPA Method 2540D  
= UV System was operational  
-- = No Information  
T" = Trace precipitation  
Stream= Stream and Moat  
Mouth of Stream= "Stream Mouth", "Mouth of Moat"  
\*= Wave Ave SSO occurred  
United Water Samples are analyzed by RI Analytical

**Appendix E**  
Rhode Island Beach Program Closure Evaluation Spreadsheet

**Rhode Island Department of Health Beach Monitoring Program**

**Closure Evaluation Spreadsheet**

|   | <b>2000</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> | <b>2011</b> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Number of Monitored Freshwater Beaches</b>               | 51          | 51          | 49          | 51          | 47          | 50          | 53          | 49          | 50          | 50          | 42          | 42          |
| <b>Number of Monitored Saltwater Beaches</b>                | 31          | 31          | 70          | 72          | 71          | 69          | 69          | 69          | 74          | 68          | 72          | 70          |
| <b>Total Number of Monitored Beaches</b>                    | 82          | 82          | 119         | 123         | 118         | 119         | 122         | 118         | 124         | 118         | 114         | 112         |
| <b>Sample Count*</b><br>(HEALTH - EPA Funded Sampling Only) | 515         | 976         | 1,779       | 2,567       | 2,701       | 3,211       | 2,769       | 1,718       | 1,655       | 1,770       | 1,908       | 2,678       |
| <b>Rainfall Total</b><br>(Memorial Day - Labor Day)         | 4.93        | 13.32       | 6.65        | 16.34       | 11.04       | 6.24        | 15.54       | 8.18        | 9.64        | 17.24       | 13.42       | 14.8        |
| <b>Significant Rain Events</b><br>(>0.5" in 24-hr)          | 4           | 7           | 6           | 12          | 9           | 4           | 7           | 6           | 6           | 13          | 11          | 9           |
| <b>Closure Events</b>                                       | 13          | 26          | 27          | 67          | 41          | 30          | 91          | 43          | 52          | 89          | 56          | 74          |
| <b>Closure Days</b>   | 103         | 148         | 103         | 459         | 122         | 65          | 351         | 96          | 164         | 230         | 150         | 222         |

\* Sample count estimates do not include approximately 1,000 samples submitted by Beach Operators on an annual basis, which are reviewed by RIDOH.

For up to the minute information, visit us online at [www.health.ri.gov](http://www.health.ri.gov) or via our hotline at 401-222-2751.

Notes:

Significant Rain Events Calculated from Warwick RI - Central location of state.

**Appendix F**  
2011 Coastal Beach Action Summary

**2011 Coastal Beaches Action Summary**

| <b>Beach Name</b>             | <b>Town/City</b> | <b>Action Type</b> | <b>Action Start Date</b> | <b>Action End Date</b> | <b>Action Duration</b> |
|-------------------------------|------------------|--------------------|--------------------------|------------------------|------------------------|
| Atlantic Beach Club           | Middletown       | closure            | 6/24/2011                | 6/25/2011              | 1                      |
| Atlantic Beach Club           | Middletown       | closure            | 6/28/2011                | 6/30/2011              | 2                      |
| Atlantic Beach Club           | Middletown       | closure            | 8/15/2011                | 8/18/2011              | 3                      |
| Atlantic Beach Club           | Middletown       | closure            | 8/23/2011                | 8/25/2011              | 2                      |
| Barrington Town Beach         | Barrington       | closure            | 7/14/2011                | 7/15/2011              | 1                      |
| Bristol Town Beach            | Bristol          | closure            | 6/2/2011                 | 6/6/2011               | 4                      |
| Camp Fuller - YMCA Beach      | South Kingstown  | closure            | 7/27/2011                | 7/29/2011              | 2                      |
| Camp Grosvenor                | North Kingstown  | closure            | 6/14/2011                | 6/16/2011              | 2                      |
| Camp Grosvenor                | North Kingstown  | closure            | 8/23/2011                | 8/25/2011              | 2                      |
| Conimicut Point Beach         | Warwick          | closure            | 6/2/2011                 | 6/4/2011               | 2                      |
| Conimicut Point Beach         | Warwick          | closure            | 6/14/2011                | 6/16/2011              | 2                      |
| Conimicut Point Beach         | Warwick          | closure            | 6/23/2011                | 6/28/2011              | 5                      |
| Conimicut Point Beach         | Warwick          | closure            | 8/5/2011                 | 8/6/2011               | 1                      |
| Conimicut Point Beach         | Warwick          | closure            | 8/19/2011                | 8/20/2011              | 1                      |
| Conimicut Point Beach         | Warwick          | closure            | 8/23/2011                | 8/25/2011              | 2                      |
| Easton's Beach                | Newport          | closure            | 6/24/2011                | 6/25/2011              | 1                      |
| Easton's Beach                | Newport          | closure            | 8/15/2011                | 8/16/2011              | 1                      |
| Fort Adams State Park         | Newport          | closure            | 8/31/2011                | 9/1/2011               | 1                      |
| Goddard Memorial State Park   | Warwick          | closure            | 6/14/2011                | 6/15/2011              | 1                      |
| Goddard Memorial State Park   | Warwick          | closure            | 6/23/2011                | 6/24/2011              | 1                      |
| Goddard Memorial State Park   | Warwick          | closure            | 8/16/2011                | 8/18/2011              | 2                      |
| Goddard Memorial State Park   | Warwick          | closure            | 8/23/2011                | 8/25/2011              | 2                      |
| King Park Beach               | Newport          | closure            | 7/15/2011                | 7/16/2011              | 1                      |
| Mackeral Cove Beach           | Jamestown        | closure            | 8/31/2011                | 9/1/2011               | 1                      |
| Oakland Beach                 | Warwick          | closure            | 6/23/2011                | 6/28/2011              | 5                      |
| Oakland Beach                 | Warwick          | closure            | 8/2/2011                 | 8/4/2011               | 2                      |
| Oakland Beach                 | Warwick          | closure            | 8/5/2011                 | 8/6/2011               | 1                      |
| Oakland Beach                 | Warwick          | closure            | 8/19/2011                | 8/25/2011              | 6                      |
| Peabody's Beach               | Middletown       | closure            | 6/23/2011                | 6/26/2011              | 3                      |
| Sandy Point Beach             | Portsmouth       | closure            | 6/15/2011                | 6/16/2011              | 1                      |
| Scarborough State Beach North | Narragansett     | closure            | 8/15/2011                | 8/17/2011              | 2                      |
| Scarborough State Beach South | Narragansett     | closure            | 8/15/2011                | 8/17/2011              | 2                      |
| Third Beach                   | Middletown       | closure            | 6/14/2011                | 6/16/2011              | 2                      |
| Third Beach                   | Middletown       | closure            | 6/24/2011                | 6/26/2011              | 2                      |
| Third Beach                   | Middletown       | closure            | 7/15/2011                | 7/16/2011              | 1                      |
| Third Beach                   | Middletown       | closure            | 8/15/2011                | 8/18/2011              | 3                      |
| Warren Town Beach             | Warren           | closure            | 8/16/2011                | 8/17/2011              | 1                      |

**Total 74**

**Appendix G**  
2011 Meteorological Data

2011 Meteorological Data

| Date      | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|-----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 5/27/2011 | Precipitation (in)       | T               | 3.91            | 0.01            | 0.00            | 0.00            | 0.01                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 7.0             | --              | 1.0             | 6.0             | 2.4             | 3.0                   | 2.5             | --              | 0.3             | 2.0             | 1.9             |
|           | Wind Direction           | SSE             | --              | SE              | S               | SSW             | S                     | SW              | --              | WSW             | S               | SE              |
|           | Air Temp (F)             | 70.0            | 67.6            | 64.8            | 67.0            | 72.9            | 67.0                  | 67.2            | 64.6            | 73.8            | 72.5            | 73.8            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 9:50            | 9:56            | 10:07           | 9:56            | 9:50            | 11:12                 | 9:55            | 10:09           | --              | --              | --              |
|           | Tide - PM low            | 11:04           | 11:10           | 11:21           | 11:10           | 11:04           | N/A                   | 11:09           | 11:23           | --              | --              | --              |
|           | Tide - AM high           | 4:35            | 4:41            | 4:17            | 4:28            | 4:31            | 5:09                  | 4:28            | 4:19            | --              | --              | --              |
|           | Tide - PM high           | 5:01            | 5:07            | 4:43            | 4:54            | 4:57            | 5:35                  | 4:54            | 4:45            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 5/28/2011 | Precipitation (in)       | T               | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.01            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 9.0             | --              | 1.8             | 8.0             | 2.7             | 7.0                   | 2.9             | --              | 0.6             | 1.7             | 1.9             |
|           | Wind Direction           | S               | --              | S               | S               | SW              | S                     | SW              | --              | WSW             | S               | SSE             |
|           | Air Temp (F)             | 70.0            | --              | 68.5            | 67.0            | 73.0            | 68.0                  | 67.3            | 65.3            | 72.0            | 70.3            | 73.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 77.0            | --              | --              |
|           | Tide - AM low            | 10:33           | 10:39           | 10:50           | 10:39           | 10:33           | 12:26                 | 10:38           | 10:52           | --              | --              | --              |
|           | Tide - PM low            | 11:44           | 11:50           | N/A             | 11:50           | 11:44           | 11:55AM               | 11:49           | N/A             | --              | --              | --              |
|           | Tide - AM high           | 5:26            | 5:32            | 5:08            | 5:19            | 5:22            | 6:00                  | 5:19            | 5:10            | --              | --              | --              |
|           | Tide - PM high           | 5:49            | 5:55            | 5:31            | 5:42            | 5:45            | 6:23                  | 5:42            | 5:33            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 5/29/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 9.0             | --              | 1.4             | 7.0             | 2.8             | 4.0                   | 2.6             | --              | 1.2             | 1.8             | 2.0             |
|           | Wind Direction           | S               | --              | SW              | S               | SW              | SSW                   | SW              | --              | WSW             | S               | S               |
|           | Air Temp (F)             | --              | --              | 66.9            | 67.0            | 71.8            | 67.0                  | 66.1            | 63.7            | 73.5            | 71.2            | 73.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | 73.4            | --              |
|           | Tide - AM low            | 11:15           | 11:21           | 12:01           | 11:21           | 11:15           | 1:06                  | 11:20           | 12:03           | --              | --              | --              |
|           | Tide - PM low            | N/A             | N/A             | 11:31AM         | N/A             | N/A             | 12:37                 | N/A             | 11:34AM         | --              | --              | --              |
|           | Tide - AM high           | 6:13            | 6:19            | 5:55            | 6:06            | 6:09            | 6:47                  | 6:06            | 5:57            | --              | --              | --              |
|           | Tide - PM high           | 6:32            | 6:38            | 6:14            | 6:25            | 6:28            | 7:06                  | 6:25            | 6:16            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 5/30/2011 | Precipitation (in)       | T               | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 5.0             | --              | 1.8             | 6.0             | 0.8             | 4.0                   | 1.4             | --              | 0.3             | 0.3             | 0.9             |
|           | Wind Direction           | SSW             | --              | W               | SW              | SW              | SW                    | WNW             | --              | WSW             | W               | WNW             |
|           | Air Temp (F)             | 76.0            | --              | 68.1            | 72.0            | 74.8            | 71.0                  | 70.6            | 67.7            | 75.5            | 73.8            | 75.7            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 12:25           | 12:31           | 12:42           | 12:31           | 12:25           | 1:47                  | 12:30           | 12:44           | --              | --              | --              |
|           | Tide - PM low            | 11:57AM         | 12:03           | 12:14           | 12:03           | 11:57AM         | 1:19                  | 12:02           | 12:16           | --              | --              | --              |
|           | Tide - AM high           | 6:56            | 7:02            | 6:38            | 6:49            | 6:52            | 7:30                  | 6:49            | 6:40            | --              | --              | --              |
|           | Tide - PM high           | 7:11            | 7:17            | 6:53            | 7:04            | 7:07            | 7:45                  | 7:04            | 6:55            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 5/31/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 9.0             | --              | 1.2             | 5.0             | 1.8             | 4.0                   | 1.2             | --              | 0.4             | 0.6             | 2.0             |
|           | Wind Direction           | ENE             | --              | NNE             | E               | ESE             | ENE                   | SSE             | --              | NE              | NE              | ENE             |
|           | Air Temp (F)             | 73.0            | 70.9            | 71.1            | 70.0            | 76.3            | 72.0                  | 72.8            | 71.4            | 75.9            | 73.5            | 74.8            |
|           | Water Temp (F)           | --              | --              | 61.7            | --              | 66.5            | 59.0                  | 77.0            | --              | --              | --              | --              |
|           | Tide - AM low            | 1:07            | 1:13            | 1:24            | 1:13            | 1:07            | 2:29                  | 1:12            | 1:26            | --              | --              | --              |
|           | Tide - PM low            | 12:38           | 12:44           | 12:55           | 12:44           | 12:38           | 2:00                  | 12:43           | 12:57           | --              | --              | --              |
|           | Tide - AM high           | 7:36            | 7:42            | 7:18            | 7:29            | 7:32            | 8:10                  | 7:29            | 7:20            | --              | --              | --              |
|           | Tide - PM high           | 7:49            | 7:55            | 7:31            | 7:42            | 7:45            | 8:23                  | 7:42            | 7:33            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/1/2011  | Precipitation (in)       | T               | 0.00            | 0.15            | 0.01            | 0.00            | 0.32                  | 0.00            | 0.00            | 0.07            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 1.3             | --              | 2.3             | 9.0             | 3.6             | 7.0                   | 4.1             | --              | 1.3             | 3.0             | 2.3             |
|           | Wind Direction           | SSW             | --              | SSW             | S               | SW              | SSW                   | SSW             | --              | WSW             | S               | SE              |
|           | Air Temp (F)             | 68.2            | 66.3            | 65.8            | 64.0            | 68.8            | 66.0                  | 64.8            | 63.8            | 70.5            | 67.9            | 71.0            |
|           | Water Temp (F)           | 70.0            | 68.8            | 64.2            | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 1:49            | 1:55            | 2:06            | 1:55            | 1:49            | 3:11                  | 1:54            | 2:08            | --              | --              | --              |
|           | Tide - PM low            | 1:20            | 1:26            | 1:37            | 1:26            | 1:20            | 2:42                  | 1:25            | 1:39            | --              | --              | --              |
|           | Tide - AM high           | 8:17            | 8:23            | 7:59            | 8:10            | 8:13            | 8:51                  | 8:10            | 8:01            | --              | --              | --              |
|           | Tide - PM high           | 8:27            | 8:33            | 8:09            | 8:20            | 8:23            | 9:01                  | 8:20            | 8:11            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/2/2011  | Precipitation (in)       | 0.00            | 0.00            | 0.01            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 2.0             | --              | 7.8             | 6.0             | 2.0             | 3.0                   | 4.8             | --              | 1.1             | 2.1             | 2.8             |
|           | Wind Direction           | WSW             | --              | WNW             | WNW             | W               | W                     | NNW             | --              | WSW             | NNW             | W               |
|           | Air Temp (F)             | 65.8            | 67.3            | 66.1            | 66.0            | 69.3            | 68.0                  | 64.4            | 65.8            | 66.4            | 63.4            | 65.1            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 2:31            | 2:37            | 2:48            | 2:37            | 2:31            | 3:53                  | 2:36            | 2:50            | --              | --              | --              |
|           | Tide - PM low            | 2:02            | 2:08            | 2:19            | 2:08            | 2:02            | 3:24                  | 2:07            | 2:21            | --              | --              | --              |
|           | Tide - AM high           | 8:58            | 9:04            | 8:40            | 8:51            | 8:54            | 9:32                  | 8:51            | 8:42            | --              | --              | --              |
|           | Tide - PM high           | 9:07            | 9:13            | 8:49            | 9:00            | 9:03            | 9:41                  | 9:00            | 8:51            | --              | --              | --              |
|           | Lunar cycle              | New Moon              | New Moon        | New Moon        | New Moon        | New Moon        | New Moon        |

2011 Meterological Data

| Date     | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 6/3/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 10.0            | --              | 6.2             | 9.0             | 1.6             | 6.0                   | 3.5             | --              | 0.3             | 1.9             | 2.9             |
|          | Wind Direction           | NW              | --              | NW              | NW              | WNW             | NW                    | N               | --              | NE              | N               | NW              |
|          | Air Temp (F)             | 61.0            | 62.5            | 60.3            | 60.0            | 62.6            | 63.0                  | 58.5            | 60.0            | 61.0            | 58.0            | 59.4            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 3:10            | 3:16            | 3:27            | 3:16            | 3:10            | 4:32                  | 3:15            | 3:29            | --              | --              | --              |
|          | Tide - PM low            | 2:44            | 2:50            | 3:01            | 2:50            | 2:44            | 4:06                  | 2:49            | 0.1             | --              | --              | --              |
|          | Tide - AM high           | 9:41            | 9:47            | 9:23            | 9:34            | 9:37            | 10:15                 | 9:34            | 9:25            | --              | --              | --              |
|          | Tide - PM high           | 9:50            | 9:57            | 9:32            | 9:43            | 9:46            | 10:24                 | 9:43            | 0.4             | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 6/4/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 9.0             | --              | 2.6             | 4.0             | 1.3             | 4.0                   | 1.6             | --              | 0.5             | 0.9             | 2.8             |
|          | Wind Direction           | NNE             | --              | NW              | NE              | E               | E                     | N               | --              | NE              | NNE             | ENE             |
|          | Air Temp (F)             | 61.0            | 61.3            | 60.0            | 60.0            | 63.6            | 60.0                  | 58.1            | 59.2            | 60.4            | 58.7            | 58.4            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 74.3            | --              | --              |
|          | Tide - AM low            | 3:47            | 3:53            | 4:04            | 3:53            | 3:47            | 5:09                  | 3:52            | 4:06            | --              | --              | --              |
|          | Tide - PM low            | 3:27            | 3:33            | 3:44            | 3:33            | 3:27            | 4:49                  | 3:32            | 3:46            | --              | --              | --              |
|          | Tide - AM high           | 10:26           | 10:32           | 10:08           | 10:19           | 10:22           | 11:00                 | 10:19           | 10:10           | --              | --              | --              |
|          | Tide - PM high           | 10:36           | 10:42           | 10:18           | 10:29           | 10:32           | 11:10                 | 10:29           | 10:20           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 6/5/2011 | Precipitation (in)       | 0.02            | 0.00            | 0.02            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.02            | 0.04            | 0.01            |
|          | Wind Speed (mph)         | 6.0             | --              | 0.7             | 2.0             | 1.1             | 4.0                   | 1.5             | --              | 0.3             | 0.8             | 1.0             |
|          | Wind Direction           | S               | --              | SSE             | S               | S               | S                     | SSW             | --              | WSW             | SSE             | SSE             |
|          | Air Temp (F)             | 58.0            | 58.3            | 57.1            | 62.0            | 60.4            | 53.0                  | 54.8            | 56.2            | 59.9            | 57.3            | 58.7            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 69.4            | 69.8            | --              |
|          | Tide - AM low            | 4:24            | 4:30            | 4:41            | 4:30            | 4:24            | 5:46                  | 4:29            | 4:43            | --              | --              | --              |
|          | Tide - PM low            | 4:13            | 4:19            | 4:30            | 4:19            | 4:13            | 5:35                  | 4:18            | 4:32            | --              | --              | --              |
|          | Tide - AM high           | 11:15           | 11:21           | 10:57           | 11:08           | 11:11           | 11:49                 | 11:08           | 10:59           | --              | --              | --              |
|          | Tide - PM high           | 11:25           | 11:31           | 11:07           | 11:18           | 11:21           | 11:59                 | 11:18           | 11:09           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 6/6/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.01            | 0.00            |
|          | Wind Speed (mph)         | 6.0             | --              | 0.4             | 3.0             | 1.1             | 3.0                   | 1.2             | --              | 0.2             | 0.5             | 1.5             |
|          | Wind Direction           | SE              | --              | SW              | SSW             | SSE             | SSW                   | WSW             | --              | NE              | N               | NE              |
|          | Air Temp (F)             | 66.0            | 65.8            | 58.9            | 64.0            | 68.1            | 65.0                  | 64.0            | 64.2            | 67.3            | 64.9            | 67.6            |
|          | Water Temp (F)           | 69.4            | 65.0            | 63.2            | 63.5            | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 5:03            | 5:09            | 5:20            | 5:09            | 5:03            | 6:25                  | 5:08            | 5:22            | --              | --              | --              |
|          | Tide - PM low            | 5:02            | 5:08            | 5:19            | 5:08            | 5:02            | 6:24                  | 5:07            | 5:21            | --              | --              | --              |
|          | Tide - AM high           | --              | --              | 11:47           | --              | 11:58           | --                    | --              | 11:49           | --              | --              | --              |
|          | Tide - PM high           | 12:05           | 12:11           | 11:59           | --              | 12:01           | 12:39                 | --              | --              | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 6/7/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.01            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 4.0             | --              | 0.6             | 4.0             | 0.6             | 2.0                   | 1.3             | --              | 0.1             | 0.4             | 1.3             |
|          | Wind Direction           | S               | --              | SW              | SSW             | SSW             | WSW                   | WSW             | --              | SW              | NW              | NW              |
|          | Air Temp (F)             | 71.0            | 70.2            | 69.3            | 68.0            | 74.3            | 66.0                  | 69.2            | 67.3            | 74.1            | 70.8            | 70.0            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | 59.8                  | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 5:46            | 5:52            | 6:03            | 5:52            | 5:46            | 7:08                  | 5:51            | 6:05            | --              | --              | --              |
|          | Tide - PM low            | 5:58            | 6:04            | 6:15            | 6:04            | 5:58            | 7:20                  | 6:03            | 6:17            | --              | --              | --              |
|          | Tide - AM high           | 12:27           | 12:23           | --              | 12:10           | 12:13           | 12:51                 | 12:10           | 12:01           | --              | --              | --              |
|          | Tide - PM high           | 12:57           | 1:03            | 12:39           | 12:50           | 12:53           | 1:31                  | 12:50           | 12:41           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 6/8/2011 | Precipitation (in)       | T               | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.01            | 0.00            | 0.16            |
|          | Wind Speed (mph)         | 5.0             | --              | 2.7             | 2.0             | 0.8             | 2.0                   | 1.2             | --              | 0.3             | 0.3             | 1.2             |
|          | Wind Direction           | WSW             | --              | W               | WSW             | SW              | WSW                   | WNW             | --              | WSW             | ENE             | W               |
|          | Air Temp (F)             | 78.0            | 76.0            | 76.0            | 76.0            | 81.2            | 74.0                  | 75.5            | 71.8            | 80.0            | 76.3            | 78.8            |
|          | Water Temp (F)           | 62              | 71.8            | 67.0            | 67.2            | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 6:36            | 6:42            | 6:53            | 6:42            | 6:36            | 7:58                  | 6:41            | 6:55            | --              | --              | --              |
|          | Tide - PM low            | 7:06            | 7:12            | 7:23            | 7:12            | 7:06            | 8:28                  | 7:11            | 7:25            | --              | --              | --              |
|          | Tide - AM high           | 1:12            | 1:18            | 12:54           | 1:05            | 1:08            | 1:46                  | 1:05            | 12:56           | --              | --              | --              |
|          | Tide - PM high           | 1:51            | 1:57            | 1:33            | 1:44            | 1:47            | 2:25                  | 1:44            | 1:35            | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 6/9/2011 | Precipitation (in)       | 0.64            | 0.60            | 0.42            | 0.46            | 0.51            | 0.38                  | 0.37            | 0.43            | 0.68            | 1.01            | 0.58            |
|          | Wind Speed (mph)         | 9.0             | 2.5             | 3.9             | 5.0             | 1.3             | 6.0                   | 2.2             | --              | 0.6             | 0.8             | 1.3             |
|          | Wind Direction           | WSW             | WSW             | WNW             | W               | SW              | WSW                   | WNW             | --              | WSW             | SSW             | WSW             |
|          | Air Temp (F)             | 78.0            | 77.7            | 73.6            | 73.0            | 75.3            | 74.0                  | 72.7            | 71.4            | 74.3            | 72.0            | 74.3            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | 62.1                  | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 7:36            | 7:42            | 7:53            | 7:42            | 7:36            | 8:58                  | 7:41            | 7:55            | --              | --              | --              |
|          | Tide - PM low            | 8:30            | 8:36            | 8:47            | 8:36            | 8:30            | 9:52                  | 8:35            | 8:49            | --              | --              | --              |
|          | Tide - AM high           | 2:08            | 2:14            | 1:50            | 2:01            | 2:04            | 2:42                  | 2:01            | 1:52            | --              | --              | --              |
|          | Tide - PM high           | 2:48            | 2:54            | 2:30            | 2:41            | 2:44            | 3:22                  | 2:41            | 2:32            | --              | --              | --              |
|          | Lunar cycle              | First Quarter         | First Quarter   | First Quarter   | First Quarter   | First Quarter   | First Quarter   |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick        | Bristol        | Narragansett   | Newport        | North Kingstown | Westerly - Watch Hill | Tiverton       | Little Compton | Johnston       | Coventry       | Cumberland     |
|-----------|--------------------------|----------------|----------------|----------------|----------------|-----------------|-----------------------|----------------|----------------|----------------|----------------|----------------|
| 6/10/2011 | Precipitation (in)       | 0.06           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00                  | 0.25           | 0.00           | 0.00           | 0.00           | 0.01           |
|           | Wind Speed (mph)         | 7.0            | 0.4            | 3.0            | 6.0            | 0.9             | 6.0                   | 2.2            | --             | 0.2            | 0.8            | 2.3            |
|           | Wind Direction           | SE             | W              | WNW            | SE             | S               | SE                    | ESE            | --             | NE             | ESE            | E              |
|           | Air Temp (F)             | 72.0           | 66.0           | 70.0           | 70.0           | 73.1            | 72.0                  | 68.1           | 69.3           | 71.8           | 70.9           | 70.7           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | 80.6           | --             | --             |
|           | Tide - AM low            | 8:40           | 8:46           | 8:57           | 8:46           | 8:40            | 10:02                 | 8:45           | 8:59           | --             | --             | --             |
|           | Tide - PM low            | 9:51           | 9:57           | 10:08          | 9:57           | 9:51            | 11:13                 | 9:56           | 10:10          | --             | --             | --             |
|           | Tide - AM high           | 3:07           | 3:13           | 2:49           | 3:00           | 3:03            | 3:41                  | 3:00           | 2:51           | --             | --             | --             |
|           | Tide - PM high           | 3:48           | 3:54           | 3:30           | 3:41           | 3:44            | 4:22                  | 3:41           | 3:32           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 6/11/2011 | Precipitation (in)       | 0.26           | --             | 0.00           | 0.14           | 0.20            | 0.82                  | 0.13           | 0.20           | 0.27           | 0.32           | 0.50           |
|           | Wind Speed (mph)         | 8.0            | --             | 0.8            | 7.0            | 2.0             | 10.0                  | 3.5            | --             | 0.5            | 0.6            | 2.9            |
|           | Wind Direction           | E              | --             | E              | E              | E               | E                     | SE             | --             | NE             | E              | E              |
|           | Air Temp (F)             | 60.0           | --             | 61.7           | 58.0           | 60.3            | 60.0                  | 57.9           | 58.4           | 59.6           | 59.0           | 59.4           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | 73.6           | --             | 71.6           |
|           | Tide - AM low            | 9:40           | 9:46           | 9:57           | 9:46           | 9:40            | 11:02                 | 9:45           | 9:59           | --             | --             | --             |
|           | Tide - PM low            | 10:56          | 11:02          | 11:13          | 11:02          | 10:56           | --                    | 11:01          | 11:15          | --             | --             | --             |
|           | Tide - AM high           | 4:10           | 4:16           | 3:52           | 4:03           | 4:06            | 4:44                  | 4:03           | 3:54           | --             | --             | --             |
|           | Tide - PM high           | 4:49           | 4:55           | 4:31           | 4:42           | 4:45            | 5:23                  | 4:42           | 4:33           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 6/12/2011 | Precipitation (in)       | 1.64           | 1.67           | 0.79           | 0.89           | 1.10            | 0.91                  | 1.00           | 0.79           | 0.84           | 1.41           | 0.93           |
|           | Wind Speed (mph)         | 11.0           | 6.6            | 7.7            | 7.0            | 0.8             | 8.0                   | 1.4            | --             | 1.0            | 1.1            | 3.0            |
|           | Wind Direction           | NNE            | NNE            | NNE            | NNE            | NNE             | NNE                   | NE             | --             | NE             | N              | NNE            |
|           | Air Temp (F)             | 57.0           | 56.7           | 58.7           | 58.0           | 59.3            | 60.0                  | 55.0           | 57.1           | 55.7           | 56.2           | 55.3           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 10:35          | 10:41          | 10:52          | 10:41          | 10:35           | 12:18                 | 10:40          | 10:54          | --             | --             | --             |
|           | Tide - PM low            | 11:53          | 11:59          | --             | 11:59          | 11:53           | 11:57am               | 11:58          | --             | --             | --             | --             |
|           | Tide - AM high           | 5:14           | 5:20           | 4:56           | 5:07           | 5:10            | 5:48                  | 5:07           | 4:58           | --             | --             | --             |
|           | Tide - PM high           | 5:50           | 5:56           | 5:32           | 5:43           | 5:46            | 6:24                  | 5:43           | 5:34           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 6/13/2011 | Precipitation (in)       | 0.02           | 0.00           | 0.00           | 0.00           | 0.00            | 0.04                  | 0.00           | 0.00           | 0.07           | 0.04           | 0.05           |
|           | Wind Speed (mph)         | 4.0            | 1.8            | 0.0            | 4.0            | 1.0             | 4.0                   | 1.1            | --             | 0.2            | 0.3            | 1.8            |
|           | Wind Direction           | E              | E              | ESE            | ESE            | SE              | SE                    | SE             | --             | NE             | ESE            | E              |
|           | Air Temp (F)             | 61.0           | 63.3           | 58.9           | 67.2           | 62.0            | 60.0                  | 54.4           | 58.8           | 60.2           | 60.0           | 59.7           |
|           | Water Temp (F)           | 66.4           | 64.6           | 61.0           | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 11:26          | 11:32          | 12:10          | 11:32          | 11:26           | 1:15                  | 11:31          | 12:12          | --             | --             | --             |
|           | Tide - PM low            | --             | --             | 11:43am        | --             | --              | 12:48                 | --             | 11:45am        | --             | --             | --             |
|           | Tide - AM high           | 6:15           | 6:21           | 5:57           | 6:08           | 6:11            | 6:49                  | 6:08           | 5:59           | --             | --             | --             |
|           | Tide - PM high           | 6:47           | 6:53           | 6:29           | 6:40           | 6:43            | 7:21                  | 6:40           | 6:31           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 6/14/2011 | Precipitation (in)       | 0.02           | --             | 0.01           | 0.01           | 0.00            | 0.00                  | 0.01           | 0.00           | 0.02           | 0.01           | 0.06           |
|           | Wind Speed (mph)         | 8.0            | --             | 1.6            | 6.0            | 1.0             | 5.0                   | 0.9            | --             | 0.7            | 0.7            | 2.1            |
|           | Wind Direction           | NNE            | --             | NNW            | NNE            | NE              | NE                    | NNE            | --             | NE             | N              | N              |
|           | Air Temp (F)             | 59.0           | --             | 58.6           | 57.0           | 59.4            | 59.0                  | 55.9           | 57.0           | 57.7           | 57.6           | 57.5           |
|           | Water Temp (F)           | --             | --             | 63.4           | --             | 65.8            | 60.8                  | 63.5           | --             | --             | 67.1           | --             |
|           | Tide - AM low            | 12:46          | 12:52          | 1:03           | 12:52          | 12:46           | 2:08                  | 12:51          | 1:05           | --             | --             | --             |
|           | Tide - PM low            | 12:17          | 12:23          | 12:34          | 12:23          | 12:17           | 1:39                  | 12:22          | 12:36          | --             | --             | --             |
|           | Tide - AM high           | 7:11           | 7:17           | 6:53           | 7:04           | 7:07            | 7:45                  | 7:04           | 6:55           | --             | --             | --             |
|           | Tide - PM high           | 7:40           | 7:46           | 7:22           | 7:33           | 7:36            | 8:14                  | 7:33           | 7:24           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 6/15/2011 | Precipitation (in)       | 0.00           | --             | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 9.0            | --             | 2.9            | 6.0            | 1.3             | 4.0                   | 1.6            | --             | 0.4            | 0.7            | 2.5            |
|           | Wind Direction           | NNW            | --             | NW             | NNW            | ENE             | WNW                   | N              | --             | NE             | N              | ENE            |
|           | Air Temp (F)             | 65.0           | --             | 63.1           | 63.0           | 64.8            | 64.0                  | 61.8           | 62.8           | 64.2           | 63.0           | 63.6           |
|           | Water Temp (F)           | 66.5           | --             | 61.8           | 63.5           | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 1:38           | 1:44           | 1:55           | 1:44           | 1:38            | 3:00                  | 1:43           | 1:57           | --             | --             | --             |
|           | Tide - PM low            | 1:08           | 1:14           | 1:25           | 1:14           | 1:08            | 2:30                  | 1:13           | 1:27           | --             | --             | --             |
|           | Tide - AM high           | 8:03           | 8:09           | 7:45           | 7:56           | 7:59            | 8:37                  | 7:56           | 7:47           | --             | --             | --             |
|           | Tide - PM high           | 8:30           | 8:36           | 8:12           | 8:23           | 8:26            | 9:04                  | 8:23           | 8:14           | --             | --             | --             |
|           | Lunar cycle              | Full Moon       | Full Moon             | Full Moon      | Full Moon      | Full Moon      | Full Moon      | Full Moon      |
| 6/16/2011 | Precipitation (in)       | 0.00           | --             | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 8.0            | --             | 2.3            | 3.0            | 1.7             | 3.0                   | 2.2            | --             | 0.9            | 0.4            | 1.4            |
|           | Wind Direction           | SW             | --             | W              | SSW            | SW              | WSW                   | W              | --             | WSW            | SSW            | WSW            |
|           | Air Temp (F)             | 70.0           | --             | 68.4           | 66.0           | 76.6            | 64.0                  | 66.6           | 64.8           | 72.0           | 66.7           | 71.5           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | 63.1           | 77.0           | --             | --             |
|           | Tide - AM low            | 2:26           | 2:32           | 2:43           | 2:32           | 2:26            | 3:48                  | 2:31           | 2:45           | --             | --             | --             |
|           | Tide - PM low            | 1:58           | 2:04           | 2:15           | 2:04           | 1:58            | 3:20                  | 2:03           | 2:17           | --             | --             | --             |
|           | Tide - AM high           | 8:54           | 9:00           | 8:36           | 8:47           | 8:50            | 9:28                  | 8:47           | 8:38           | --             | --             | --             |
|           | Tide - PM high           | 9:19           | 9:25           | 9:01           | 9:12           | 9:15            | 9:53                  | 9:12           | 9:03           | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick        | Bristol        | Narragansett   | Newport        | North Kingstown | Westerly - Watch Hill | Tiverton       | Little Compton | Johnston       | Coventry       | Cumberland     |
|-----------|--------------------------|----------------|----------------|----------------|----------------|-----------------|-----------------------|----------------|----------------|----------------|----------------|----------------|
| 6/17/2011 | Precipitation (in)       | 0.43           | 0.14           | 1.10           | 0.80           | 0.55            | 0.52                  | 0.78           | 0.98           | 0.14           | 0.32           | 0.22           |
|           | Wind Speed (mph)         | 9.0            | 1.8            | 1.4            | 8.0            | 1.9             | 6.0                   | 2.8            | --             | 0.7            | 1.4            | 1.5            |
|           | Wind Direction           | S              | SSW            | S              | SSW            | SSW             | S                     | SSW            | --             | WSW            | S              | SSE            |
|           | Air Temp (F)             | 67.0           | 66.6           | 65.4           | 65.0           | 65.4            | 64.0                  | 64.2           | 63.6           | 66.9           | 64.2           | 67.0           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 3:10           | 3:16           | 3:27           | 3:16           | 3:10            | 4:32                  | 3:15           | 3:29           | --             | --             | --             |
|           | Tide - PM low            | 2:48           | 2:54           | 3:05           | 2:54           | 2:48            | 4:10                  | 2:53           | 3:07           | --             | --             | --             |
|           | Tide - AM high           | 9:40           | 9:49           | 9:25           | 9:36           | 9:39            | 10:17                 | 9:36           | 9:27           | --             | --             | --             |
|           | Tide - PM high           | 10:08          | 10:14          | 9:50           | 10:01          | 10:04           | 10:42                 | 10:01          | 9:52           | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 6/18/2011 | Precipitation (in)       | 0.00           | 1.69           | 0.00           | 0.00           | 0.04            | 0.00                  | 0.01           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 7.0            | 1.4            | 1.9            | 4.0            | 0.9             | 4.0                   | 2.0            | --             | 0.4            | 0.4            | 1.1            |
|           | Wind Direction           | WSW            | SSE            | W              | SSW            | WSW             | SW                    | W              | --             | WSW            | SW             | W              |
|           | Air Temp (F)             | 74.0           | 78.0           | 69.5           | 68.0           | 73.8            | 70.0                  | 68.2           | 65.5           | 72.4           | 70.7           | 71.4           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | 72.9           | --             | --             |
|           | Tide - AM low            | 3:48           | 3:54           | 4:05           | 3:54           | 3:48            | 5:10                  | 3:53           | 4:07           | --             | --             | --             |
|           | Tide - PM low            | 3:35           | 3:41           | 3:52           | 3:41           | 3:35            | 4:57                  | 3:40           | 3:54           | --             | --             | --             |
|           | Tide - AM high           | 10:32          | 10:38          | 10:14          | 10:25          | 10:28           | 11:06                 | 10:25          | 10:16          | --             | --             | --             |
|           | Tide - PM high           | 10:56          | 11:02          | 10:38          | 10:49          | 10:52           | 11:30                 | 10:49          | 10:40          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 6/19/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 7.0            | 3.2            | 0.7            | 4.0            | 0.7             | 3.0                   | 1.6            | --             | 0.1            | 0.4            | 1.5            |
|           | Wind Direction           | NW             | N              | WNW            | WNW            | NNW             | N                     | NNW            | --             | NE             | N              | NW             |
|           | Air Temp (F)             | 69.0           | 74.7           | 69.2           | 68.0           | 71.8            | 68.0                  | 67.4           | 67.7           | 71.2           | 66.9           | 70.0           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | 71.6           | --             |
|           | Tide - AM low            | 4:24           | 4:30           | 4:41           | 4:30           | 4:24            | 5:46                  | 4:29           | 4:43           | --             | --             | --             |
|           | Tide - PM low            | 4:21           | 4:27           | 4:38           | 4:27           | 4:21            | 5:43                  | 4:26           | 4:40           | --             | --             | --             |
|           | Tide - AM high           | 11:21          | 11:27          | 11:03          | 11:14          | 11:17           | 11:55                 | 11:14          | 11:05          | --             | --             | --             |
|           | Tide - PM high           | 11:43          | 11:49          | 11:25          | 11:36          | 11:39           | --                    | 11:36          | 11:27          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 6/20/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.01                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 5.0            | 1.8            | 0.6            | 3.0            | 1.1             | 3.0                   | 1.3            | --             | 0.3            | 0.3            | 0.9            |
|           | Wind Direction           | WSW            | NW             | W              | WSW            | SSW             | SE                    | WNW            | --             | WSW            | N              | WNW            |
|           | Air Temp (F)             | 68.0           | 70.9           | 62.0           | 64.0           | 68.1            | 58.0                  | 65.2           | 65.2           | 66.5           | 64.8           | 68.3           |
|           | Water Temp (F)           | 68.7           | 65.0           | 64.0           | --             | --              | --                    | --             | --             | 77.0           | --             | 75.2           |
|           | Tide - AM low            | 5:00           | 5:06           | 5:17           | 5:06           | 5:00            | 6:22                  | 5:05           | 5:19           | --             | --             | --             |
|           | Tide - PM low            | 5:08           | 5:14           | 5:25           | 5:14           | 5:08            | 6:30                  | 5:13           | 5:27           | --             | --             | --             |
|           | Tide - AM high           | --             | --             | 11:52          | --             | --              | 12:17                 | --             | 11:54          | --             | --             | --             |
|           | Tide - PM high           | 12:10          | 12:16          | --             | 12:03          | 12:06           | 12:44                 | 12:03          | --             | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 6/21/2011 | Precipitation (in)       | 0.00           | 0.00           | --             | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 6.0            | 1.6            | --             | 3.0            | 1.3             | 3.0                   | 2.1            | --             | 0.1            | 0.6            | 1.5            |
|           | Wind Direction           | S              | SSE            | --             | S              | S               | SE                    | SW             | --             | WNW            | SSE            | E              |
|           | Air Temp (F)             | 71.0           | 80.1           | --             | 67.0           | 72.3            | 58.0                  | 68.4           | 69.0           | 72.1           | 69.9           | 71.5           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | 75.2           |
|           | Tide - AM low            | 5:37           | 5:43           | 5:54           | 5:43           | 5:37            | 6:59                  | 5:42           | 5:56           | --             | --             | --             |
|           | Tide - PM low            | 5:58           | 6:04           | 6:15           | 6:04           | 5:58            | 7:20                  | 6:03           | 6:17           | --             | --             | --             |
|           | Tide - AM high           | 12:30          | 12:36          | 12:12          | 12:23          | 12:26           | 1:04                  | 12:23          | 12:14          | --             | --             | --             |
|           | Tide - PM high           | 12:57          | 1:03           | 12:39          | 12:50          | 12:53           | 1:31                  | 12:50          | 12:41          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 6/22/2011 | Precipitation (in)       | 0.35           | 0.08           | --             | 0.98           | 0.20            | 0.00                  | 0.25           | 1.02           | 0.69           | 0.35           | 1.01           |
|           | Wind Speed (mph)         | 4.0            | 0.0            | --             | 4.0            | 0.4             | 8.0                   | 1.6            | --             | 0.0            | 0.3            | 1.5            |
|           | Wind Direction           | SE             | SSE            | --             | SE             | SE              | E                     | SSE            | --             | WNW            | SE             | ESE            |
|           | Air Temp (F)             | 69.0           | 69.6           | --             | 67.0           | 67.9            | 54.0                  | 66.2           | 66.5           | 68.5           | 67.6           | 68.2           |
|           | Water Temp (F)           | 66.3           | 73.4           | --             | 66.2           | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 6:19           | 6:25           | 6:36           | 6:25           | 6:19            | 7:41                  | 6:24           | 6:38           | --             | --             | --             |
|           | Tide - PM low            | 6:57           | 7:03           | 7:14           | 7:03           | 6:57            | 8:19                  | 7:02           | 7:16           | --             | --             | --             |
|           | Tide - AM high           | 1:15           | 1:21           | 12:57          | 1:08           | 1:11            | 1:49                  | 1:08           | 12:59          | --             | --             | --             |
|           | Tide - PM high           | 1:43           | 1:49           | 1:25           | 1:36           | 1:39            | 2:17                  | 1:36           | 1:27           | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 6/23/2011 | Precipitation (in)       | 0.56           | 0.37           | 0.64           | 0.33           | 0.00            | 0.20                  | 0.43           | 0.43           | 0.23           | 0.56           | 0.26           |
|           | Wind Speed (mph)         | 10.0           | 0.2            | 0.6            | 7.0            | 0.2             | 9.0                   | 1.1            | --             | 0.8            | 0.9            | 2.5            |
|           | Wind Direction           | NNE            | N              | N              | N              | ENE             | SE                    | NNE            | --             | NE             | N              | NNE            |
|           | Air Temp (F)             | 65.0           | 64.9           | 61.9           | 64.0           | 62.6            | 54.0                  | 63.7           | 63.6           | 64.0           | 64.4           | 63.4           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 7:06           | 7:12           | 7:23           | 7:12           | 7:06            | 8:28                  | 7:11           | 7:25           | --             | --             | --             |
|           | Tide - PM low            | 8:11           | 8:17           | 8:28           | 8:17           | 8:11            | 9:33                  | 8:16           | 8:30           | --             | --             | --             |
|           | Tide - AM high           | 2:00           | 2:06           | 1:42           | 1:53           | 1:56            | 2:34                  | 1:53           | 1:44           | --             | --             | --             |
|           | Tide - PM high           | 2:28           | 2:34           | 2:10           | 2:21           | 2:24            | 3:02                  | 2:21           | 2:12           | --             | --             | --             |
|           | Lunar cycle              | Third Quarter   | Third Quarter         | Third Quarter  | Third Quarter  | Third Quarter  | Third Quarter  | Third Quarter  |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|-----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 6/24/2011 | Precipitation (in)       | T               | 0.00            | 0.00            | 0.00            | 0.00            | 0.64                  | 0.00            | 0.00            | 0.00            | 0.01            | 0.02            |
|           | Wind Speed (mph)         | 8.0             | 0.0             | 1.0             | 7.0             | 0.6             | 9.0                   | 0.3             | --              | 1.1             | 0.7             | 2.6             |
|           | Wind Direction           | NNE             | S               | N               | NNE             | ENE             | SW                    | ENE             | --              | NE              | N               | NE              |
|           | Air Temp (F)             | 64.0            | 63.6            | 63.4            | 64.0            | 64.7            | 64.0                  | 61.0            | 62.3            | 61.3            | 61.9            | 60.4            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 75.2            | --              | --              |
|           | Tide - AM low            | 7:59            | 8:05            | 8:16            | 8:05            | 7:59            | 9:21                  | 8:04            | 8:18            | --              | --              | --              |
|           | Tide - PM low            | 9:26            | 9:32            | 9:43            | 9:32            | 9:26            | 10:48                 | 9:31            | 9:45            | --              | --              | --              |
|           | Tide - AM high           | 2:46            | 2:52            | 2:28            | 2:39            | 2:42            | 3:20                  | 2:39            | 2:30            | --              | --              | --              |
|           | Tide - PM high           | 3:15            | 3:21            | 2:57            | 3:08            | 3:11            | 3:49                  | 3:08            | 2:59            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/25/2011 | Precipitation (in)       | 0.02            | 0.02            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.01            | 0.00            | 0.11            | 0.01            | 0.89            |
|           | Wind Speed (mph)         | 7.0             | 0.0             | 1.0             | 6.0             | 1.7             | 3.0                   | 1.3             | --              | 0.2             | 0.6             | 1.4             |
|           | Wind Direction           | ENE             | S               | NNE             | NNE             | SSW             | SE                    | WNW             | --              | NE              | NNE             | NNW             |
|           | Air Temp (F)             | 66.0            | 60.1            | 64.4            | 66.0            | 67.1            | 65.0                  | 61.1            | 64.0            | 65.1            | 64              | 63.7            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 8:55            | 9:01            | 9:12            | 9:01            | 8:55            | 10:17                 | 9:00            | 9:14            | --              | --              | --              |
|           | Tide - PM low            | 10:23           | 10:29           | 10:40           | 10:29           | 10:23           | 11:45                 | 10:28           | 10:42           | --              | --              | --              |
|           | Tide - AM high           | 3:36            | 3:42            | 3:18            | 3:29            | 3:32            | 4:10                  | 3:29            | 3:20            | --              | --              | --              |
|           | Tide - PM high           | 4:06            | 4:12            | 3:48            | 3:59            | 4:02            | 4:40                  | 3:59            | 3:50            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/26/2011 | Precipitation (in)       | T               | 0.00            | 0.01            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.01            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 5.0             | 0.0             | 1.0             | 5.0             | 0.5             | 4.0                   | 1.0             | --              | 0.1             | 0.4             | 0.6             |
|           | Wind Direction           | S               | S               | S               | S               | SSW             | SE                    | SW              | --              | NNE             | S               | SSW             |
|           | Air Temp (F)             | 70.0            | 73.7            | 67.4            | 66.0            | 73.1            | 60.0                  | 66.5            | 65.8            | 70.4            | 69.9            | 71.3            |
|           | Water Temp (F)           | 64.3            | --              | --              | --              | --              | --                    | --              | --              | --              | 70.7            | --              |
|           | Tide - AM low            | 9:48            | 9:54            | 10:05           | 9:54            | 9:48            | 11:10                 | 9:53            | 10:07           | --              | --              | --              |
|           | Tide - PM low            | 11:12           | 11:18           | 11:29           | 11:18           | 11:12           | --                    | 11:17           | 11:31           | --              | --              | --              |
|           | Tide - AM high           | 4:30            | 4:36            | 4:12            | 4:23            | 4:26            | 5:04                  | 4:23            | 4:14            | --              | --              | --              |
|           | Tide - PM high           | 5:59            | 5:05            | 4:41            | 4:52            | 4:55            | 5:33                  | 4:52            | 4:43            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/27/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 6.0             | 0.0             | 0.5             | 2.0             | 1.8             | 3.0                   | 1.3             | --              | 0.2             | 0.4             | 0.9             |
|           | Wind Direction           | SW              | S               | SW              | SSW             | SSW             | SW                    | W               | --              | NNW             | S               | NW              |
|           | Air Temp (F)             | 74.0            | 77.2            | 72.0            | 72.0            | 78.1            | 72.0                  | 71.1            | 70.7            | 74.8            | 71.9            | 74.2            |
|           | Water Temp (F)           | 73.2            | --              | 65.7            | 65.3            | --              | --                    | --              | --              | --              | --              | 73.4            |
|           | Tide - AM low            | 10:37           | 10:43           | 10:54           | 10:43           | 10:37           | 12:34                 | 10:42           | 10:56           | --              | --              | --              |
|           | Tide - PM low            | 11:58           | --              | --              | --              | 11:58           | 11:59am               | --              | --              | --              | --              | --              |
|           | Tide - AM high           | 5:26            | 5:32            | 5:08            | 5:19            | 5:22            | 6:00                  | 5:19            | 5:10            | --              | --              | --              |
|           | Tide - PM high           | 5:50            | 5:56            | 5:32            | 5:43            | 5:46            | 6:24                  | 5:43            | 5:34            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/28/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 6.0             | --              | 0.4             | 3.0             | 1.7             | 2.0                   | 1.4             | --              | 0.1             | 0.6             | 1.3             |
|           | Wind Direction           | SSE             | --              | ESE             | SSE             | SSW             | SSE                   | S               | --              | NW              | SSE             | SE              |
|           | Air Temp (F)             | 73.0            | --              | 70.6            | 70.0            | 76.7            | 70.0                  | 70.8            | 70.8            | 74.2            | 71.4            | 74.0            |
|           | Water Temp (F)           | 64.3            | --              | --              | --              | 65.2            | --                    | 70.8            | --              | --              | --              | --              |
|           | Tide - AM low            | 11:23           | 12:04           | 12:15           | 12:04           | 11:23           | 1:20                  | 12:03           | 12:17           | --              | --              | --              |
|           | Tide - PM low            | --              | 11:29am         | 11:40am         | 11:29am         | --              | 12:45                 | 11:28am         | 11:42           | --              | --              | --              |
|           | Tide - AM high           | 6:18            | 6:24            | 6:00            | 6:11            | 6:14            | 6:52                  | 6:11            | 6:02            | --              | --              | --              |
|           | Tide - PM high           | 6:37            | 6:43            | 6:19            | 6:30            | 6:33            | 7:11                  | 6:30            | 6:21            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/29/2011 | Precipitation (in)       | 0.04            | 0.12            | --              | 0.00            | 0.00            | 0.26                  | 0.04            | 0.00            | 0.05            | 0.03            | 0.00            |
|           | Wind Speed (mph)         | 8.0             | 0.0             | --              | 4.0             | 0.6             | 3.0                   | 1.8             | --              | 0.1             | 0.4             | 1.3             |
|           | Wind Direction           | WSW             | S               | --              | SSW             | WSW             | WSW                   | NW              | --              | W               | WSW             | WSW             |
|           | Air Temp (F)             | 76.0            | 80.7            | --              | 74.0            | 77.2            | 72.0                  | 72.8            | 71.8            | 74.8            | 73.5            | 74.1            |
|           | Water Temp (F)           | --              | 66.9            | --              | 72.7            | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 12:43           | 12:49           | 1:00            | 12:49           | 12:43           | 2:05                  | 12:48           | 1:02            | --              | --              | --              |
|           | Tide - PM low            | 12:09           | 12:15           | 12:26           | 12:15           | 12:09           | 1:31                  | 12:14           | 12:28           | --              | --              | --              |
|           | Tide - AM high           | 7:05            | 7:11            | 6:47            | 6:58            | 7:01            | 7:39                  | 6:58            | 6:49            | --              | --              | --              |
|           | Tide - PM high           | 7:21            | 7:27            | 7:03            | 7:14            | 7:17            | 7:55                  | 7:14            | 7:05            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 6/30/2011 | Precipitation (in)       | 0.00            | 0.00            | --              | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 8.00            | 0               | --              | 6               | 0.9             | 6                     | 3               | --              | 0.3             | 0.7             | 1.6             |
|           | Wind Direction           | WNW             | S               | --              | WNW             | W               | W                     | NNW             | --              | WSW             | NNW             | W               |
|           | Air Temp (F)             | 72              | 67.1            | --              | 71              | 74              | 70                    | 69.5            | 70.2            | 71.5            | 69.1            | 70.2            |
|           | Water Temp (F)           | --              | 66.9            | 66.2            | 65.3            | 65.8            | 60.8                  | 65.4            | 64.5            | --              | --              | --              |
|           | Tide - AM low            | 1:28            | 1:34            | 1:45            | 1:34            | 1:28            | 2:50                  | 1:33            | 1:47            | --              | --              | --              |
|           | Tide - PM low            | 12:55           | 1:01            | 1:12            | 1:01            | 12:55           | 2:17                  | 1:00            | 1:14            | --              | --              | --              |
|           | Tide - AM high           | 7:50            | 7:56            | 7:32            | 7:43            | 7:46            | 8:24                  | 7:43            | 7:34            | --              | --              | --              |
|           | Tide - PM high           | 8:04            | 8:10            | 7:46            | 7:57            | 8:00            | 8:38                  | 7:57            | 7:48            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |

2011 Meterological Data

| Date     | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 7/1/2011 | Precipitation (in)       | 0.03            | --              | --              | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 5.00            | --              | --              | 3.0             | 0.6             | 3.0                   | 0.9             | --              | 0               | 0.4             | 0.4             |
|          | Wind Direction           | W               | --              | --              | NW              | S               | NW                    | NW              | --              | WSW             | N               | N               |
|          | Air Temp (F)             | 69.0            | --              | --              | 67.0            | 71.1            | 66.0                  | 67.2            | 68.2            | 70.2            | 66.8            | 66.8            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 2:12            | 2:18            | 2:29            | 2:18            | 2:12            | 3:34                  | 2:17            | 2:31            | --              | --              | --              |
|          | Tide - PM low            | 1:42            | 1:48            | 1:59            | 1:48            | 1:42            | 3:04                  | 1:47            | 2:01            | --              | --              | --              |
|          | Tide - AM high           | 8:34            | 8:40            | 8:16            | 8:27            | 8:30            | 9:08                  | 8:27            | 8:18            | --              | --              | --              |
|          | Tide - PM high           | 8:47            | 8:53            | 8:29            | 8:40            | 8:43            | 9:21                  | 8:40            | 8:31            | --              | --              | --              |
|          | Lunar cycle              | New Moon              | New Moon        | New Moon        | New Moon        | New Moon        | New Moon        |
| 7/2/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 6.0             | --              | 0.2             | 3.0             | 1.3             | 2.0                   | 1.8             | --              | 0.1             | 0.5             | 0.5             |
|          | Wind Direction           | SSE             | --              | SE              | SSE             | S               | SSE                   | S               | --              | WSW             | S               | S               |
|          | Air Temp (F)             | 72.0            | --              | 69.5            | 68.0            | 73.4            | 68.0                  | 68.5            | 68.8            | 72.2            | 69.0            | 69.0            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 84.2            | 75.2            | --              |
|          | Tide - AM low            | 2:52            | 2:58            | 3:09            | 2:58            | 2:52            | 4:14                  | 2:57            | 3:11            | --              | --              | --              |
|          | Tide - PM low            | 2:29            | 2:35            | 2:46            | 2:35            | 2:29            | 3:51                  | 2:34            | 2:48            | --              | --              | --              |
|          | Tide - AM high           | 9:19            | 9:25            | 9:01            | 9:12            | 9:15            | 9:53                  | 9:12            | 9:03            | --              | --              | --              |
|          | Tide - PM high           | 9:32            | 9:38            | 9:14            | 9:25            | 9:28            | 10:06                 | 9:25            | 9:16            | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 7/3/2011 | Precipitation (in)       | 0.16            | --              | 0.00            | 0.00            | 0.00            | 0.01                  | 0.01            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 7.0             | --              | 1.0             | 7.0             | 1.8             | 4.0                   | 2.1             | --              | 0.4             | 1.2             | 1.2             |
|          | Wind Direction           | S               | --              | SSW             | S               | SW              | SSW                   | SSW             | --              | WSW             | S               | S               |
|          | Air Temp (F)             | 73.0            | --              | 71.2            | 70.0            | 73.6            | 70.0                  | 69.4            | 69.6            | 73.0            | 70.5            | 70.5            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 3:30            | 3:36            | 3:47            | 3:36            | 3:30            | 4:52                  | 3:35            | 3:49            | --              | --              | --              |
|          | Tide - PM low            | 3:16            | 3:22            | 3:33            | 3:22            | 3:16            | 4:38                  | 3:21            | 3:35            | --              | --              | --              |
|          | Tide - AM high           | 10:06           | 10:12           | 9:48            | 9:59            | 10:02           | 10:40                 | 9:59            | 9:50            | --              | --              | --              |
|          | Tide - PM high           | 10:20           | 10:26           | 10:02           | 10:13           | 10:16           | 10:54                 | 10:13           | 10:04           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 7/4/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.91            | 0.00                  | 0.01            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 7.0             | --              | 1.7             | 3.0             | 0.8             | 3.0                   | 1.6             | --              | 0.3             | 0.3             | 0.3             |
|          | Wind Direction           | SW              | --              | W               | SSW             | SW              | WSW                   | W               | --              | WSW             | SSW             | SSW             |
|          | Air Temp (F)             | 77.0            | --              | 74.3            | 74.0            | 79.5            | 74.0                  | 73.9            | 70.6            | 77.7            | 75.6            | 75.6            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 4:06            | 4:12            | 4:23            | 4:12            | 4:06            | 5:28                  | 4:11            | 4:25            | --              | --              | --              |
|          | Tide - PM low            | 4:04            | 4:10            | 4:21            | 4:10            | 4:04            | 5:26                  | 4:09            | 4:43            | --              | --              | --              |
|          | Tide - AM high           | 10:54           | 11:00           | 10:36           | 10:47           | 10:50           | 11:28                 | 10:47           | 10:38           | --              | --              | --              |
|          | Tide - PM high           | 11:09           | 11:15           | 10:51           | 11:02           | 11:05           | 11:43                 | 11:02           | 10:53           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 7/5/2011 | Precipitation (in)       | 0.00            | 0.06            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 6.0             | 0.0             | 1.7             | 2.0             | 1.0             | 4.0                   | 1.2             | --              | 0.0             | 0.0             | 0.0             |
|          | Wind Direction           | SW              | S               | W               | WSW             | S               | WSW                   | NW              | --              | S               | S               | S               |
|          | Air Temp (F)             | 79.0            | 82.2            | 76.6            | 75.0            | 79.0            | 75.0                  | 75.4            | 73.2            | 71.3            | 73.9            | 73.9            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 4:44            | 4:50            | 5:01            | 4:50            | 4:44            | 6:06                  | 4:49            | 5:03            | --              | --              | --              |
|          | Tide - PM low            | 4:54            | 5:00            | 5:11            | 5:00            | 4:54            | 6:16                  | 4:59            | 5:13            | --              | --              | --              |
|          | Tide - AM high           | 11:45           | 11:51           | 11:27           | 11:38           | 11:41           | --                    | 11:38           | 11:29           | --              | --              | --              |
|          | Tide - PM high           | --              | --              | 11:43           | 11:54           | 11:57           | 12:19                 | 11:54           | 11:45           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 7/6/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 7.0             | 0.0             | 1.9             | 5.0             | 2.0             | 3.0                   | 1.6             | --              | 1.1             | 0.9             | 1.3             |
|          | Wind Direction           | SW              | S               | WNW             | SSW             | SW              | SW                    | SW              | --              | WSW             | S               | SW              |
|          | Air Temp (F)             | 79.0            | 70.5            | 67.8            | 74.0            | 79.8            | 72.0                  | 73.8            | 69.9            | 79.6            | 74.3            | 78.3            |
|          | Water Temp (F)           | 71.4            | 78.4            | 71.1            | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 5:24            | 5:30            | 5:41            | 5:30            | 5:24            | 6:46                  | 5:29            | 5:43            | --              | --              | --              |
|          | Tide - PM low            | 5:49            | 5:55            | 6:06            | 5:55            | 5:49            | 7:11                  | 5:54            | 6:08            | --              | --              | --              |
|          | Tide - AM high           | 12:01           | 12:07           | --              | --              | --              | 12:35                 | --              | --              | --              | --              | --              |
|          | Tide - PM high           | 12:37           | 12:43           | 12:19           | 12:30           | 12:33           | 1:11                  | 12:30           | 12:21           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 7/7/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.01            |
|          | Wind Speed (mph)         | 6.0             | --              | 0.0             | 4.0             | 1.0             | 2.0                   | 0.8             | --              | 0.1             | 0.3             | 1.1             |
|          | Wind Direction           | WSW             | --              | S               | S               | S               | SSW                   | NW              | --              | WSW             | N               | NW              |
|          | Air Temp (F)             | 80.0            | --              | 81.4            | 76.0            | 79.6            | 76.0                  | 75.5            | 74.0            | 78.6            | 76.0            | 77.0            |
|          | Water Temp (F)           | 72.0            | --              | --              | --              | --              | 66.9                  | --              | --              | 79.0            | --              | --              |
|          | Tide - AM low            | 6:11            | 6:17            | 6:28            | 6:17            | 6:11            | 7:33                  | 6:16            | 6:30            | --              | --              | --              |
|          | Tide - PM low            | 6:55            | 7:01            | 7:12            | 7:01            | 6:55            | 8:17                  | 7:00            | 7:14            | --              | --              | --              |
|          | Tide - AM high           | 12:54           | 1:00            | 12:36           | 12:47           | 12:50           | 1:28                  | 12:47           | 12:38           | --              | --              | --              |
|          | Tide - PM high           | 1:31            | 1:37            | 1:13            | 1:24            | 1:27            | 2:05                  | 1:24            | 1:15            | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick        | Bristol        | Narragansett   | Newport        | North Kingstown | Westerly - Watch Hill | Tiverton       | Little Compton | Johnston       | Coventry       | Cumberland     |
|-----------|--------------------------|----------------|----------------|----------------|----------------|-----------------|-----------------------|----------------|----------------|----------------|----------------|----------------|
| 7/8/2011  | Precipitation (in)       | 2.25           | 0.85           | 0.32           | 0.23           | 0.71            | 0.26                  | 1.95           | 0.35           | 2.19           | 1.93           | 1.14           |
|           | Wind Speed (mph)         | 5              | 0              | 0.1            | 5              | 0.4             | 4                     | 2.2            | --             | 0              | 0.2            | 1.1            |
|           | Wind Direction           | E              | S              | E              | ESE            | ESE             | ESE                   | SSE            | --             | NW             | SE             | ESE            |
|           | Air Temp (F)             | 73             | 76.1           | 70.2           | 72             | 72.9            | 74                    | 70.8           | 70.7           | 71.1           | 70.4           | 70.9           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 7:05           | 7:11           | 7:22           | 7:11           | 7:05            | 8:27                  | 7:10           | 7:24           | --             | --             | --             |
|           | Tide - PM low            | 8:20           | 8:26           | 8:37           | 8:26           | 8:20            | 9:42                  | 8:25           | 8:39           | --             | --             | --             |
|           | Tide - AM high           | 1:50           | 1:56           | 1:32           | 1:43           | 1:46            | 2:24                  | 1:43           | 1:34           | --             | --             | --             |
|           | Tide - PM high           | 2:28           | 2:34           | 2:10           | 2:21           | 2:24            | 3:02                  | 2:21           | 2:12           | --             | --             | --             |
|           | Lunar cycle              | First Quarter   | First Quarter         | First Quarter  | First Quarter  | First Quarter  | First Quarter  | First Quarter  |
| 7/9/2011  | Precipitation (in)       | 0.15           | 0.77           | 0.49           | 0.31           | 0.71            | 0.39                  | 0.38           | 0.55           | 0.11           | 0.49           | 0.18           |
|           | Wind Speed (mph)         | 9.0            | 0.0            | 2.5            | 6.0            | 0.7             | 5.0                   | 1.7            | --             | 0.1            | 0.7            | 2.3            |
|           | Wind Direction           | NNW            | S              | NW             | NNW            | NNW             | NNW                   | N              | --             | NNE            | N              | NW             |
|           | Air Temp (F)             | 77.0           | 78.5           | 75.0           | 75.0           | 76.5            | 78.0                  | 73.2           | 73.5           | 75.2           | 73.5           | 74.7           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | 84.2           | 77.9           | --             |
|           | Tide - AM low            | 8:08           | 8:14           | 8:25           | 8:14           | 8:08            | 9:30                  | 8:13           | 8:27           | --             | --             | --             |
|           | Tide - PM low            | 9:50           | 9:56           | 10:07          | 9:56           | 9:50            | 11:12                 | 9:55           | 10:09          | --             | --             | --             |
|           | Tide - AM high           | 2:48           | 2:54           | 2:30           | 2:41           | 2:44            | 3:22                  | 2:41           | 2:32           | --             | --             | --             |
|           | Tide - PM high           | 3:28           | 3:34           | 3:10           | 3:21           | 3:24            | 4:02                  | 3:21           | 3:12           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 7/10/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 6.0            | 0.0            | 0.2            | 4.0            | 1.4             | 4.0                   | 1.1            | --             | 0.3            | 0.3            | 0.8            |
|           | Wind Direction           | SSW            | S              | W              | SSW            | SSW             | SSE                   | SW             | --             | WSW            | S              | WSW            |
|           | Air Temp (F)             | 71.0           | 79.4           | 67.3           | 67.0           | 73.4            | 68.0                  | 69.9           | 69.7           | 73.4           | 69.2           | 71.6           |
|           | Water Temp (F)           | 72.0           | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 9:14           | 9:20           | 9:31           | 9:20           | 9:14            | 10:36                 | 9:19           | 9:33           | --             | --             | --             |
|           | Tide - PM low            | 10:57          | 11:03          | 11:14          | 11:03          | 10:57           | --                    | 11:02          | 11:16          | --             | --             | --             |
|           | Tide - AM high           | 3:50           | 3:56           | 3:32           | 3:43           | 3:46            | 4:24                  | 3:43           | 3:34           | --             | --             | --             |
|           | Tide - PM high           | 4:32           | 4:38           | 4:14           | 4:25           | 4:28            | 5:06                  | 4:25           | 4:16           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 7/11/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 9.0            | 0.0            | 1.3            | 5.0            | 2.5             | 2.0                   | 2.4            | --             | 1.1            | 1.2            | 1.4            |
|           | Wind Direction           | S              | S              | WSW            | SSW            | SW              | SW                    | SSW            | --             | WSW            | S              | SSW            |
|           | Air Temp (F)             | 77.0           | 77.0           | 71.0           | 74.0           | 79.5            | 72.0                  | 73.4           | 72.7           | 79.3           | 75.7           | 78.4           |
|           | Water Temp (F)           | 77.6           | --             | 68.3           | 71.7           | 70.4            | --                    | --             | --             | 74.5           | --             | --             |
|           | Tide - AM low            | 10:16          | 10:22          | 10:33          | 10:22          | 10:16           | 12:19                 | 10:21          | 10:35          | --             | --             | --             |
|           | Tide - PM low            | 11:53          | 11:59          | --             | 11:59          | 11:53           | 11:38am               | 11:58          | --             | --             | --             | --             |
|           | Tide - AM high           | 4:56           | 5:02           | 4:38           | 4:49           | 4:52            | 5:30                  | 4:49           | 4:40           | --             | --             | --             |
|           | Tide - PM high           | 5:35           | 5:41           | 5:17           | 5:28           | 5:31            | 6:09                  | 5:28           | 5:19           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 7/12/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.43           | 0.30           | 0.00            | 0.11                  | 0.00           | 0.39           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 10.0           | 0.0            | 4.4            | 9.0            | 1.3             | 8.0                   | 2.5            | --             | 0.7            | 1.3            | 1.9            |
|           | Wind Direction           | WSW            | S              | WNW            | SW             | WSW             | SW                    | WNW            | --             | WSW            | SSW            | WSW            |
|           | Air Temp (F)             | 83.0           | 84.0           | 79.8           | 79.0           | 85.4            | 80.0                  | 78.6           | 76.6           | 82.3           | 80.1           | 81.6           |
|           | Water Temp (F)           | --             | --             | 71.4           | --             | 71.2            | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 11:11          | 11:17          | 12:10          | 11:17          | 11:11           | 1:15                  | 11:16          | 12:12          | --             | --             | --             |
|           | Tide - PM low            | --             | --             | 11:28am        | --             | --              | 12:33                 | --             | 11:30am        | --             | --             | --             |
|           | Tide - AM high           | 5:59           | 6:05           | 5:41           | 5:52           | 5:55            | 6:33                  | 5:52           | 5:43           | --             | --             | --             |
|           | Tide - PM high           | 6:33           | 6:39           | 6:15           | 6:26           | 6:29            | 7:07                  | 6:26           | 6:17           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 7/13/2011 | Precipitation (in)       | 0.51           | 0.00           | 0.61           | 0.12           | 0.00            | 0.33                  | 0.39           | 0.55           | 0.22           | 0.30           | 0.00           |
|           | Wind Speed (mph)         | 7.0            | 0.0            | 3.0            | 5.0            | 0.5             | 3.0                   | 1.5            | --             | 0.1            | 0.3            | 1.6            |
|           | Wind Direction           | NNW            | S              | WNW            | NNW            | NE              | WNW                   | N              | --             | NNE            | N              | NNW            |
|           | Air Temp (F)             | 77.0           | 80.9           | 76.6           | 75.0           | 79.2            | 75.0                  | 74.4           | 75.2           | 77.0           | 74.4           | 76.3           |
|           | Water Temp (F)           | 78.6           | 72.3           | 68.1           | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 12:44          | 12:50          | 1:01           | 12:50          | 12:44           | 2:06                  | 12:49          | 1:03           | --             | --             | --             |
|           | Tide - PM low            | 12:04          | 12:10          | 12:21          | 12:10          | 12:04           | 1:26                  | 12:09          | 12:23          | --             | --             | --             |
|           | Tide - AM high           | 6:56           | 7:02           | 6:38           | 6:49           | 6:52            | 7:30                  | 6:49           | 6:40           | --             | --             | --             |
|           | Tide - PM high           | 7:26           | 7:32           | 7:08           | 7:19           | 7:22            | 8:00                  | 7:19           | 7:10           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 7/14/2011 | Precipitation (in)       | 0.00           | 0.88           | 0.00           | 0.01           | 0.00            | 0.00                  | 0.03           | 0.00           | 0.04           | 0.00           | 0.24           |
|           | Wind Speed (mph)         | 11.0           | 0.0            | 3.2            | 9.0            | 2.0             | 9.0                   | 1.5            | --             | 1.2            | 1.5            | 3.1            |
|           | Wind Direction           | N              | S              | NNW            | N              | ENE             | N                     | N              | --             | NE             | N              | N              |
|           | Air Temp (F)             | 70.0           | 68.4           | 68.2           | 68.0           | 69.8            | 68.0                  | 66.3           | 66.5           | 68.1           | 67.2           | 67.4           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 1:29           | 1:35           | 1:46           | 1:35           | 1:29            | 2:51                  | 1:34           | 1:48           | --             | --             | --             |
|           | Tide - PM low            | 12:54          | 1:00           | 1:11           | 1:00           | 12:54           | 2:16                  | 12:59          | 1:13           | --             | --             | --             |
|           | Tide - AM high           | 7:48           | 7:54           | 7:30           | 7:41           | 7:44            | 8:22                  | 7:41           | 7:32           | --             | --             | --             |
|           | Tide - PM high           | 8:15           | 8:21           | 7:57           | 8:08           | 8:11            | 8:49                  | 8:08           | 7:59           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |

2011 Meteorological Data

| Date      | Meteorological Condition | Warwick        | Bristol        | Narragansett   | Newport        | North Kingstown | Westerly - Watch Hill | Tiverton       | Little Compton | Johnston       | Coventry       | Cumberland     |
|-----------|--------------------------|----------------|----------------|----------------|----------------|-----------------|-----------------------|----------------|----------------|----------------|----------------|----------------|
| 7/15/2011 | Precipitation (in)       | 0.03           | 0.01           | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 6.0            | 0.0            | 1.6            | 4.0            | 0.8             | 5.0                   | 1.8            | --             | 0.1            | 0.4            | 2.1            |
|           | Wind Direction           | WSW            | S              | WNW            | SSW            | ENE             | W                     | N              | --             | WSW            | NE             | NE             |
|           | Air Temp (F)             | 72.0           | 76.6           | 71.3           | 71.0           | 73.8            | 70.0                  | 68.5           | 69.4           | 72.1           | 69.9           | 70.9           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | 85.1           | --             |
|           | Tide - AM low            | 2:09           | 2:15           | 2:26           | 2:15           | 2:09            | 3:31                  | 2:14           | 2:28           | --             | --             | --             |
|           | Tide - PM low            | 1:44           | 1:50           | 2:01           | 1:50           | 1:44            | 3:06                  | 1:49           | 2:03           | --             | --             | --             |
|           | Tide - AM high           | 8:36           | 8:42           | 8:18           | 8:29           | 8:32            | 9:10                  | 8:29           | 8:20           | --             | --             | --             |
|           | Tide - PM high           | 9:01           | 9:07           | 8:43           | 8:54           | 8:57            | 9:35                  | 8:54           | 8:45           | --             | --             | --             |
|           | Lunar cycle              | Full Moon       | Full Moon             | Full Moon      | Full Moon      | Full Moon      | Full Moon      | Full Moon      |
| 7/16/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.01           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 6.0            | 0.0            | 2.1            | 4.0            | 1.2             | 5.0                   | 1.5            | --             | 0.4            | 0.4            | 0.9            |
|           | Wind Direction           | SSW            | S              | W              | SSW            | SSW             | SSW                   | W              | --             | WSW            | S              | W              |
|           | Air Temp (F)             | 73.0           | 81.8           | 74.7           | 72.0           | 76.1            | 72.0                  | 71.6           | 70.9           | 75.7           | 72.3           | 74.7           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 2:44           | 2:50           | 3:01           | 2:50           | 2:44            | 4:06                  | 2:49           | 3:03           | --             | --             | --             |
|           | Tide - PM low            | 2:31           | 2:37           | 2:48           | 2:37           | 2:31            | 3:53                  | 2:36           | 2:50           | --             | --             | --             |
|           | Tide - AM high           | 9:22           | 9:28           | 9:04           | 9:15           | 9:18            | 9:56                  | 9:15           | 9:06           | --             | --             | --             |
|           | Tide - PM high           | 9:45           | 9:51           | 9:27           | 9:38           | 9:41            | 10:19                 | 9:38           | 9:29           | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 7/17/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 11.0           | 0.0            | 3.7            | 5.0            | 2.2             | 5.0                   | 2.3            | --             | 1.3            | 1.4            | 1.8            |
|           | Wind Direction           | WSW            | S              | W              | SSW            | WSW             | WSW                   | W              | --             | WSW            | SSW            | WSW            |
|           | Air Temp (F)             | 78.0           | 81.8           | 75.5           | 76.0           | 80.5            | 75.0                  | 74.3           | 72.4           | 79.9           | 76.3           | 77.5           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 3:16           | 3:22           | 3:33           | 3:22           | 3:16            | 4:38                  | 3:21           | 3:35           | --             | --             | --             |
|           | Tide - PM low            | 3:15           | 3:21           | 3:32           | 3:21           | 3:15            | 4:37                  | 3:20           | 3:34           | --             | --             | --             |
|           | Tide - AM high           | 10:07          | 10:13          | 9:49           | 10:00          | 10:03           | 10:41                 | 10:00          | 9:51           | --             | --             | --             |
|           | Tide - PM high           | 10:29          | 10:35          | 10:11          | 10:22          | 10:25           | 11:03                 | 10:22          | 10:13          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 7/18/2011 | Precipitation (in)       | T              | 0.00           | 0.10           | 0.02           | 0.00            | 0.00                  | 0.01           | 0.00           | 0.02           | 0.00           | 0.02           |
|           | Wind Speed (mph)         | 8.0            | 0.0            | 2.9            | 7.0            | 1.7             | 7.0                   | 1.6            | --             | 0.5            | 0.8            | 1              |
|           | Wind Direction           | WSW            | S              | W              | SSW            | SW              | WSW                   | W              | --             | WSW            | SSW            | WSW            |
|           | Air Temp (F)             | 81.0           | 82.1           | 74.0           | 74.0           | 79.3            | 76.0                  | 73.5           | 70.2           | 78.3           | 77.3           | 77.5           |
|           | Water Temp (F)           | 72.2           | --             | 71.5           | --             | --              | --                    | --             | --             | --             | 78.8           | --             |
|           | Tide - AM low            | 3:48           | 3:54           | 4:05           | 3:54           | 3:48            | 5:10                  | 3:53           | 4:07           | --             | --             | --             |
|           | Tide - PM low            | 3:58           | 4:04           | 4:15           | 4:04           | 3:58            | 5:20                  | 4:03           | 4:17           | --             | --             | --             |
|           | Tide - AM high           | 10:51          | 10:57          | 10:33          | 10:44          | 10:47           | 11:25                 | 10:44          | 10:35          | --             | --             | --             |
|           | Tide - PM high           | 11:11          | 11:17          | 10:53          | 11:04          | 11:07           | 11:45                 | 11:04          | 10:55          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 7/19/2011 | Precipitation (in)       | 0.00           | --             | 0.01           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.01           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 5.0            | --             | 1.2            | 3.0            | 0.7             | 4.0                   | 1.2            | --             | 0.1            | 0.3            | 1.3            |
|           | Wind Direction           | NW             | --             | WNW            | SW             | ESE             | SSW                   | NNW            | --             | ENE            | N              | NNW            |
|           | Air Temp (F)             | 80.0           | --             | 77.7           | 78.0           | 80.1            | 76.0                  | 76.1           | 74.9           | 78.9           | 75.6           | 77.3           |
|           | Water Temp (F)           | --             | 77.7           | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 4:22           | 4:28           | 4:39           | 4:28           | 4:22            | 5:44                  | 4:27           | 4:41           | --             | --             | --             |
|           | Tide - PM low            | 4:40           | 4:46           | 4:57           | 4:46           | 4:40            | 6:02                  | 4:45           | 4:59           | --             | --             | --             |
|           | Tide - AM high           | 11:34          | 11:40          | 11:16          | 11:27          | 11:30           | 11:30                 | 11:27          | 11:18          | --             | --             | --             |
|           | Tide - PM high           | 11:52          | 11:58          | 11:34          | 11:45          | 11:48           | 12:08                 | 11:45          | 11:36          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 7/20/2011 | Precipitation (in)       | 0.00           | --             | 0.00           | 0.00           | 0.00            | 0.00                  | 0.01           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 8.0            | --             | 2.1            | 3.0            | 2.3             | 4.0                   | 1.9            | --             | 0.7            | 1.4            | 1.2            |
|           | Wind Direction           | SSW            | --             | SW             | S              | SW              | SSW                   | SW             | --             | WSW            | S              | S              |
|           | Air Temp (F)             | 77.0           | --             | 71.2           | 72.0           | 77.5            | 73.0                  | 73.5           | 72.5           | 76.3           | 73.1           | 75.8           |
|           | Water Temp (F)           | 77.9           | --             | 68.2           | 73.4           | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 4:57           | 5:03           | 5:14           | 5:03           | 4:57            | 6:19                  | 5:02           | 5:16           | --             | --             | --             |
|           | Tide - PM low            | 5:23           | 5:29           | 5:40           | 5:29           | 5:23            | 6:45                  | 5:28           | 5:42           | --             | --             | --             |
|           | Tide - AM high           | --             | --             | 11:58          | --             | --              | 12:26                 | --             | --             | --             | --             | --             |
|           | Tide - PM high           | 12:16          | 12:22          | --             | 12:09          | 12:12           | 12:50                 | 12:09          | 12:00          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 7/21/2011 | Precipitation (in)       | 0.00           | --             | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 12.0           | --             | 3.5            | 8.0            | 3.7             | 8.0                   | 3.8            | --             | 2.0            | 2.6            | 2.5            |
|           | Wind Direction           | SSW            | --             | W              | SSW            | SW              | SW                    | SW             | --             | WSW            | S              | SW             |
|           | Air Temp (F)             | 81.0           | --             | 74.5           | 72.0           | 80.7            | 76.0                  | 74.3           | 70.8           | 81.6           | 79.0           | 80.8           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | 86.0           | 78.8           | --             |
|           | Tide - AM low            | 5:34           | 5:40           | 5:51           | 5:40           | 5:34            | 6:56                  | 5:39           | 5:53           | --             | --             | --             |
|           | Tide - PM low            | 6:11           | 6:17           | 6:28           | 6:17           | 6:11            | 7:33                  | 6:16           | 6:30           | --             | --             | --             |
|           | Tide - AM high           | 12:33          | 12:39          | 12:15          | 12:26          | 12:29           | 1:07                  | 12:26          | 12:17          | --             | --             | --             |
|           | Tide - PM high           | 12:57          | 1:03           | 12:39          | 12:50          | 12:53           | 1:31                  | 12:50          | 12:41          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|-----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 7/22/2011 | Precipitation (in)       | 0.00            | 0.01            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 8.0             | 0.0             | 2.0             | 5.0             | 0.8             | 5.0                   | 1.3             | --              | 0.6             | 0.5             | 1.4             |
|           | Wind Direction           | W               | S               | W               | SW              | WSW             | SW                    | WNW             | --              | WSW             | SSW             | WSW             |
|           | Air Temp (F)             | 89.0            | 93.4            | 83.0            | 82.0            | 89.7            | 82.0                  | 83.9            | 76.9            | 88.3            | 85.0            | 87.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 6:16            | 6:22            | 6:33            | 6:22            | 6:16            | 7:38                  | 6:21            | 6:35            | --              | --              | --              |
|           | Tide - PM low            | 7:08            | 7:14            | 7:25            | 7:14            | 7:08            | 8:30                  | 7:13            | 7:27            | --              | --              | --              |
|           | Tide - AM high           | 1:14            | 1:20            | 12:56           | 1:07            | 1:10            | 1:48                  | 1:07            | 12:58           | --              | --              | --              |
|           | Tide - PM high           | 1:38            | 1:44            | 1:20            | 1:31            | 1:34            | 2:12                  | 1:31            | 1:22            | --              | --              | --              |
|           | Lunar cycle              | Waning Gibbous        | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  |
| 7/23/2011 | Precipitation (in)       | 0.10            | 0.13            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.11            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 5.0             | 0.0             | 0.4             | 3.0             | 0.5             | 2.0                   | 0.9             | --              | 0.3             | 0.3             | 0.7             |
|           | Wind Direction           | S               | S               | WNW             | NNE             | SSW             | NW                    | S               | --              | WSW             | SSE             | W               |
|           | Air Temp (F)             | 80.0            | 82.8            | 78.8            | 78.0            | 79.5            | 80.0                  | 77.3            | 76.2            | 79.6            | 76.7            | 78.9            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 80.6            | --              | 80.6            |
|           | Tide - AM low            | 7:05            | 7:11            | 7:22            | 7:11            | 7:05            | 8:27                  | 7:10            | 7:24            | --              | --              | --              |
|           | Tide - PM low            | 8:23            | 8:29            | 8:40            | 8:29            | 8:23            | 9:45                  | 8:28            | 8:42            | --              | --              | --              |
|           | Tide - AM high           | 1:56            | 2:02            | 1:38            | 1:49            | 1:52            | 2:30                  | 1:49            | 1:40            | --              | --              | --              |
|           | Tide - PM high           | 2:21            | 2:27            | 2:03            | 2:14            | 2:17            | 2:55                  | 2:14            | 2:05            | --              | --              | --              |
|           | Lunar cycle              | Third Quarter         | Third Quarter   | Third Quarter   | Third Quarter   | Third Quarter   | Third Quarter   |
| 7/24/2011 | Precipitation (in)       | T               | 0.02            | 0.18            | 0.00            | 0.00            | 0.21                  | 0.01            | 0.00            | 0.01            | 0.14            | 0.01            |
|           | Wind Speed (mph)         | 5.0             | 0.0             | 0.6             | 2.0             | 0.2             | 3.0                   | 0.8             | --              | 0.0             | 0.1             | 1.5             |
|           | Wind Direction           | NNW             | S               | WNW             | NNW             | ESE             | NW                    | E               | --              | NE              | N               | E               |
|           | Air Temp (F)             | 77.0            | 79.9            | 77.2            | 76.0            | 77.3            | 77.0                  | 75.2            | 75.6            | 77.6            | 75.3            | 77.0            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 8:02            | 8:08            | 8:19            | 8:08            | 8:02            | 9:24                  | 8:07            | 8:21            | --              | --              | --              |
|           | Tide - PM low            | 9:41            | 9:47            | 9:58            | 9:47            | 9:41            | 11:03                 | 9:46            | 10:00           | --              | --              | --              |
|           | Tide - AM high           | 2:44            | 2:50            | 2:26            | 2:37            | 2:40            | 3:18                  | 2:37            | 2:28            | --              | --              | --              |
|           | Tide - PM high           | 3:10            | 3:16            | 2:52            | 3:03            | 3:06            | 3:44                  | 3:03            | 2:54            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 7/25/2011 | Precipitation (in)       | 0.10            | 0.03            | 0.02            | 0.08            | 0.00            | 0.02                  | 0.03            | 0.00            | 0.14            | 0.39            | 0.16            |
|           | Wind Speed (mph)         | 4.0             | 0.0             | 0.1             | 3.0             | 0.4             | 4.0                   | 1.1             | --              | 0.0             | 0.1             | 1.1             |
|           | Wind Direction           | ESE             | S               | E               | ESE             | ESE             | E                     | SE              | --              | SE              | SE              | ESE             |
|           | Air Temp (F)             | 69.0            | 72.1            | 69.2            | 68.0            | 69.3            | 68.0                  | 66.6            | 67.2            | 67.7            | 66.7            | 67.2            |
|           | Water Temp (F)           | --              | 75.7            | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 9:03            | 9:09            | 9:20            | 9:09            | 9:03            | 10:25                 | 9:08            | 9:22            | --              | --              | --              |
|           | Tide - PM low            | 10:41           | 10:47           | 10:58           | 10:47           | 10:41           | 12:03                 | 10:46           | 11:00           | --              | --              | --              |
|           | Tide - AM high           | 3:39            | 3:45            | 3:21            | 3:32            | 3:35            | 4:13                  | 3:32            | 3:23            | --              | --              | --              |
|           | Tide - PM high           | 4:06            | 4:12            | 3:48            | 3:59            | 4:02            | 4:40                  | 3:59            | 3:50            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 7/26/2011 | Precipitation (in)       | 0.08            | 0.08            | 0.12            | 0.01            | 0.00            | 0.89                  | 0.10            | 0.12            | 0.05            | 0.14            | 0.83            |
|           | Wind Speed (mph)         | 5.0             | 0.0             | 1.2             | 5.0             | 1.1             | 4.0                   | 1.5             | --              | 0.2             | 0.6             | 1.1             |
|           | Wind Direction           | SSW             | S               | SSE             | S               | SSW             | SW                    | SW              | --              | SW              | SSE             | SE              |
|           | Air Temp (F)             | 72.0            | 75.4            | 70.3            | 70.0            | 72.7            | 71.0                  | 68.6            | 69.5            | 70.6            | 69.2            | 69.5            |
|           | Water Temp (F)           | --              | --              | 73.4            | --              | --              | 69.8                  | 74.8            | --              | --              | --              | --              |
|           | Tide - AM low            | 10:01           | 10:07           | 10:18           | 10:07           | 10:01           | 12:03                 | 10:06           | 10:20           | --              | --              | --              |
|           | Tide - PM low            | 11:32           | 11:38           | 11:49           | 11:38           | 11:32           | 11:23 (am)            | 11:37           | 11:51           | --              | --              | --              |
|           | Tide - AM high           | 4:40            | 4:46            | 4:22            | 4:33            | 4:36            | 5:14                  | 4:33            | 4:24            | --              | --              | --              |
|           | Tide - PM high           | 5:06            | 5:12            | 4:48            | 4:59            | 5:02            | 5:40                  | 4:59            | 4:50            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 7/27/2011 | Precipitation (in)       | 0.00            | 0.10            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.01            | 0.00            | 0.01            | 0.01            | 0.01            |
|           | Wind Speed (mph)         | 7.0             | 0.0             | 3.9             | 4.0             | 0.6             | 4.0                   | 1.5             | --              | 0.1             | 0.4             | 1.0             |
|           | Wind Direction           | W               | S               | WNW             | WNW             | NW              | W                     | NNW             | --              | WSW             | NW              | WNW             |
|           | Air Temp (F)             | 74.0            | 78.8            | 72.9            | 74.0            | 79.9            | 72.0                  | 71.8            | 71.8            | 74.0            | 70.5            | 71.6            |
|           | Water Temp (F)           | 73.1            | 77.4            | 73.3            | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 10:54           | 11:00           | 11:11           | 11:00           | 10:54           | 12:54                 | 10:59           | 11:13           | --              | --              | --              |
|           | Tide - PM low            | --              | --              | --              | --              | --              | 12:16                 | --              | --              | --              | --              | --              |
|           | Tide - AM high           | 5:40            | 5:46            | 5:22            | 5:33            | 5:36            | 6:14                  | 5:33            | 5:24            | --              | --              | --              |
|           | Tide - PM high           | 6:03            | 6:09            | 5:45            | 5:56            | 5:59            | 6:37                  | 5:56            | 5:47            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 7/28/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 5.0             | 0.0             | 0.4             | 4.0             | 1.1             | 3.0                   | 1.3             | --              | 0.2             | 0.3             | 1               |
|           | Wind Direction           | SE              | S               | SE              | SE              | ESE             | SE                    | SW              | --              | WNW             | S               | NW              |
|           | Air Temp (F)             | 76.0            | 78.8            | 73.0            | 72.0            | 76.6            | 71.0                  | 71.1            | 71.5            | 74.5            | 71.1            | 72.9            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 78.1            | --              | --              |
|           | Tide - AM low            | 12:18           | 12:24           | 12:35           | 12:24           | 12:18           | 1:40                  | 12:23           | 12:37           | --              | --              | --              |
|           | Tide - PM low            | 11:44 (am)      | 11:50 (am)      | 12:01           | 11:50 (am)      | 11:44 (am)      | 1:06                  | 11:49 (am)      | 12:03           | --              | --              | --              |
|           | Tide - AM high           | 6:34            | 6:40            | 6:16            | 6:27            | 6:30            | 7:08                  | 6:27            | 6:18            | --              | --              | --              |
|           | Tide - PM high           | 6:53            | 6:59            | 6:35            | 6:46            | 6:49            | 7:27                  | 6:46            | 6:37            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|-----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 7/29/2011 | Precipitation (in)       | T               | 0.00            | --              | 0.00            | 0.00            | 0.00                  | 0.01            | 0.00            | 0.00            | 0.10            | 0.00            |
|           | Wind Speed (mph)         | 9.0             | 0.0             | --              | 8.0             | 1.9             | 6.0                   | 2.6             | --              | 0.3             | 1.2             | 1.6             |
|           | Wind Direction           | S               | S               | --              | SSE             | SSW             | S                     | S               | --              | W               | S               | SE              |
|           | Air Temp (F)             | 75.0            | 74.3            | --              | 72.0            | 73.6            | 72.0                  | 70.5            | 70.8            | 72.8            | 71.3            | 72.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 1:02            | 1:08            | 1:19            | 1:08            | 1:02            | 2:24                  | 1:07            | 1:21            | --              | --              | --              |
|           | Tide - PM low            | 12:34           | 12:40           | 12:51           | 12:40           | 12:34           | 1:56                  | 12:39           | 12:53           | --              | --              | --              |
|           | Tide - AM high           | 7:23            | 7:29            | 7:05            | 7:16            | 7:19            | 7:57                  | 7:16            | 7:07            | --              | --              | --              |
|           | Tide - PM high           | 7:40            | 7:46            | 7:22            | 7:33            | 7:36            | 8:14                  | 7:33            | 7:24            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 7/30/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.43            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.01            | 0.00            |
|           | Wind Speed (mph)         | 9.0             | 3.4             | 2.3             | 6.0             | 0.8             | 6.0                   | 2.6             | --              | 0.3             | 0.9             | 2.3             |
|           | Wind Direction           | NW              | N               | NW              | NW              | NNW             | WNW                   | NNW             | --              | W               | N               | NW              |
|           | Air Temp (F)             | 75.0            | 86.3            | 81.3            | 78.0            | 80.3            | 80.0                  | 77.6            | 80.3            | 80.0            | 76.4            | 78.2            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 1:44            | 1:50            | 2:01            | 1:50            | 1:44            | 3:06                  | 1:49            | 2:03            | --              | --              | --              |
|           | Tide - PM low            | 1:25            | 1:31            | 1:42            | 1:31            | 1:25            | 2:47                  | 1:30            | 1:44            | --              | --              | --              |
|           | Tide - AM high           | 8:09            | 8:15            | 7:51            | 8:02            | 8:05            | 8:43                  | 8:02            | 7:53            | --              | --              | --              |
|           | Tide - PM high           | 8:26            | 8:32            | 8:08            | 8:19            | 8:22            | 9:00                  | 8:19            | 8:10            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 7/31/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 6.0             | 1.4             | 0.4             | 3.0             | 1.4             | 3.0                   | 1.4             | --              | 0.3             | 0.3             | 1.1             |
|           | Wind Direction           | W               | ESE             | W               | SW              | SSW             | SSW                   | WNW             | --              | W               | NE              | WNW             |
|           | Air Temp (F)             | 74.0            | 83.5            | 74.7            | 73.0            | 82.3            | 73.0                  | 73.6            | 73.7            | 77.6            | 73.5            | 74.8            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | 80.6            | --              |
|           | Tide - AM low            | 2:23            | 2:29            | 2:40            | 2:29            | 2:23            | --                    | --              | --              | --              | --              | --              |
|           | Tide - PM low            | 2:15            | 2:21            | 2:32            | 2:21            | 2:15            | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM high           | 8:55            | 9:01            | 8:37            | 8:48            | 8:51            | --                    | --              | --              | --              | --              | --              |
|           | Tide - PM high           | 9:13            | 9:19            | 8:55            | 9:06            | 9:09            | 9:47                  | 9:06            | 8:57            | --              | --              | --              |
|           | Lunar cycle              | New Moon              | New Moon        | New Moon        | New Moon        | New Moon        | New Moon        |
| 8/1/2011  | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 7.0             | --              | 1.4             | 3.0             | 1.1             | 3.0                   | 1.7             | --              | 0.5             | 0.5             | 1.0             |
|           | Wind Direction           | SW              | --              | W               | SSW             | SSW             | WSW                   | WSW             | --              | W               | S               | WSW             |
|           | Air Temp (F)             | 74.0            | --              | 76.5            | 76.0            | 83.0            | 74.0                  | 75.7            | 74.5            | 79.8            | 76.0            | 78.2            |
|           | Water Temp (F)           | 79.5            | --              | 70.7            | 72.9            | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 3:02            | 3:08            | 3:19            | 3:08            | 3:02            | 4:24                  | 3:07            | 3:21            | --              | --              | --              |
|           | Tide - PM low            | 3:05            | 3:11            | 3:22            | 3:11            | 3:05            | 4:27                  | 3:10            | 3:24            | --              | --              | --              |
|           | Tide - AM high           | 9:43            | 9:49            | 9:25            | 9:36            | 9:39            | 10:17                 | 9:36            | 9:27            | --              | --              | --              |
|           | Tide - PM high           | 10:01           | 10:07           | 9:43            | 9:54            | 9:57            | 10:35                 | 9:54            | 9:45            | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 8/2/2011  | Precipitation (in)       | T               | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.19            |
|           | Wind Speed (mph)         | 8.0             | --              | 2.2             | 4.0             | 0.5             | 3.0                   | 1.4             | --              | 0.2             | 0.4             | 1.4             |
|           | Wind Direction           | NW              | --              | WNW             | NW              | ENE             | WNW                   | NNW             | --              | WSW             | NNW             | NW              |
|           | Air Temp (F)             | 74.0            | --              | 76.8            | 78.0            | 84.1            | 78.0                  | 74.7            | 75.0            | 77.4            | 76.1            | 75.0            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | 72.7                  | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 3:40            | 3:46            | 3:57            | 3:46            | 3:40            | 5:02                  | 3:45            | 3:59            | --              | --              | --              |
|           | Tide - PM low            | 3:54            | 4:00            | 4:11            | 4:00            | 3:54            | 5:16                  | 3:59            | 4:13            | --              | --              | --              |
|           | Tide - AM high           | 10:32           | 10:38           | 10:14           | 10:25           | 10:28           | 11:06                 | 10:25           | 10:16           | --              | --              | --              |
|           | Tide - PM high           | 10:51           | 10:57           | 10:33           | 10:44           | 10:47           | 11:25                 | 10:44           | 10:35           | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 8/3/2011  | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 6.0             | --              | 0.3             | 4.0             | 1.1             | 3.0                   | 1.2             | --              | 0.2             | 0.4             | 1.3             |
|           | Wind Direction           | SE              | --              | ESE             | ENE             | SE              | SSE                   | SSE             | --              | N               | SE              | E               |
|           | Air Temp (F)             | 74.0            | --              | 70.5            | 70.0            | 72.9            | 70.0                  | 68.6            | 69.3            | 71.5            | 69.4            | 69.8            |
|           | Water Temp (F)           | --              | 73.7            | --              | 71.0            | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 4:18            | 4:24            | 4:35            | 4:24            | 4:18            | 5:40                  | 4:23            | 4:37            | --              | --              | --              |
|           | Tide - PM low            | 4:44            | 4:50            | 5:01            | 4:50            | 4:44            | 6:06                  | 4:49            | 5:03            | --              | --              | --              |
|           | Tide - AM high           | 11:23           | 11:29           | 11:05           | 11:16           | 11:19           | 11:57                 | 11:16           | 11:07           | --              | --              | --              |
|           | Tide - PM high           | 11:42           | 11:48           | 11:24           | 11:35           | 11:38           | --                    | 11:35           | 11:26           | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 8/4/2011  | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 7.0             | --              | 0.3             | 4.0             | 1.8             | 4.0                   | 0.6             | --              | 0.7             | 0.4             | 1.9             |
|           | Wind Direction           | NE              | --              | ESE             | NE              | ESE             | E                     | ESE             | --              | N               | NE              | NE              |
|           | Air Temp (F)             | 74.0            | --              | 71.4            | 72.0            | 75.9            | 70.0                  | 70.1            | 70.6            | 72.5            | 70.8            | 71.1            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 5:00            | 5:06            | 5:17            | 5:06            | 5:00            | 6:22                  | 5:05            | 5:19            | --              | --              | --              |
|           | Tide - PM low            | 5:38            | 5:44            | 5:55            | 5:44            | 5:38            | 7:00                  | 5:43            | 5:57            | --              | --              | --              |
|           | Tide - AM high           | --              | --              | 11:58           | --              | --              | 12:16                 | --              | --              | --              | --              | --              |
|           | Tide - PM high           | 12:16           | 12:22           | --              | 12:09           | 12:12           | 12:50                 | 12:09           | 12:00           | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |

2011 Meteorological Data

| Date      | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|-----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 8/5/2011  | Precipitation (in)       | T               | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.01            |
|           | Wind Speed (mph)         | 7.0             | --              | 0.5             | 5.0             | 1.7             | 4.0                   | 0.9             | --              | 0.1             | 0.7             | 1.4             |
|           | Wind Direction           | SE              | --              | SE              | SE              | SSW             | S                     | SW              | --              | NNE             | S               | ESE             |
|           | Air Temp (F)             | 74.0            | --              | 70.6            | 69.0            | 78.0            | 70.0                  | 68.7            | 70.1            | 71.8            | 70.0            | 71.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 5:45            | 5:51            | 6:02            | 5:51            | 5:45            | 7:07                  | 5:50            | 6:04            | --              | --              | --              |
|           | Tide - PM low            | 6:42            | 6:48            | 6:59            | 6:48            | 6:42            | 8:04                  | 6:47            | 7:01            | --              | --              | --              |
|           | Tide - AM high           | 12:36           | 12:42           | 12:18           | 12:29           | 12:32           | 1:10                  | 12:29           | 12:20           | --              | --              | --              |
|           | Tide - PM high           | 1:12            | 1:18            | 12:54           | 1:05            | 1:08            | 1:46                  | 1:05            | 12:56           | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 8/6/2011  | Precipitation (in)       | T               | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.01            | 0.01            |
|           | Wind Speed (mph)         | 9.0             | --              | 1.2             | 6.0             | 2.3             | 6.0                   | 2.4             | --              | 0.9             | 1.6             | 1.4             |
|           | Wind Direction           | SSW             | --              | SW              | SSW             | SW              | SSW                   | WSW             | --              | W               | S               | SSW             |
|           | Air Temp (F)             | 78.0            | --              | 74.3            | 74.0            | 78.0            | 75.0                  | 72.4            | 72.5            | 76.1            | 74.1            | 75.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 79.0            | --              | --              |
|           | Tide - AM low            | 6:38            | 6:44            | 6:55            | 6:44            | 6:38            | 8:00                  | 6:43            | 6:57            | --              | --              | --              |
|           | Tide - PM low            | 8:17            | 8:23            | 8:34            | 8:23            | 8:17            | 9:39                  | 8:22            | 8:36            | --              | --              | --              |
|           | Tide - AM high           | 1:32            | 1:38            | 1:14            | 1:25            | 1:28            | 2:06                  | 1:25            | 1:16            | --              | --              | --              |
|           | Tide - PM high           | 2:09            | 2:15            | 1:51            | 2:02            | 2:05            | 2:43                  | 2:02            | 1:53            | --              | --              | --              |
|           | Lunar cycle              | First Quarter         | First Quarter   | First Quarter   | First Quarter   | First Quarter   | First Quarter   |
| 8/7/2011  | Precipitation (in)       | 2.25            | --              | 1.10            | 0.93            | 0.43            | 0.91                  | 1.28            | 1.22            | 2.22            | 2.46            | 1.74            |
|           | Wind Speed (mph)         | 9.0             | --              | 1.8             | 10.0            | 2.2             | 9.0                   | 3.7             | --              | 0.5             | 1.7             | 1.8             |
|           | Wind Direction           | S               | --              | S               | S               | SW              | S                     | S               | --              | WSW             | S               | SE              |
|           | Air Temp (F)             | 74.0            | --              | 73.2            | 72.0            | 74.1            | 76.0                  | 71.5            | 70.6            | 73.4            | 73.1            | 73.4            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 7:42            | 7:48            | 7:59            | 7:48            | 7:42            | 9:04                  | 7:47            | 8:01            | --              | --              | --              |
|           | Tide - PM low            | 9:56            | 10:02           | 10:13           | 10:02           | 9:56            | 11:18                 | 10:01           | 10:15           | --              | --              | --              |
|           | Tide - AM high           | 2:31            | 2:37            | 2:13            | 2:24            | 2:27            | 3:05                  | 2:24            | 2:15            | --              | --              | --              |
|           | Tide - PM high           | 3:11            | 3:17            | 2:53            | 3:04            | 3:07            | 3:45                  | 3:04            | 2:55            | --              | --              | --              |
|           | Lunar cycle              | Waxing Gibbous        | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  |
| 8/8/2011  | Precipitation (in)       | 0.12            | --              | 0.43            | 0.64            | 0.00            | 0.09                  | 0.36            | 0.39            | 0.17            | 0.02            | 0.38            |
|           | Wind Speed (mph)         | 4.0             | --              | 0.6             | 3.0             | 0.2             | 2.0                   | 0.7             | --              | 0.1             | 0.3             | 1.1             |
|           | Wind Direction           | N               | --              | W               | NNE             | E               | NW                    | N               | --              | NE              | N               | NNW             |
|           | Air Temp (F)             | 80.0            | --              | 76.1            | 78.0            | 80.1            | 80.0                  | 74.6            | 73.7            | 77.1            | 76.8            | 76.0            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 8:59            | 9:05            | 9:16            | 9:05            | 8:59            | 10:21                 | 9:04            | 9:18            | --              | --              | --              |
|           | Tide - PM low            | 11:00           | 11:06           | 11:17           | 11:06           | 11:00           | 11:00                 | 11:05           | 11:19           | --              | --              | --              |
|           | Tide - AM high           | 3:34            | 3:40            | 3:16            | 3:27            | 3:30            | 4:08                  | 3:27            | 3:18            | --              | --              | --              |
|           | Tide - PM high           | 4:17            | 4:23            | 3:59            | 4:10            | 4:13            | 4:51                  | 4:10            | 4:01            | --              | --              | --              |
|           | Lunar cycle              | Waxing Gibbous        | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  |
| 8/9/2011  | Precipitation (in)       | T               | --              | 0.06            | 0.06            | 0.00            | 0.08                  | 0.09            | 0.16            | 1.23            | 0.66            | 1.06            |
|           | Wind Speed (mph)         | 5.0             | --              | 0.7             | 2.0             | 1.9             | 4.0                   | 4.2             | --              | 0.2             | 1.0             | 2.1             |
|           | Wind Direction           | SE              | --              | ESE             | SE              | SSE             | ESE                   | SSE             | --              | WNW             | SSE             | SE              |
|           | Air Temp (F)             | 75.0            | --              | 72.0            | 72.0            | 76.3            | 72.0                  | 71.8            | 71.0            | 73.4            | 71.8            | 72.8            |
|           | Water Temp (F)           | --              | --              | --              | --              | 74.2            | --                    | 75.0            | --              | --              | --              | --              |
|           | Tide - AM low            | 10:13           | 10:19           | 10:30           | 10:19           | 10:13           | 12:22                 | 10:18           | 10:32           | --              | --              | --              |
|           | Tide - PM low            | 11:53           | 11:59           | 11:59           | 11:59           | 11:53           | 11:35 (am)            | 11:58           | --              | --              | --              | --              |
|           | Tide - AM high           | 4:41            | 4:47            | 4:23            | 4:34            | 4:37            | 5:15                  | 4:34            | 4:25            | --              | --              | --              |
|           | Tide - PM high           | 5:22            | 5:28            | 5:04            | 5:15            | 5:18            | 5:56                  | 5:15            | 5:06            | --              | --              | --              |
|           | Lunar cycle              | Waxing Gibbous        | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  |
| 8/10/2010 | Precipitation (in)       | 0.00            | --              | 0.14            | 0.26            | 0.63            | 0.00                  | 0.00            | 0.12            | 0.00            | 0.00            | 0.47            |
|           | Wind Speed (mph)         | 7.0             | --              | 3.9             | 7.0             | 0.1             | 4.0                   | 2.5             | --              | 0.3             | 0.4             | 1.4             |
|           | Wind Direction           | W               | --              | WNW             | SSW             | SSW             | WSW                   | WNW             | --              | WSW             | SSW             | WNW             |
|           | Air Temp (F)             | 77.0            | --              | 73.6            | 76.0            | 79.1            | 76.0                  | 73.6            | 73.2            | 75.3            | 74.9            | 73.3            |
|           | Water Temp (F)           | 74.2            | 77.3            | 74.1            | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 11:12           | 11:18           | 12:10           | 11:18           | 11:12           | 1:15                  | 11:17           | 12:12           | --              | --              | --              |
|           | Tide - PM low            | --              | --              | 11:29 (am)      | --              | --              | 12:34                 | --              | 11:31 (am)      | --              | --              | --              |
|           | Tide - AM high           | 5:45            | 5:51            | 5:27            | 5:38            | 5:41            | 6:19                  | 5:38            | 5:29            | --              | --              | --              |
|           | Tide - PM high           | 6:20            | 6:26            | 6:02            | 6:13            | 6:16            | 6:54                  | 6:13            | 6:04            | --              | --              | --              |
|           | Lunar cycle              | Waxing Gibbous        | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  |
| 8/11/2011 | Precipitation (in)       | T               | --              | --              | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.01            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 6.0             | --              | --              | 3.0             | 0.0             | 4.0                   | 1.5             | --              | 0.4             | 0.3             | 1.0             |
|           | Wind Direction           | WNW             | --              | --              | SSW             | S               | WSW                   | NW              | --              | WSW             | WSW             | W               |
|           | Air Temp (F)             | 73.0            | --              | --              | 70.0            | 74.7            | 72.0                  | 69.8            | 70.1            | 71.7            | 69.9            | 70.1            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | 72.3            | 79.0            | --              | --              |
|           | Tide - AM low            | 12:36           | 12:42           | 12:53           | 12:42           | 12:36           | 1:58                  | 12:41           | 12:55           | --              | --              | --              |
|           | Tide - PM low            | 12:03           | 12:09           | 12:20           | 12:09           | 12:03           | 1:25                  | 12:08           | 12:22           | --              | --              | --              |
|           | Tide - AM high           | 6:41            | 6:47            | 6:23            | 6:34            | 6:37            | 7:15                  | 6:34            | 6:25            | --              | --              | --              |
|           | Tide - PM high           | 7:12            | 7:18            | 6:54            | 7:05            | 7:08            | 7:46                  | 7:05            | 6:56            | --              | --              | --              |
|           | Lunar cycle              | Waxing Gibbous        | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  | Waxing Gibbous  |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick        | Bristol        | Narragansett   | Newport        | North Kingstown | Westerly - Watch Hill | Tiverton       | Little Compton | Johnston       | Coventry       | Cumberland     |
|-----------|--------------------------|----------------|----------------|----------------|----------------|-----------------|-----------------------|----------------|----------------|----------------|----------------|----------------|
| 8/12/2011 | Precipitation (in)       | 0.00           | --             | --             | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 7.0            | --             | --             | 3.0            | 0.0             | 2.0                   | 1.5            | --             | 0.1            | 0.5            | 1.1            |
|           | Wind Direction           | WNW            | --             | --             | WNW            | S               | WNW                   | NNW            | --             | SW             | N              | NW             |
|           | Air Temp (F)             | 71.0           | --             | --             | 70.0           | 72.1            | 70.0                  | 69.2           | 70.0           | 70.6           | 67.2           | 68.9           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 1:11           | 1:17           | 1:28           | 1:17           | 1:11            | 2:33                  | 1:16           | 1:30           | --             | --             | --             |
|           | Tide - PM low            | 12:48          | 12:54          | 1:05           | 12:54          | 12:48           | 2:10                  | 12:53          | 1:07           | --             | --             | --             |
|           | Tide - AM high           | 7:31           | 7:37           | 7:13           | 7:24           | 7:27            | 8:05                  | 7:24           | 7:15           | --             | --             | --             |
|           | Tide - PM high           | 7:58           | 8:04           | 7:40           | 7:51           | 7:54            | 8:32                  | 7:51           | 7:42           | --             | --             | --             |
|           | Lunar cycle              | Waxing Gibbous  | Waxing Gibbous        | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous | Waxing Gibbous |
| 8/13/2011 | Precipitation (in)       | 0.00           | --             | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 5.0            | --             | 0.2            | 2.0            | 0.0             | 2.0                   | 0.8            | --             | 0.2            | 0.0            | 0.5            |
|           | Wind Direction           | SW             | --             | W              | SSW            | S               | SSW                   | WSW            | --             | WSW            | S              | WNW            |
|           | Air Temp (F)             | 73.0           | --             | 74.5           | 70.0           | 74.1            | 69.0                  | 71.5           | 70.6           | 73.0           | 69.4           | 71.8           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | 86.0           | --             | --             |
|           | Tide - AM low            | 1:40           | 1:46           | 1:57           | 1:46           | 1:40            | 3:02                  | 1:45           | 1:59           | --             | --             | --             |
|           | Tide - PM low            | 1:32           | 1:38           | 1:49           | 1:38           | 1:32            | 2:54                  | 1:37           | 1:51           | --             | --             | --             |
|           | Tide - AM high           | 8:15           | 8:21           | 7:57           | 8:08           | 8:11            | 8:49                  | 8:08           | 7:59           | --             | --             | --             |
|           | Tide - PM high           | 8:40           | 8:46           | 8:22           | 8:33           | 8:36            | 9:14                  | 8:33           | 8:24           | --             | --             | --             |
|           | Lunar cycle              | Full Moon       | Full Moon             | Full Moon      | Full Moon      | Full Moon      | Full Moon      | Full Moon      |
| 8/14/2011 | Precipitation (in)       | 0.04           | --             | 0.04           | 0.00           | 0.00            | 0.21                  | 0.00           | 0.00           | 0.06           | 0.16           | 0.08           |
|           | Wind Speed (mph)         | 6.0            | --             | 0.3            | 6.0            | 0.0             | 5.0                   | 2.1            | --             | 0.2            | 0.1            | 1.1            |
|           | Wind Direction           | S              | --             | SE             | SSE            | S               | SSE                   | S              | --             | WSW            | S              | SE             |
|           | Air Temp (F)             | 72.0           | --             | 71.5           | 70.0           | 70.6            | 71.0                  | 69.5           | 69.6           | 70.4           | 68.2           | 70.3           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | 76.1           | --             |
|           | Tide - AM low            | 2:08           | 2:14           | 2:25           | 2:14           | 2:08            | 3:30                  | 2:13           | 2:27           | --             | --             | --             |
|           | Tide - PM low            | 2:13           | 2:19           | 2:30           | 2:19           | 2:13            | 3:35                  | 2:18           | 2:32           | --             | --             | --             |
|           | Tide - AM high           | 8:57           | 9:03           | 8:39           | 8:50           | 8:53            | 9:31                  | 8:50           | 8:41           | --             | --             | --             |
|           | Tide - PM high           | 9:20           | 9:26           | 9:02           | 9:13           | 9:16            | 9:54                  | 9:13           | 9:04           | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 8/15/2011 | Precipitation (in)       | 2.19           | 2.72           | 2.26           | 1.23           | 0.91            | 4.08                  | 1.60           | 2.17           | 1.83           | 3.49           | 2.23           |
|           | Wind Speed (mph)         | 10.0           | 4.6            | 1.7            | 8.0            | 0.7             | 7.0                   | 3.2            | --             | 1.4            | 0.8            | 3.7            |
|           | Wind Direction           | NE             | E              | N              | ENE            | NE              | NE                    | SE             | --             | NE             | N              | ENE            |
|           | Air Temp (F)             | 67.0           | 69.4           | 68.2           | 68.0           | 68.6            | 68.0                  | 66.7           | 66.5           | 66.7           | 66.5           | 66.3           |
|           | Water Temp (F)           | 76.7           | --             | 69.9           | 71.5           | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 2:38           | 2:44           | 2:55           | 2:44           | 2:38            | 4:00                  | 2:43           | 2:57           | --             | --             | --             |
|           | Tide - PM low            | 2:54           | 3:00           | 3:11           | 3:00           | 2:54            | 4:16                  | 2:59           | 3:13           | --             | --             | --             |
|           | Tide - AM high           | 9:37           | 9:43           | 9:19           | 9:30           | 9:33            | 10:11                 | 9:30           | 9:21           | --             | --             | --             |
|           | Tide - PM high           | 9:58           | 10:04          | 9:40           | 9:51           | 9:54            | 10:32                 | 9:51           | 9:42           | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 8/16/2011 | Precipitation (in)       | 0.00           | 0.17           | 0.00           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.01           | 0.02           |
|           | Wind Speed (mph)         | 6.0            | 3.1            | 1.7            | 6.0            | 0.1             | 5.0                   | 1.8            | --             | 0.1            | 0.5            | 1.1            |
|           | Wind Direction           | NNW            | NNW            | WNW            | NNW            | NW              | NNW                   | N              | --             | NE             | N              | NNW            |
|           | Air Temp (F)             | 68.0           | 71.1           | 66.4           | 66.0           | 69.1            | 68.0                  | 64.2           | 65.1           | 65.5           | 64.8           | 65.0           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 3:10           | 3:16           | 3:27           | 3:16           | 3:10            | 4:32                  | 3:15           | 3:29           | --             | --             | --             |
|           | Tide - PM low            | 3:33           | 3:39           | 3:50           | 3:39           | 3:33            | 4:55                  | 3:38           | 3:52           | --             | --             | --             |
|           | Tide - AM high           | 10:16          | 10:22          | 9:58           | 10:09          | 10:12           | 10:50                 | 10:09          | 10:00          | --             | --             | --             |
|           | Tide - PM high           | 10:36          | 10:42          | 10:18          | 10:29          | 10:32           | 11:10                 | 10:29          | 10:20          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 8/17/2011 | Precipitation (in)       | 0.00           | 0.00           | 0.01           | 0.00           | 0.00            | 0.00                  | 0.01           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 5.0            | 0.6            | 0.7            | 2.0            | 0.8             | 2.0                   | 1.1            | --             | 0.2            | 0.1            | 0.6            |
|           | Wind Direction           | SSW            | ESE            | W              | SSW            | SSW             | SSW                   | WSW            | --             | SW             | S              | W              |
|           | Air Temp (F)             | 74.0           | 69.7           | 71.6           | 70.0           | 73.9            | 70.0                  | 70.3           | 69.8           | 72.7           | 70.2           | 72.1           |
|           | Water Temp (F)           | --             | 72.1           | --             | 70.5           | --              | --                    | --             | --             | --             | --             | 77.9           |
|           | Tide - AM low            | 3:44           | 3:50           | 4:01           | 3:50           | 3:44            | 5:06                  | 3:49           | 4:03           | --             | --             | --             |
|           | Tide - PM low            | 4:11           | 4:17           | 4:28           | 4:17           | 4:11            | 5:33                  | 4:16           | 4:30           | --             | --             | --             |
|           | Tide - AM high           | 10:54          | 11:00          | 10:36          | 10:47          | 10:50           | 11:28                 | 10:47          | 10:38          | --             | --             | --             |
|           | Tide - PM high           | 11:14          | 11:20          | 10:56          | 11:07          | 11:10           | 11:48                 | 11:07          | 10:58          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |
| 8/18/2011 | Precipitation (in)       | 0.00           | 0.01           | 0.01           | 0.00           | 0.00            | 0.00                  | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |
|           | Wind Speed (mph)         | 8.0            | 1.8            | 1.1            | 6.0            | 1.7             | 4.0                   | 2.2            | --             | 0.9            | 1.2            | 1.2            |
|           | Wind Direction           | SW             | S              | WSW            | SSW            | SW              | SW                    | SW             | --             | WSW            | S              | SSW            |
|           | Air Temp (F)             | 74.0           | 79.1           | 71.5           | 73.0           | 77.2            | 72.0                  | 72.2           | 71.3           | 75.2           | 71.7           | 74.2           |
|           | Water Temp (F)           | --             | --             | --             | --             | --              | --                    | --             | --             | --             | --             | --             |
|           | Tide - AM low            | 4:19           | 4:25           | 4:36           | 4:25           | 4:19            | 5:41                  | 4:24           | 4:38           | --             | --             | --             |
|           | Tide - PM low            | 4:50           | 4:56           | 5:07           | 4:56           | 4:50            | 6:12                  | 4:55           | 5:09           | --             | --             | --             |
|           | Tide - AM high           | 11:32          | 11:38          | 11:14          | 11:25          | 11:28           | 12:06                 | 11:25          | 11:16          | --             | --             | --             |
|           | Tide - PM high           | 11:52          | 11:58          | 11:34          | 11:45          | 11:48           | 12:26                 | 11:45          | 11:36          | --             | --             | --             |
|           | Lunar cycle              | Waning Gibbous  | Waning Gibbous        | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous | Waning Gibbous |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|-----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 8/19/2011 | Precipitation (in)       | T               | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 7.0             | 1.3             | 0.5             | 6.0             | 2.0             | 6.0                   | 2.0             | --              | 0.7             | 0.9             | 1.1             |
|           | Wind Direction           | SSW             | S               | SW              | S               | SSW             | SSW                   | SW              | --              | WSW             | S               | SSE             |
|           | Air Temp (F)             | 77.0            | 79.9            | 75.7            | 74.0            | 78.3            | 74.0                  | 72.9            | 72.6            | 76.5            | 73.8            | 75.7            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 74.5            | --              | --              |
|           | Tide - AM low            | 4:55            | 5:01            | 5:55            | 5:01            | 4:55            | 6:17                  | 5:00            | 5:14            | --              | --              | --              |
|           | Tide - PM low            | 5:31            | 5:37            | 6:50            | 5:37            | 5:31            | 6:53                  | 5:36            | 5:50            | --              | --              | --              |
|           | Tide - AM high           | --              | --              | 12:26           | --              | --              | 12:26                 | --              | 11:54           | --              | --              | --              |
|           | Tide - PM high           | 12:10           | 12:16           | 12:38           | 12:03           | 12:06           | 12:44                 | 12:03           | --              | --              | --              | --              |
|           | Lunar cycle              | Waning Gibbous        | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  |
| 8/20/2011 | Precipitation (in)       | 0.59            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 7.0             | 1.0             | 0.6             | 5.0             | 1.6             | 4.0                   | 1.7             | --              | 0.2             | 0.8             | 1.1             |
|           | Wind Direction           | S               | S               | SW              | S               | WSW             | S                     | SSW             | --              | WSW             | S               | SE              |
|           | Air Temp (F)             | 76.0            | 79.0            | 74.9            | 74.0            | 78.1            | 74.0                  | 72.7            | 73.0            | 75.3            | 74.6            | 75.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 83.3            | --              | --              |
|           | Tide - AM low            | 5:34            | 5:40            | 6:47            | 5:40            | 5:34            | 6:56                  | 5:39            | 5:53            | --              | --              | --              |
|           | Tide - PM low            | 6:18            | 6:24            | 8:14            | 6:24            | 6:18            | 7:40                  | 6:23            | 6:37            | --              | --              | --              |
|           | Tide - AM high           | 12:32           | 12:38           | 1:17            | 12:25           | 12:28           | 1:06                  | 12:25           | 12:16           | --              | --              | --              |
|           | Tide - PM high           | 12:50           | 12:56           | 1:31            | 12:43           | 12:46           | 1:24                  | 12:43           | 12:34           | --              | --              | --              |
|           | Lunar cycle              | Waning Gibbous        | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  |
| 8/21/2011 | Precipitation (in)       | 0.02            | 0.02            | 0.01            | 0.00            | 0.00            | 0.01                  | 0.00            | 0.00            | 0.02            | 0.03            | 0.11            |
|           | Wind Speed (mph)         | 10.0            | 1.8             | 1.9             | 7.0             | 2.5             | 5.0                   | 2.9             | --              | 1.0             | 2.2             | 2.1             |
|           | Wind Direction           | SSW             | S               | S               | S               | SW              | SSW                   | SSW             | --              | WSW             | S               | SSE             |
|           | Air Temp (F)             | 76.0            | 79.0            | 74.4            | 73.0            | 76.7            | 72.0                  | 72.5            | 73.0            | 74.6            | 72.3            | 74.0            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 6:18            | 6:24            | 7:54            | 6:24            | 6:18            | 7:40                  | 6:23            | 6:37            | --              | --              | --              |
|           | Tide - PM low            | 7:20            | 7:26            | 9:50            | 7:26            | 7:20            | 8:42                  | 7:25            | 7:39            | --              | --              | --              |
|           | Tide - AM high           | 1:15            | 1:21            | 2:13            | 1:08            | 1:11            | 1:49                  | 1:08            | 12:59           | --              | --              | --              |
|           | Tide - PM high           | 1:34            | 1:40            | 2:31            | 1:27            | 1:30            | 2:08                  | 1:27            | 1:18            | --              | --              | --              |
|           | Lunar cycle              | Waning Gibbous        | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  | Waning Gibbous  |
| 8/22/2011 | Precipitation (in)       | 0.14            | 0.05            | 0.07            | 0.05            | 0.00            | 0.35                  | 0.04            | 0.04            | 0.23            | 0.27            | 0.35            |
|           | Wind Speed (mph)         | 11.0            | 4.3             | 5.3             | 10.0            | 1.4             | 7.0                   | 3.8             | --              | 0.4             | 1.2             | 1.4             |
|           | Wind Direction           | WSW             | NW              | WNW             | WNW             | WSW             | WSW                   | NW              | --              | SW              | NNW             | W               |
|           | Air Temp (F)             | 72.0            | 73.2            | 71.7            | 72.0            | 73.8            | 70.0                  | 70.5            | 71.7            | 71.3            | 69.3            | 70.2            |
|           | Water Temp (F)           | --              | 76.0            | --              | --              | --              | --                    | --              | --              | --              | 75.2            | --              |
|           | Tide - AM low            | 7:12            | 7:18            | 9:13            | 7:18            | 7:12            | 8:34                  | 7:17            | 7:31            | --              | --              | --              |
|           | Tide - PM low            | 8:54            | 9:00            | 10:44           | 9:00            | 8:54            | 10:16                 | 8:59            | 9:13            | --              | --              | --              |
|           | Tide - AM high           | 2:04            | 2:10            | 3:14            | 1:57            | 2:00            | 2:38                  | 1:57            | 1:48            | --              | --              | --              |
|           | Tide - PM high           | 2:24            | 2:30            | 3:36            | 2:17            | 2:20            | 2:58                  | 2:17            | 2:08            | --              | --              | --              |
|           | Lunar cycle              | Third Quarter         | Third Quarter   | Third Quarter   | Third Quarter   | Third Quarter   | Third Quarter   |
| 8/23/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 6.0             | 2.2             | 1.5             | 7.0             | 0.4             | 6.0                   | 2.1             | --              | 0.3             | 0.3             | 0.9             |
|           | Wind Direction           | W               | W               | W               | WNW             | SW              | W                     | --              | --              | WSW             | SSE             | WNW             |
|           | Air Temp (F)             | 68.0            | 72.7            | 68.3            | 67.0            | 70.3            | 66.0                  | 66.0            | 67.9            | 68.1            | 65.7            | 66.5            |
|           | Water Temp (F)           | --              | --              | 72.1            | --              | 73.2            | --                    | 73.9            | --              | --              | --              | --              |
|           | Tide - AM low            | 8:18            | 8:24            | 10:23           | 8:24            | 8:18            | 9:40                  | 8:23            | 8:37            | --              | --              | --              |
|           | Tide - PM low            | 10:11           | 10:17           | 11:26           | 10:17           | 10:11           | 11:33                 | 10:16           | 10:30           | --              | --              | --              |
|           | Tide - AM high           | 3:00            | 3:06            | 4:17            | 2:53            | 2:56            | 3:34                  | 2:53            | 2:44            | --              | --              | --              |
|           | Tide - PM high           | 3:23            | 3:29            | 4:40            | 3:16            | 3:19            | 3:57                  | 3:16            | 3:07            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 8/24/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 9.0             | 1.7             | 1.2             | 5.0             | 2.1             | 4.0                   | 2.7             | --              | 0.9             | 1.5             | 1.8             |
|           | Wind Direction           | SSW             | S               | SSE             | S               | SW              | SSW                   | SSW             | --              | WSW             | S               | SSE             |
|           | Air Temp (F)             | 69.0            | 77.3            | 70.1            | 69.0            | 75.8            | 67.0                  | 68.4            | 79.2            | 70.1            | 66.3            | 69.6            |
|           | Water Temp (F)           | 75.7            | --              | --              | --              | --              | --                    | --              | --              | --              | 77.0            | --              |
|           | Tide - AM low            | 9:27            | 9:33            | 11:23           | 9:33            | 9:27            | 10:49                 | 9:32            | 9:46            | --              | --              | --              |
|           | Tide - PM low            | 11:03           | 11:09           | 11:09           | 11:03           | 11:03           | 11:03                 | 11:08           | 11:22           | --              | --              | --              |
|           | Tide - AM high           | 4:02            | 4:08            | 5:16            | 3:55            | 3:58            | 4:36                  | 3:55            | 3:46            | --              | --              | --              |
|           | Tide - PM high           | 4:27            | 4:33            | 5:39            | 4:20            | 4:23            | 5:01                  | 4:20            | 4:11            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 8/25/2011 | Precipitation (in)       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.02            | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 12.0            | 2.4             | 2.6             | 10.0            | 3.3             | 10.0                  | 3.7             | --              | 1.8             | 3.1             | 3.2             |
|           | Wind Direction           | SSW             | S               | S               | S               | SW              | SSW                   | SW              | --              | WSW             | S               | SSW             |
|           | Air Temp (F)             | 76.0            | 76.9            | 74.6            | 74.0            | 76.8            | 75.0                  | 72.3            | 72.3            | 75.5            | 73.6            | 75.0            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 10:28           | 10:34           | 12:06           | 10:34           | 10:28           | 12:25                 | 10:33           | 10:47           | --              | --              | --              |
|           | Tide - PM low            | 11:47           | 11:53           | 12:17           | 11:53           | 11:47           | 11:50 (am)            | 11:52           | --              | --              | --              | --              |
|           | Tide - AM high           | 5:06            | 5:12            | 6:10            | 4:59            | 5:02            | 5:40                  | 4:59            | 4:50            | --              | --              | --              |
|           | Tide - PM high           | 5:30            | 5:36            | 6:32            | 5:23            | 5:26            | 6:04                  | 5:23            | 5:14            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |

2011 Meterological Data

| Date      | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|-----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 8/26/2011 | Precipitation (in)       | T               | 0.00            | 0.00            | 0.00            | 0.00            | 0.00                  | 0.03            | 0.00            | 0.00            | 0.01            | 0.03            |
|           | Wind Speed (mph)         | 5.0             | 1.6             | 1.0             | 4.0             | 0.8             | 3.0                   | 1.4             | --              | 0.1             | 0.2             | 0.9             |
|           | Wind Direction           | SSW             | WNW             | W               | SW              | SSW             | WSW                   | W               | --              | WSW             | N               | WNW             |
|           | Air Temp (F)             | 77.0            | 79.1            | 73.6            | 76.0            | 79.5            | 76.0                  | 74.2            | 74.5            | 77.1            | 75.3            | 75.9            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 11:24           | 11:30           | 12:47           | 11:30           | 11:24           | 1:09                  | 11:29           | 12:06           | --              | --              | --              |
|           | Tide - PM low            | --              | --              | 1:09            | --              | --              | 12:46                 | --              | 11:43 (am)      | --              | --              | --              |
|           | Tide - AM high           | 6:04            | 6:10            | 7:00            | 5:57            | 6:00            | 6:38                  | 5:57            | 5:48            | --              | --              | --              |
|           | Tide - PM high           | 6:25            | 6:31            | 7:22            | 6:18            | 6:21            | 6:59                  | 6:18            | 6:09            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 8/27/2011 | Precipitation (in)       | 0.45            | --              | --              | 0.01            | 0.00            | 0.12                  | 0.45            | 0.04            | 0.38            | 0.30            | 0.37            |
|           | Wind Speed (mph)         | 5.0             | --              | --              | 4.0             | 0.5             | 3.0                   | 1.6             | --              | 0.1             | 0.3             | 1.4             |
|           | Wind Direction           | SE              | --              | --              | SE              | ESE             | ESE                   | SE              | --              | N               | ESE             | ESE             |
|           | Air Temp (F)             | 72.0            | --              | --              | 72.0            | 73.7            | 73.0                  | 72.0            | 72.0            | 72.6            | 71.7            | 71.9            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 79.0            | --              | --              |
|           | Tide - AM low            | 12:28           | 12:34           | 1:29            | 12:34           | 12:28           | 1:50                  | 12:33           | 12:47           | --              | --              | --              |
|           | Tide - PM low            | 12:17           | 12:23           | 2:01            | 12:23           | 12:17           | 1:39                  | 12:22           | 12:36           | --              | --              | --              |
|           | Tide - AM high           | 6:55            | 7:01            | 7:49            | 6:48            | 6:51            | 7:29                  | 6:48            | 6:39            | --              | --              | --              |
|           | Tide - PM high           | 7:16            | 7:22            | 8:11            | 7:09            | 7:12            | 7:50                  | 7:09            | 7:00            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 8/28/2011 | Precipitation (in)       | 1.53            | --              | 0.27            | 0.15            | 0.51            | 0.48                  | 1.18            | 0.28            | 0.79            | 1.87            | 0.01            |
|           | Wind Speed (mph)         | 25.0            | --              | 11.5            | 18.0            | 6.2             | 23.0                  | 12.6            | --              | 1.8             | 6.9             | 9.7             |
|           | Wind Direction           | SSE             | --              | SE              | ESE             | E               | SSE                   | S               | --              | ENE             | SE              | ESE             |
|           | Air Temp (F)             | 71.0            | --              | 70.9            | 73.0            | 75.3            | 70.0                  | 70.4            | 72.4            | 74.4            | 72.5            | 74.4            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 1:08            | 1:14            | 2:12            | 1:14            | 1:08            | 2:30                  | 1:13            | 1:27            | --              | --              | --              |
|           | Tide - PM low            | 1:09            | 1:15            | 2:52            | 1:15            | 1:09            | 2:31                  | 1:14            | 1:28            | --              | --              | --              |
|           | Tide - AM high           | 7:43            | 7:49            | 8:38            | 7:36            | 7:39            | 8:17                  | 7:36            | 7:27            | --              | --              | --              |
|           | Tide - PM high           | 8:04            | 8:10            | 9:01            | 7:57            | 8:00            | 8:38                  | 7:57            | 7:48            | --              | --              | --              |
|           | Lunar cycle              | Waning Crescent       | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent | Waning Crescent |
| 8/29/2011 | Precipitation (in)       | 0.00            | --              | 0.60            | --              | --              | 0.00                  | 0.00            | 0.00            | --              | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 7.0             | --              | 2.0             | --              | --              | 7.0                   | 3.3             | --              | --              | 0.4             | 0.1             |
|           | Wind Direction           | W               | --              | WSW             | --              | --              | WSW                   | NW              | --              | --              | WSW             | NW              |
|           | Air Temp (F)             | 69.0            | --              | 69.5            | --              | --              | 67.0                  | 65.3            | 68.3            | --              | 65.1            | 63.3            |
|           | Water Temp (F)           | --              | --              | 74.1            | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 1:48            | 1:54            | 2:57            | 1:54            | 1:48            | 3:10                  | 1:53            | 2:07            | --              | --              | --              |
|           | Tide - PM low            | 2:00            | 2:06            | 3:43            | 2:06            | 2:00            | 3:22                  | 2:05            | 2:19            | --              | --              | --              |
|           | Tide - AM high           | 8:31            | 8:37            | 9:29            | 8:24            | 8:27            | 9:05                  | 8:24            | 8:15            | --              | --              | --              |
|           | Tide - PM high           | 8:51            | 8:57            | 9:52            | 8:44            | 8:47            | 9:25                  | 8:44            | 8:35            | --              | --              | --              |
|           | Lunar cycle              | New Moon              | New Moon        | New Moon        | New Moon        | New Moon        | New Moon        |
| 8/30/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | --              | 1.21            | 0.00            |
|           | Wind Speed (mph)         | 4.0             | --              | 0.1             | 4.0             | 0.0             | 2.0                   | 0.7             | --              | --              | 0.2             | 0.9             |
|           | Wind Direction           | WSW             | --              | WNW             | S               | S               | SSW                   | NNW             | --              | --              | N               | W               |
|           | Air Temp (F)             | 69.0            | --              | 59.7            | 71.0            | 60.1            | 66.0                  | 66.2            | 67.2            | --              | 69.6            | 66.9            |
|           | Water Temp (F)           | --              | --              | 74.2            | --              | 73.2            | 72.1                  | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 2:28            | 2:34            | 3:42            | 2:34            | 2:28            | 3:50                  | 2:33            | 2:47            | --              | --              | --              |
|           | Tide - PM low            | 2:51            | 2:57            | 4:34            | 2:57            | 2:51            | 4:13                  | 2:56            | 3:10            | --              | --              | --              |
|           | Tide - AM high           | 9:19            | 9:25            | 10:21           | 9:12            | 9:15            | 9:53                  | 9:12            | 9:03            | --              | --              | --              |
|           | Tide - PM high           | 9:40            | 9:46            | 10:45           | 9:33            | 9:36            | 10:14                 | 9:33            | 9:24            | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 8/31/2011 | Precipitation (in)       | 0.00            | --              | 0.01            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | --              | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 3.0             | --              | 0.0             | 1.0             | 1.0             | 1.0                   | 0.8             | --              | --              | 0.0             | 1.3             |
|           | Wind Direction           | SSW             | --              | S               | SE              | E               | SW                    | NW              | --              | --              | NE              | NE              |
|           | Air Temp (F)             | 71.0            | --              | 69.4            | 70.0            | 72.7            | 68.0                  | 68.9            | 70.2            | --              | 67.6            | 70.1            |
|           | Water Temp (F)           | --              | --              | --              | --              | 73.8            | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 3:09            | --              | 3:42            | 3:15            | 3:09            | 4:31                  | 3:14            | 3:28            | --              | --              | --              |
|           | Tide - PM low            | 3:41            | --              | 4:34            | 3:47            | 3:41            | 5:03                  | 3:46            | 4:00            | --              | --              | --              |
|           | Tide - AM high           | 10:09           | --              | 10:45           | 10:02           | 10:05           | 10:43                 | 10:02           | 9:53            | --              | --              | --              |
|           | Tide - PM high           | 10:30           | 10:36           | 10:21           | 10:23           | 10:26           | 11:04                 | 10:23           | 10:14           | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 9/1/2011  | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | --              | 0.00            | 0.00            |
|           | Wind Speed (mph)         | 5.0             | --              | 0.1             | 4.0             | 0.9             | 2.0                   | 1.2             | --              | --              | 0.2             | 1.7             |
|           | Wind Direction           | E               | --              | ESE             | ESE             | E               | ESE                   | SSE             | --              | --              | SSE             | E               |
|           | Air Temp (F)             | 69.0            | --              | 68.7            | 67.0            | 73.5            | 67.0                  | 67.2            | 67.5            | --              | 66.8            | 68.3            |
|           | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|           | Tide - AM low            | 3:51            | 3:57            | 4:08            | 3:57            | 3:51            | 5:13                  | 3:56            | 4:10            | --              | --              | --              |
|           | Tide - PM low            | 4:31            | 4:37            | 4:48            | 4:37            | 4:31            | 5:53                  | 4:36            | 4:50            | --              | --              | --              |
|           | Tide - AM high           | 11:01           | 11:07           | 10:43           | 10:54           | 10:57           | 11:35                 | 10:54           | 10:45           | --              | --              | --              |
|           | Tide - PM high           | 11:23           | 11:29           | 11:05           | 11:16           | 11:19           | 11:57                 | 11:16           | 11:07           | --              | --              | --              |
|           | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |

2011 Meterological Data

| Date     | Meteorological Condition | Warwick         | Bristol         | Narragansett    | Newport         | North Kingstown | Westerly - Watch Hill | Tiverton        | Little Compton  | Johnston        | Coventry        | Cumberland      |
|----------|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 9/2/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 6.0             | --              | 0.5             | 6.0             | 0.9             | 4.0                   | 0.7             | --              | 0.3             | 0.4             | 2.0             |
|          | Wind Direction           | NE              | --              | NE              | NNE             | ESE             | NE                    | SE              | --              | NE              | NNE             | ENE             |
|          | Air Temp (F)             | 68.0            | --              | 65.9            | 65.0            | 69.6            | 64.0                  | 64.6            | 65.3            | 69.9            | 64.8            | 64.8            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 4:34            | 4:00            | 4:51            | 4:40            | 4:34            | 5:56                  | 4:39            | 4:53            | --              | --              | --              |
|          | Tide - PM low            | 5:25            | 5:31            | 5:42            | 5:31            | 5:25            | 6:47                  | 5:30            | 5:44            | --              | --              | --              |
|          | Tide - AM high           | 11:55           | --              | 11:37           | 11:48           | 11:51           | --                    | 11:48           | 11:39           | --              | --              | --              |
|          | Tide - PM high           | --              | 12:01           | --              | --              | --              | 12:29                 | --              | --              | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 9/3/2011 | Precipitation (in)       | 0.00            | --              | 0.01            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 8.0             | --              | 1.7             | 4.0             | 3.8             | 6.0                   | 2.5             | --              | 0.8             | 1.1             | 1.1             |
|          | Wind Direction           | SSW             | --              | SSW             | SSW             | SW              | SW                    | SW              | --              | WSW             | S               | SW              |
|          | Air Temp (F)             | 71.0            | --              | 68.5            | 64.0            | 78.0            | 66.0                  | 66.7            | 67.1            | 70.8            | 69.2            | 70.9            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | --              | --              |
|          | Tide - AM low            | 5:21            | 5:27            | 5:38            | 5:27            | 5:21            | 6:43                  | 5:26            | 5:40            | --              | --              | --              |
|          | Tide - PM low            | 6:29            | 6:35            | 6:46            | 6:35            | 6:29            | 7:51                  | 6:34            | 6:48            | --              | --              | --              |
|          | Tide - AM high           | 12:18           | 12:24           | 12:00           | 12:11           | 12:14           | 12:52                 | 12:11           | 12:02           | --              | --              | --              |
|          | Tide - PM high           | 12:52           | 12:58           | 12:34           | 12:45           | 12:48           | 1:26                  | 12:45           | 12:36           | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 9/4/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 9.0             | --              | 1.3             | 7.0             | 2.4             | 7.0                   | 2.7             | --              | 0.7             | 1.7             | 1.7             |
|          | Wind Direction           | SSW             | --              | SW              | SSW             | SW              | SSW                   | SW              | --              | WSW             | S               | SSE             |
|          | Air Temp (F)             | 75.0            | --              | 71.2            | 72.0            | 74.2            | 72.0                  | 69.4            | 69.7            | 73.6            | 72.2            | 73.4            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | 78.1            | --              | --              |
|          | Tide - AM low            | 6:14            | 6:20            | 6:31            | 6:20            | 6:14            | 7:36                  | 5:26            | 6:33            | --              | --              | --              |
|          | Tide - PM low            | 8:21            | 8:27            | 8:38            | 8:27            | 8:21            | 9:43                  | 6:34            | 8:40            | --              | --              | --              |
|          | Tide - AM high           | 1:15            | 1:21            | 12:57           | 1:08            | 1:11            | 1:49                  | 1:08            | 12:59           | --              | --              | --              |
|          | Tide - PM high           | 1:52            | 1:58            | 1:34            | 1:45            | 1:48            | 2:26                  | 1:45            | 1:36            | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |
| 9/5/2011 | Precipitation (in)       | 0.00            | --              | 0.00            | 0.00            | 0.00            | 0.00                  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
|          | Wind Speed (mph)         | 11.0            | --              | 1.4             | 10.0            | 3.9             | 9.0                   | 3.5             | --              | 1.4             | 2.8             | 2.7             |
|          | Wind Direction           | SSW             | --              | S               | S               | SW              | SSW                   | SW              | --              | WSW             | S               | SSE             |
|          | Air Temp (F)             | 75.0            | --              | 73.7            | 72.0            | 75.3            | 74.0                  | 71.1            | 71.4            | 74.7            | 73.1            | 74.7            |
|          | Water Temp (F)           | --              | --              | --              | --              | --              | --                    | --              | --              | --              | 75.2            | --              |
|          | Tide - AM low            | 7:22            | 7:28            | 7:39            | 7:28            | 7:22            | 8:44                  | 7:27            | 7:41            | --              | --              | --              |
|          | Tide - PM low            | 9:52            | 9:58            | 10:09           | 9:58            | 9:52            | 11:14                 | 9:57            | 10:11           | --              | --              | --              |
|          | Tide - AM high           | 2:16            | 2:22            | 1:58            | 2:09            | 2:12            | 2:50                  | 2:09            | 2:00            | --              | --              | --              |
|          | Tide - PM high           | 2:55            | 3:01            | 2:37            | 2:48            | 2:51            | 3:29                  | 2:48            | 2:39            | --              | --              | --              |
|          | Lunar cycle              | Waxing Crescent       | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent | Waxing Crescent |

Notes

- Precipitation reported, T=Trace Precipitation
- Greater than or equal to 0.5 inches of precipitation reported
- No data Available
- Wind Direction - N=North, S=South, E=East, and W=West
- n/a - Not Applicable

Tides

- Warwick - Conanicut Point
- Bristol - Bristol
- Narragansett - Narragansett Pier
- Newport - Newport
- North Kingstown - Wickford
- Westerly - Watch Hill Point
- Tiverton - Tiverton
- Little Compton - Sakonnet

**Appendix H**

Geometric Mean of Enterococci Bacteria in Rhode Island

| Geomeans of Enterococci Bacteria in RI<br>(Safe limit = 35cfu/100ml) |       |       |       |       |       |       |       |       |       |        |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Beach  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011   |
| Allies   | 17.32 | 10.00 | 13.55 | 13.26 | 10.00 | 10.00 | 10.00 | 12.65 | 13.20 | 10.00  |
| Andrea Hotel   | 14.58 | 10.00 | 11.67 | 14.14 | 10.00 | 12.23 | 10.00 | 21.68 | 13.26 | 10.00  |
| Atlantic Beach Casino  | 10.00 | 19.49 | 11.22 | 10.00 | 10.00 | 10.00 | 10.00 | 12.08 | 11.22 | 10.00  |
| Atlantic Beach Club  | 27.02 | 87.89 | 48.40 | 33.69 | 76.94 | 29.23 | 32.44 | 55.53 | 30.60 | 22.38  |
| Atlantic Beach Park  | 10.00 | 10.00 | 10.00 | 11.93 | 11.70 | 10.00 | 10.00 | 14.92 | 13.91 | 10.00  |
| Atlantic Pizza & Grill   | 20.25 | 10.00 | 11.22 | 10.00 | 10.00 | 10.00 | 10.00 | 12.23 | 14.31 | 10.00  |
| Ballards Inn   | N/A   | 11.89 | 10.00 | n/a   | 20.28 | 10.00 | 24.28 | 10.00 | --    | --     |
| Barrington Town Beach  | 13.06 | 59.03 | 16.45 | 16.53 | 26.82 | 17.01 | 17.67 | 23.21 | 13.71 | 17.05  |
| Blue Shutters Beach  | 11.75 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 14.45 | 15.38  |
| Bonnet Shores Beach  | 12.01 | 13.19 | 15.42 | 10.37 | 19.82 | 12.58 | 14.09 | 19.97 | 11.28 | 11.39  |
| Breezeway Beach  | --    | --    | --    | --    | --    | --    | --    | --    | 17.32 | 10.00  |
| Briggs Beach   | 10.00 | 14.31 | 15.15 | 10.00 | 12.66 | 10.00 | 11.34 | 12.28 | 10.72 | 16.34  |
| Bristol Town Beach   | 45.12 | 30.31 | 15.29 | 20.21 | 42.86 | 15.13 | 19.35 | 29.76 | 19.55 | 27.20  |
| Camp Fuller  | 11.22 | 29.94 | 13.12 | 10.00 | 28.72 | 10.00 | 18.77 | 21.59 | 33.45 | 33.07  |
| Camp Grosvenor   | 22.29 | 25.14 | 29.43 | 20.64 | 20.44 | 18.13 | 51.18 | 25.64 | 21.23 | 18.19  |
| Camp St. Dorothy   | 44.40 | 18.70 | 20.11 | 16.98 | 30.94 | 14.02 | 11.08 | 40.15 | 29.94 | 16.58  |
| C. Roger Wheeler Beach   | 16.77 | 12.00 | 14.98 | 10.85 | 15.38 | 13.77 | 10.00 | 12.14 | 12.16 | 11.34  |
| Charlestown Breachway  | 13.01 | 12.46 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 14.12 | 10.80 | 19.10  |
| Charlestown Town Beach   | 12.66 | 28.89 | 11.18 | 10.97 | 10.00 | 10.00 | 10.00 | 12.30 | 10.59 | 11.82  |
| City Park Beach  | 17.81 | 70.25 | 17.90 | 28.02 | 28.04 | 22.31 | 20.43 | 15.53 | 15.55 | 13.89  |
| Conimicut Point Beach  | 27.93 | 74.71 | 22.16 | 30.27 | 46.84 | 20.58 | 28.64 | 27.69 | 36.93 | 27.71  |
| Dunes Club   | 17.69 | 14.67 | 11.50 | 10.35 | 10.56 | 10.69 | 14.78 | 15.64 | 14.98 | 12.27  |
| Dunes Park   | 10.00 | 10.00 | 16.62 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00  |
| East Beach   | 10.72 | 26.04 | 10.63 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 11.21 | 16.22  |
| East Matunuck Beach  | 10.00 | 10.00 | 11.16 | 10.00 | 10.00 | 10.80 | 11.22 | 10.00 | 10.00 | 10.80  |
| Easton's Beach   | 19.57 | 30.61 | 50.29 | 20.08 | n/a   | 26.97 | 34.18 | 27.18 | 33.21 | 26.01  |
| Fogland Beach  | 15.52 | 11.93 | 14.85 | 10.71 | 16.68 | 10.59 | 11.53 | 16.35 | 15.31 | 12.00  |
| Fort Adams State Park  | 19.62 | 22.65 | 18.44 | 14.00 | 20.45 | 12.56 | 13.03 | 18.39 | 14.89 | 14.11  |
| Fred Benson Town Beach   | n/a   | 10.00 | 10.00 | 10.00 | 34.79 | 10.00 | 10.00 | 10.00 | 10.00 | 14.06  |
| Galilee Beach Club Assoc.  | 12.08 | 19.78 | 11.49 | 10.00 | 10.00 | 10.00 | 10.00 | 13.91 | 10.00 | 10.00  |
| Goddard Park   | 15.85 | 33.18 | 14.96 | 20.18 | 19.87 | 16.69 | 17.28 | 36.91 | 28.90 | 24.13  |
| Gooseberry Beach   | 29.01 | 16.92 | 13.00 | 10.34 | 13.61 | 10.44 | 10.59 | 13.91 | 10.00 | 13.97  |
| Goosewing Beach  | 10.00 | 10.00 | 14.28 | 12.54 | 10.00 | 10.63 | 10.00 | 12.42 | 12.14 | 13.40  |
| Green Hill Beach   | --    | --    | --    | --    | --    | --    | --    | --    | 10.00 | 13.69  |
| Grinell's Beach  | 24.78 | 11.22 | 13.87 | 13.70 | 14.70 | 10.00 | 10.92 | 16.99 | 25.27 | 11.34  |
| Hazard's Beach   | 12.46 | 13.59 | 19.33 | 10.99 | 12.56 | 14.75 | 16.30 | 16.58 | 42.08 | 10.72  |
| Jim's Trailer Park   | 10.00 | 10.00 | 10.80 | 10.00 | 10.00 | 11.89 | 13.26 | 10.00 | 15.60 | 11.22  |
| King Park Beach  | 22.92 | 23.04 | 29.06 | --    | --    | --    | 20.56 | 21.95 | 26.46 | 21.26  |
| Mackerel Cove Beach  | 12.60 | 36.25 | 16.92 | 13.14 | 18.19 | 11.48 | 23.31 | 12.26 | 10.63 | 22.61  |
| Matunuck Town Beach  | 10.91 | 11.22 | 10.71 | 11.22 | 21.29 | 10.00 | 19.02 | 14.37 | 12.70 | 10.34  |
| Misquamicut Club   | 10.00 | 58.78 | 12.20 | 19.11 | 15.01 | 10.00 | 10.00 | 10.00 | 10.00 | 10.80  |
| Misquamicut Fire District Beaches                                    | 12.08 | 10.00 | 11.13 | 10.00 | 10.00 | 10.00 | 10.55 | 11.82 | 11.61 | 10.65  |
| Misquamicut State Beach  | 10.47 | 11.78 | 12.32 | 10.81 | 10.77 | 11.27 | 11.37 | 13.20 | 10.00 | 13.06  |
| Narragansett Town Beach  | 11.45 | 12.78 | 10.48 | 10.18 | 14.28 | 10.49 | 11.21 | 15.62 | 10.65 | 11.19  |
| North Kingstown Town Beach   | 15.23 | 28.78 | 21.05 | 13.15 | 16.18 | 23.69 | 12.95 | 24.64 | 13.59 | 12.30  |
| Oakland Beach  | 17.07 | 41.46 | 24.75 | 27.42 | 26.78 | 20.52 | 20.79 | 21.12 | 22.18 | 29.16  |
| Ocean House  | 11.89 | 10.00 | 10.00 | 11.22 | 10.00 | n/a   | 10.00 | 13.01 | 10.00 | 10.00  |
| Paddy's Beach  | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 12.98 | 10.00 | 11.22 | 12.46 | 10.00  |
| Peabody's Beach  | n/a   | 43.45 | 24.71 | 11.97 | 23.17 | 10.80 | 18.61 | 28.61 | 18.93 | 12.33  |
| Pleasant View Inn  | n/a   | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 | 17.69 | 13.20 | 11.22  |
| Plum Beach Club  | 12.46 | 11.22 | 13.46 | 12.97 | 24.23 | 16.83 | 11.49 | 41.68 | 15.23 | 13.47  |
| Roy Carpenter's Beach  | 20.98 | 11.89 | 11.22 | 10.00 | 11.79 | 31.56 | 10.00 | 10.72 | 10.00 | 12.08  |
| Sachuest Beach   | 12.60 | 10.00 | 13.21 | 10.90 | 13.11 | 10.95 | 12.10 | 17.47 | 13.15 | 12.41  |
| Salty Brine Beach  | 15.23 | 24.49 | 11.93 | 10.00 | 13.16 | 18.24 | 17.43 | 18.88 | 10.00 | 28.02  |
| Sam's Beach  | 17.32 | 10.00 | 10.00 | 10.80 | 10.00 | 11.49 | 13.80 | 14.45 | 11.22 | 10.00  |
| Sandy Point Beach  | 10.00 | 11.22 | 13.43 | 14.69 | 14.54 | 10.44 | 12.82 | 35.54 | 19.31 | 22.23  |
| Sandy Shore Motel  | 10.00 | 10.00 | 13.55 | 10.00 | 10.00 | 10.00 | 10.00 | 19.22 | 10.00 | 11.22  |
| Saunderstown Yacht Club  | n/a   | 51.86 | 37.22 | 12.88 | 35.67 | 14.12 | 14.80 | 36.97 | 10.00 | 14.31  |
| Scarborough State Beach North  | 14.36 | 16.54 | 23.00 | 15.33 | 18.17 | 22.87 | 15.69 | 17.99 | 15.89 | 17.84  |
| Scarborough State Beach South  | 19.71 | 19.40 | 23.49 | 16.63 | 22.11 | 20.60 | 12.96 | 19.52 | 16.48 | 16.54  |
| Seaside Beach Club   | 10.00 | 10.00 | 20.08 | 10.00 | 10.00 | 10.00 | 12.66 | 12.54 | 12.23 | 23.99  |
| South Shore Beach  | 10.00 | 16.49 | 15.15 | 10.00 | 10.00 | 10.88 | 10.59 | 19.88 | 10.96 | 13.16  |
| Spouting Rock Beach Assoc  | 13.16 | 60.30 | 39.83 | 11.04 | 20.77 | 10.00 | 14.74 | 27.17 | 12.07 | 16.88  |
| Surf Hotel   | n/a   | 10.00 | n/a   | n/a   | 14.14 | 25.25 | 14.14 | 10.00 | 10.00 | closed |
| Third Beach  | n/a   | n/a   | 16.59 | 16.35 | 26.25 | 15.84 | 17.49 | 35.51 | 18.35 | 19.30  |
| Warren Town Beach  | 23.38 | 68.30 | 11.59 | 24.08 | 40.85 | 25.12 | 17.27 | 21.96 | 20.81 | 17.65  |
| Warren's Point Beach Club  | 10.00 | 19.89 | 10.91 | 10.55 | 10.00 | 11.22 | 14.90 | 11.70 | 12.60 | 15.62  |
| Watch Hill Carousel Beach  | --    | --    | --    | --    | --    | --    | --    | --    | --    | 10.00  |
| Weekapaug Fire District Beaches                                      | n/a   | n/a   | 13.01 | 10.00 | 10.00 | 10.00 | 10.56 | 10.71 | 10.61 | 10.47  |
| Westerly Town Beach New  | 10.00 | 10.00 | 10.00 | 10.00 | 12.60 | 10.00 | 14.70 | 16.35 | 13.46 | 11.04  |
| Westerly Town Beach Old  | 10.00 | 22.15 | 12.65 | 10.00 | 10.00 | 10.00 | 12.25 | 15.00 | 10.39 | 10.51  |
| Willow Dell Beach Club   | n/a   | 10.00 | 15.13 | 10.00 | 16.04 | 10.72 | 12.53 | 11.22 | 10.00 | 14.01  |

Notes:  
-- = no data  
closed - Facility is closed

**Appendix I**  
2011 Urban Beach Initiative Water Data

| <b>URBAN INITIATIVE BEACH PROJECT</b> |                              |                  |               |
|---------------------------------------|------------------------------|------------------|---------------|
| <b>SAMPLE LOCATION</b>                | <b>DATE and TIME SAMPLED</b> | <b>TESTED BY</b> | <b>RESULT</b> |
| Sabin's Point Center                  | 6/1/11 6:35 AM               | HEALTH Staff     | 203           |
| Gaspee Point Center                   | 6/1/11 6:40 AM               | HEALTH Staff     | 216           |
| Gaspee Point South                    | 6/1/11 6:40 AM               | HEALTH Staff     | 2755          |
| Rose Larissa South                    | 6/1/11 7:25 AM               | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 6/1/11 7:30 AM               | HEALTH Staff     | 30            |
| Rose Larissa North                    | 6/1/11 7:35 AM               | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 6/6/11 6:30 AM               | HEALTH Staff     | 10            |
| Gaspee Point North                    | 6/6/11 6:30 AM               | HEALTH Staff     | 10            |
| Gaspee Point South                    | 6/6/11 6:30 AM               | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 6/6/11 9:15 AM               | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 6/6/11 9:30 AM               | HEALTH Staff     | 10            |
| Rose Larissa North                    | 6/6/11 9:30 AM               | HEALTH Staff     | 10            |
| Rose Larissa South                    | 6/6/11 9:30 AM               | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 6/8/11 8:15 AM               | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 6/8/11 8:45 AM               | HEALTH Staff     | 10            |
| Rose Larissa North                    | 6/8/11 8:45 AM               | HEALTH Staff     | 10            |
| Rose Larissa South                    | 6/8/11 8:45 AM               | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 6/8/11 10:45 AM              | HEALTH Staff     | 10            |
| Gaspee Point North                    | 6/8/11 10:45 AM              | HEALTH Staff     | 10            |
| Gaspee Point South                    | 6/8/11 10:45 AM              | HEALTH Staff     | 85            |
| Gaspee Point Center                   | 6/13/11 6:30 AM              | HEALTH Staff     | 1223          |
| Gaspee Point North                    | 6/13/11 6:30 AM              | HEALTH Staff     | 987           |
| Gaspee Point South                    | 6/13/11 6:30 AM              | HEALTH Staff     | 1046          |
| Sabin's Point Center                  | 6/13/11 7:25 AM              | HEALTH Staff     | 410           |
| Rose Larissa Center                   | 6/13/11 8:10 AM              | HEALTH Staff     | 5794          |
| Rose Larissa North                    | 6/13/11 8:10 AM              | HEALTH Staff     | 4106          |
| Rose Larissa South                    | 6/13/11 8:10 AM              | HEALTH Staff     | 5172          |
| Bold Point-Point                      | 6/14/11 2:33 PM              | Save the Bay     | 30            |
| Bold Point-West                       | 6/14/11 2:37 PM              | Save the Bay     | 10            |
| Sabin's Point Center                  | 6/15/11 7:30 AM              | HEALTH Staff     | 231           |
| Rose Larissa Center                   | 6/15/11 7:45 AM              | HEALTH Staff     | 1014          |
| Rose Larissa North                    | 6/15/11 7:45 AM              | HEALTH Staff     | 1050          |
| Rose Larissa South                    | 6/15/11 7:45 AM              | HEALTH Staff     | 243           |
| Fields Point                          | 6/15/11 10:04 AM             | Save the Bay     | 10            |
| Bold Point-Point                      | 6/15/11 10:45 AM             | Save the Bay     | 10            |
| Bold Point-West                       | 6/15/11 10:51 AM             | Save the Bay     | 20            |
| Bold Point-East                       | 6/15/11 10:57 AM             | Save the Bay     | 97            |
| Gaspee Point Center                   | 6/15/11 11:10 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 6/15/11 11:10 AM             | HEALTH Staff     | 20            |
| Gaspee Point South                    | 6/15/11 11:10 AM             | HEALTH Staff     | 201           |
| Gaspee Point Center                   | 6/20/11 10:30 AM             | HEALTH Staff     | 10            |
| Gaspee Point South                    | 6/20/11 10:30 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 6/20/11 10:35 AM             | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 6/20/11 10:45 AM             | HEALTH Staff     | 10            |
| Rose Larissa North                    | 6/20/11 10:45 AM             | HEALTH Staff     | 52            |
| Rose Larissa South                    | 6/20/11 10:45 AM             | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 6/20/11 11:00 AM             | HEALTH Staff     | 52            |
| Bold Point-Point                      | 6/21/11 1:51 PM              | Save the Bay     | 10            |
| Bold Point-West                       | 6/21/11 1:55 PM              | Save the Bay     | 10            |

| <b>URBAN INITIATIVE BEACH PROJECT</b> |                              |                  |               |
|---------------------------------------|------------------------------|------------------|---------------|
| <b>SAMPLE LOCATION</b>                | <b>DATE and TIME SAMPLED</b> | <b>TESTED BY</b> | <b>RESULT</b> |
| Bold Point-East                       | 6/21/11 2:00 PM              | Save the Bay     | 20            |
| Gaspee Point Center                   | 6/22/11 6:30 AM              | HEALTH Staff     | 173           |
| Gaspee Point North                    | 6/22/11 6:30 AM              | HEALTH Staff     | 97            |
| Gaspee Point South                    | 6/22/11 6:30 AM              | HEALTH Staff     | 146           |
| Sabin's Point Center                  | 6/22/11 8:15 AM              | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 6/22/11 8:40 AM              | HEALTH Staff     | 20            |
| Rose Larissa North                    | 6/22/11 8:40 AM              | HEALTH Staff     | 20            |
| Rose Larissa South                    | 6/22/11 8:40 AM              | HEALTH Staff     | 10            |
| Fields Point                          | 6/22/11 9:15 AM              | Save the Bay     | 31            |
| Bold Point-Point                      | 6/22/11 9:54 AM              | Save the Bay     | 10            |
| Bold Point-West                       | 6/22/11 10:00 AM             | Save the Bay     | 432           |
| Bold Point-East                       | 6/22/11 10:03 AM             | Save the Bay     | 74            |
| Sabin's Point Center                  | 6/27/11 7:29 AM              | HEALTH Staff     | 10            |
| Rose Larissa South                    | 6/27/11 7:50 AM              | HEALTH Staff     | 86            |
| Rose Larissa Center                   | 6/27/11 7:52 AM              | HEALTH Staff     | 231           |
| Rose Larissa North                    | 6/27/11 7:54 AM              | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 6/27/11 11:30 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 6/27/11 11:30 AM             | HEALTH Staff     | 10            |
| Gaspee Point South                    | 6/27/11 11:30 AM             | HEALTH Staff     | 10            |
| Bold Point-Point                      | 6/28/11 9:30 AM              | Save the Bay     | 10            |
| Bold Point-West                       | 6/28/11 9:37 AM              | Save the Bay     | 31            |
| Bold Point-East                       | 6/28/11 9:41 AM              | Save the Bay     | 63            |
| Gaspee Point South                    | 6/29/11 6:35 AM              | HEALTH Staff     | 41            |
| Gaspee Point Center                   | 6/29/11 6:38 AM              | HEALTH Staff     | 98            |
| Gaspee Point North                    | 6/29/11 6:44 AM              | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 6/29/11 7:30 AM              | HEALTH Staff     | 20            |
| Rose Larissa Center                   | 6/29/11 8:15 AM              | HEALTH Staff     | 240           |
| Rose Larissa North                    | 6/29/11 8:15 AM              | HEALTH Staff     | 41            |
| Rose Larissa South                    | 6/29/11 8:15 AM              | HEALTH Staff     | 84            |
| Fields Point                          | 6/29/11 9:23 AM              | Save the Bay     | 10            |
| Bold Point-East                       | 6/29/11 9:53 AM              | Save the Bay     | 97            |
| Bold Point-West                       | 6/29/11 10:02 AM             | Save the Bay     | 10            |
| Bold Point-Point                      | 6/29/11 10:05 AM             | Save the Bay     | 10            |
| Gaspee Point Center                   | 7/6/11 6:40 AM               | HEALTH Staff     | 185           |
| Gaspee Point North                    | 7/6/11 6:40 AM               | HEALTH Staff     | 63            |
| Gaspee Point South                    | 7/6/11 6:40 AM               | HEALTH Staff     | 166           |
| Sabin's Point Center                  | 7/6/11 9:00 AM               | HEALTH Staff     | 10            |
| Fields Point                          | 7/6/11 9:08 AM               | Save the Bay     | 10            |
| Rose Larissa Center                   | 7/6/11 9:30 AM               | HEALTH Staff     | 10            |
| Rose Larissa North                    | 7/6/11 9:30 AM               | HEALTH Staff     | 10            |
| Rose Larissa South                    | 7/6/11 9:30 AM               | HEALTH Staff     | 10            |
| Bold Point-East                       | 7/6/11 9:35 AM               | Save the Bay     | 10            |
| Bold Point-Point                      | 7/6/11 9:42 AM               | Save the Bay     | 10            |
| Bold Point-West                       | 7/6/11 9:51 AM               | Save the Bay     | 354           |
| Bold Point-East                       | 7/7/11 9:23 AM               | Save the Bay     | 10            |
| Bold Point-West                       | 7/7/11 9:28 AM               | Save the Bay     | 161           |
| Bold Point-Point                      | 7/7/11 9:33 AM               | Save the Bay     | 281           |
| Sabin's Point Center                  | 7/11/11 8:10 AM              | HEALTH Staff     | 97            |
| Rose Larissa South                    | 7/11/11 8:27 AM              | HEALTH Staff     | 10            |

| <b>URBAN INITIATIVE BEACH PROJECT</b> |                              |                  |               |
|---------------------------------------|------------------------------|------------------|---------------|
| <b>SAMPLE LOCATION</b>                | <b>DATE and TIME SAMPLED</b> | <b>TESTED BY</b> | <b>RESULT</b> |
| Rose Larissa Center                   | 7/11/11 8:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa North                    | 7/11/11 8:33 AM              | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 7/11/11 10:45 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 7/11/11 10:45 AM             | HEALTH Staff     | 10            |
| Gaspee Point South                    | 7/11/11 10:45 AM             | HEALTH Staff     | 10            |
| Bold Point-Point                      | 7/12/11 9:30 AM              | Save the Bay     | 20            |
| Bold Point-West                       | 7/12/11 9:32 AM              | Save the Bay     | 733           |
| Bold Point-East                       | 7/12/11 9:35 AM              | Save the Bay     | 31            |
| Sabin's Point Center                  | 7/13/11 8:30 AM              | HEALTH Staff     | 860           |
| Rose Larissa Center                   | 7/13/11 9:15 AM              | HEALTH Staff     | 1918          |
| Rose Larissa North                    | 7/13/11 9:15 AM              | HEALTH Staff     | 1259          |
| Rose Larissa South                    | 7/13/11 9:15 AM              | HEALTH Staff     | 10            |
| Fields Point                          | 7/13/11 10:14 AM             | Save the Bay     | 10            |
| Bold Point-East                       | 7/13/11 11:09 AM             | Save the Bay     | 10            |
| Gaspee Point Center                   | 7/13/11 11:15 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 7/13/11 11:15 AM             | HEALTH Staff     | 10            |
| Gaspee Point South                    | 7/13/11 11:15 AM             | HEALTH Staff     | 10            |
| Bold Point-West                       | 7/13/11 11:16 AM             | Save the Bay     | 457           |
| Bold Point-Point                      | 7/13/11 11:20 AM             | Save the Bay     | 20            |
| Gaspee Point Center                   | 7/18/11 6:30 AM              | HEALTH Staff     | 20            |
| Gaspee Point North                    | 7/18/11 6:30 AM              | HEALTH Staff     | 30            |
| Gaspee Point South                    | 7/18/11 6:30 AM              | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 7/19/11 8:00 AM              | HEALTH Staff     | 20            |
| Sabin's Point Center                  | 7/19/11 8:00 AM              | HEALTH Staff     | 20            |
| Rose Larissa Center                   | 7/19/11 8:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 7/19/11 8:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa North                    | 7/19/11 8:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa North                    | 7/19/11 8:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa South                    | 7/19/11 8:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa South                    | 7/19/11 8:30 AM              | HEALTH Staff     | 10            |
| Fields Point                          | 7/19/11 9:36 AM              | Save the Bay     | 20            |
| Bold Point-East                       | 7/19/11 10:00 AM             | Save the Bay     | 20            |
| Bold Point-West                       | 7/19/11 10:03 AM             | Save the Bay     | 318           |
| Bold Point-Point                      | 7/19/11 10:07 AM             | Save the Bay     | 86            |
| Sabin's Point Center                  | 7/20/11 7:49 AM              | HEALTH Staff     | 10            |
| Rose Larissa South                    | 7/20/11 8:05 AM              | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 7/20/11 8:09 AM              | HEALTH Staff     | 10            |
| Rose Larissa North                    | 7/20/11 8:11 AM              | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 7/20/11 11:15 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 7/20/11 11:15 AM             | HEALTH Staff     | 10            |
| Gaspee Point South                    | 7/20/11 11:15 AM             | HEALTH Staff     | 10            |
| Bold Point-West                       | 7/21/11 9:28 AM              | Save the Bay     | 110           |
| Bold Point-Point                      | 7/21/11 9:33 AM              | Save the Bay     | 181           |
| Bold Point-East                       | 7/21/11 9:38 AM              | Save the Bay     | 52            |
| Sabin's Point Center                  | 7/25/11 8:45 AM              | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 7/25/11 9:10 AM              | HEALTH Staff     | 20            |
| Rose Larissa North                    | 7/25/11 9:10 AM              | HEALTH Staff     | 10            |
| Rose Larissa South                    | 7/25/11 9:10 AM              | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 7/25/11 11:17 AM             | HEALTH Staff     | 10            |

| <b>URBAN INITIATIVE BEACH PROJECT</b> |                              |                  |               |
|---------------------------------------|------------------------------|------------------|---------------|
| <b>SAMPLE LOCATION</b>                | <b>DATE and TIME SAMPLED</b> | <b>TESTED BY</b> | <b>RESULT</b> |
| Gaspee Point North                    | 7/25/11 11:20 AM             | HEALTH Staff     | 10            |
| Gaspee Point South                    | 7/25/11 11:23 AM             | HEALTH Staff     | 161           |
| Gaspee Point Center                   | 7/27/11 6:30 AM              | HEALTH Staff     | 52            |
| Gaspee Point North                    | 7/27/11 6:30 AM              | HEALTH Staff     | 10            |
| Gaspee Point South                    | 7/27/11 6:30 AM              | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 7/27/11 9:00 AM              | HEALTH Staff     | 98            |
| Bold Point-Point                      | 7/27/11 9:22 AM              | Save the Bay     | 10            |
| Bold Point-West                       | 7/27/11 9:25 AM              | Save the Bay     | 20            |
| Bold Point-East                       | 7/27/11 9:27 AM              | Save the Bay     | 10            |
| Rose Larissa Center                   | 7/27/11 9:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa North                    | 7/27/11 9:30 AM              | HEALTH Staff     | 305           |
| Rose Larissa South                    | 7/27/11 9:30 AM              | HEALTH Staff     | 20            |
| Fields Point                          | 7/28/11 9:25 AM              | Save the Bay     | 437           |
| Sabin's Point Center                  | 8/1/11 8:01 AM               | HEALTH Staff     | 41            |
| Rose Larissa South                    | 8/1/11 8:24 AM               | HEALTH Staff     | 187           |
| Rose Larissa Center                   | 8/1/11 8:27 AM               | HEALTH Staff     | 20            |
| Rose Larissa North                    | 8/1/11 8:33 AM               | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 8/1/11 11:30 AM              | HEALTH Staff     | 10            |
| Gaspee Point North                    | 8/1/11 11:30 AM              | HEALTH Staff     | 41            |
| Gaspee Point South                    | 8/1/11 11:30 AM              | HEALTH Staff     | 10            |
| Fields Point                          | 8/1/11 12:01 PM              | Save the Bay     | 86            |
| Gaspee Point South                    | 8/3/11 7:19 AM               | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 8/3/11 7:21 AM               | HEALTH Staff     | 10            |
| Gaspee Point North                    | 8/3/11 7:23 AM               | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 8/3/11 8:30 AM               | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 8/3/11 9:00 AM               | HEALTH Staff     | 20            |
| Rose Larissa North                    | 8/3/11 9:00 AM               | HEALTH Staff     | 31            |
| Rose Larissa South                    | 8/3/11 9:00 AM               | HEALTH Staff     | 63            |
| Bold Point-East                       | 8/3/11 9:26 AM               | Save the Bay     | 160           |
| Bold Point-West                       | 8/3/11 9:30 AM               | Save the Bay     | 20            |
| Bold Point-Point                      | 8/3/11 9:33 AM               | Save the Bay     | 10            |
| Gaspee Point Center                   | 8/10/11 6:30 AM              | HEALTH Staff     | 10            |
| Gaspee Point North                    | 8/10/11 6:30 AM              | HEALTH Staff     | 160           |
| Gaspee Point South                    | 8/10/11 6:30 AM              | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 8/10/11 8:40 AM              | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 8/10/11 9:10 AM              | HEALTH Staff     | 20            |
| Rose Larissa North                    | 8/10/11 9:10 AM              | HEALTH Staff     | 51            |
| Rose Larissa South                    | 8/10/11 9:10 AM              | HEALTH Staff     | 41            |
| Bold Point-East                       | 8/10/11 9:28 AM              | Save the Bay     | 464           |
| Bold Point-Point                      | 8/10/11 9:34 AM              | Save the Bay     | 121           |
| Bold Point-West                       | 8/10/11 9:37 AM              | Save the Bay     | 98            |
| Fields Point                          | 8/11/11 9:15 AM              | Save the Bay     | 884           |
| Bold Point-West                       | 8/11/11 9:52 AM              | Save the Bay     | 20            |
| Bold Point-East                       | 8/11/11 9:55 AM              | Save the Bay     | 109           |
| Bold Point-Point                      | 8/11/11 9:59 AM              | Save the Bay     | 52            |
| Sabin's Point Center                  | 8/15/11 8:30 AM              | HEALTH Staff     | 10            |
| Rose Larissa South                    | 8/15/11 8:43 AM              | HEALTH Staff     | 314           |
| Rose Larissa Center                   | 8/15/11 8:45 AM              | HEALTH Staff     | 272           |
| Rose Larissa North                    | 8/15/11 8:54 AM              | HEALTH Staff     | 1309          |

| <b>URBAN INITIATIVE BEACH PROJECT</b> |                              |                  |               |
|---------------------------------------|------------------------------|------------------|---------------|
| <b>SAMPLE LOCATION</b>                | <b>DATE and TIME SAMPLED</b> | <b>TESTED BY</b> | <b>RESULT</b> |
| Gaspee Point Center                   | 8/15/11 10:50 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 8/15/11 10:50 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 8/15/11 10:50 AM             | HEALTH Staff     | 17329         |
| Gaspee Point South                    | 8/15/11 10:50 AM             | HEALTH Staff     | 10            |
| Bold Point-Point                      | 8/16/11 9:19 AM              | Save the Bay     | 10            |
| Bold Point-West                       | 8/16/11 9:22 AM              | Save the Bay     | 10            |
| Bold Point-East                       | 8/16/11 9:25 AM              | Save the Bay     | 860           |
| Gaspee Point North                    | 8/17/11 6:39 AM              | HEALTH Staff     | 145           |
| Gaspee Point Center                   | 8/17/11 6:43 AM              | HEALTH Staff     | 134           |
| Gaspee Point South                    | 8/17/11 6:49 AM              | HEALTH Staff     | 30            |
| Sabin's Point Center                  | 8/17/11 8:10 AM              | HEALTH Staff     | 74            |
| Rose Larissa Center                   | 8/17/11 8:45 AM              | HEALTH Staff     | 145           |
| Rose Larissa North                    | 8/17/11 8:45 AM              | HEALTH Staff     | 143           |
| Rose Larissa South                    | 8/17/11 8:45 AM              | HEALTH Staff     | 63            |
| Bold Point-Point                      | 8/17/11 2:28 PM              | Save the Bay     | 10            |
| Bold Point-West                       | 8/17/11 2:34 PM              | Save the Bay     | 10            |
| Bold Point-East                       | 8/17/11 2:40 PM              | Save the Bay     | 354           |
| Fields Point                          | 8/17/11 3:00 PM              | Save the Bay     | 397           |
| Gaspee Point Center                   | 8/22/11 6:30 AM              | HEALTH Staff     | 880           |
| Gaspee Point North                    | 8/22/11 6:30 AM              | HEALTH Staff     | 771           |
| Gaspee Point South                    | 8/22/11 6:30 AM              | HEALTH Staff     | 561           |
| Sabin's Point Center                  | 8/22/11 9:25 AM              | HEALTH Staff     | 158           |
| Rose Larissa Center                   | 8/22/11 9:55 AM              | HEALTH Staff     | 10            |
| Rose Larissa North                    | 8/22/11 9:55 AM              | HEALTH Staff     | 20            |
| Rose Larissa South                    | 8/22/11 9:55 AM              | HEALTH Staff     | 10            |
| Gaspee Point Center                   | 8/24/20117:30 AM             | HEALTH Staff     | 10            |
| Gaspee Point North                    | 8/24/20117:30 AM             | HEALTH Staff     | 10            |
| Gaspee Point South                    | 8/24/20117:30 AM             | HEALTH Staff     | 10            |
| Rose Larissa Center                   | 8/24/20117:30 AM             | HEALTH Staff     | 31            |
| Rose Larissa North                    | 8/24/20117:30 AM             | HEALTH Staff     | 31            |
| Rose Larissa South                    | 8/24/20117:30 AM             | HEALTH Staff     | 10            |
| Sabin's Point Center                  | 8/24/20117:30 AM             | HEALTH Staff     | 63            |
| Rose Larissa Center                   | 8/30/20117:30 AM             | HEALTH Staff     | 313           |
| Rose Larissa North                    | 8/30/20117:30 AM             | HEALTH Staff     | 233           |
| Rose Larissa South                    | 8/30/20117:30 AM             | HEALTH Staff     | 216           |
| Rose Larissa Center                   | 8/31/20117:30 AM             | HEALTH Staff     | 41            |
| Rose Larissa North                    | 8/31/20117:30 AM             | HEALTH Staff     | 148           |
| Rose Larissa South                    | 8/31/20117:30 AM             | HEALTH Staff     | 41            |

**Appendix J**  
Copy of 2011 Water Use Survey

# 2011 Water Use Survey

## 1. 2011 Water Use Survey

Thank you for participating in the Beach Program 2011 Water Use Survey. The information gathered in this study will help HEALTH to better understand state wide year round water use and associated health risks.

Please answer all questions to the best of your ability.

## 2.

\* 1. User ID# provided by the Beach Program.

\* 2. Please enter the Beach Name/Location where you entered the water.

\* 3. Please enter the date and time you entered the water.

|         | MM                   | DD                   | YYYY                 | HH                   | MM                   | AM/PM                          |
|---------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------------|
| Entered | <input type="text"/> | <input type="text" value="6"/> |

Water:

4. How long did you spend in the water?

Less than 30 minutes

30 minutes to 1 hour

1 hour to 2 hours

More than 2 hours

5. Was your head submerged at anytime?

Yes

No

6. What were the water conditions like on the day you entered the water?

Flat/Calm

Choppy/Stormy

High Surf

Other (please specify)

7. Did you ingest any water?

Yes

No

# 2011 Water Use Survey

**8. Was there any vegetation or seaweed in the water?**

None-Little

Moderate

Heavy

**9. Were there any other people in the water?**

If so approximately  
how many?

**10. Did you notice any possible pollution sources (discharge pipes, street runoff, foul odors, animal waste, etc.)?**

Yes

No

If Yes, please describe:

**11. Have you experienced any skin problems or rashes since entering the water?**

Yes

No

If Yes, please describe:

**\* 12. Have you experienced any health problems that may be related to your water exposure?**

Yes

No

If Yes, please give a brief description and contact the Beach Program at 401-222-1406.