

**Oil Spill Prevention, Administration and Response  
(OSPAR) Fund**

**Annual Report  
FY 2014**



**Rhode Island Yacht Club**

**RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

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## Introduction

The Oil Spill Prevention Administration and Response (OSPAR) Fund, RIGL Chapter 46-12.7, was created in 1996 (modifying a prior statute adopted in 1990) in the aftermath of the environmentally devastating North Cape oil spill. The fund was created, and is continually supported, by the assessment of a \$0.05 per barrel fee on petroleum products received at marine terminals in Rhode Island. The purpose of OSPAR is multi-faceted. It provides funds to promptly respond, contain and remediate oil spills. OSPAR funds are also utilized to maintain a state of emergency response readiness through responder training and equipment acquisition. The fund further provides, in the event of a significant release, funding for emergency loans to workers affected by a spill as well as damage compensation of legitimate claims that cannot otherwise be compensated by responsible parties or the federal government. The funds and the operations conducted in accordance with the statute are managed by the Rhode Island Department of Environmental Management (DEM).

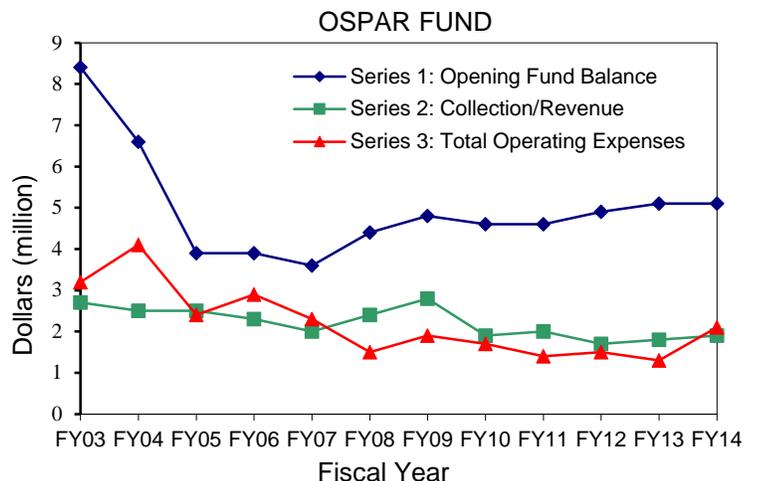
Section 46-12.7-7 of the statute requires the DEM Director to submit an annual report to the legislature on the OSPAR Fund. This report summarizes the status and use of the fund for FY 2014.

### Revenues & Expenditures – FY2014

The OSPAR account started FY 2014 with a balance forward of \$5,127,011. During FY 2014, the \$0.05 per barrel fee resulted in the collection of \$1,996,045 after the ten percent cost recovery fees. Personnel, operating and project expenditures for FY2014 totaled approximately \$2,112,851 that included \$250,000 for PORTS Navigational System for Narragansett Bay as well as a transfer of \$179,720 to Coastal Resource Management Council (CRMC) for the Coastal and Estuarine Habitat Restoration Trust Fund. In addition, \$250,000 for the River, Bays and Watersheds Coordination Teams. A detailed review of expenditures is provided in the expenditure section of the report.

Figure 1 provides an overview of the OSPAR Fund revenues and expenditure activities since fiscal year 2005.

The OSPAR fund reserve balance has not fully recovered since being utilized as state match for the Providence River dredging project in fiscal years 2003 and 2004. The project restored the shipping channel to the federally authorized dimensions of 40 foot depth and a channel width of 600 feet. Six million cubic yards of dredged material were removed during the project. The fiscal impact to OSPAR was 3.2 million dollars in FY2003 and 4.1 million dollars in FY2004.



Previously, net revenue, while relatively constant, had exhibited a declining trend until FY08. This is partially explained by an increase in cost recovery from 7 percent to 10 percent. In FY2014 the revenue and expenses have remained relatively constant.

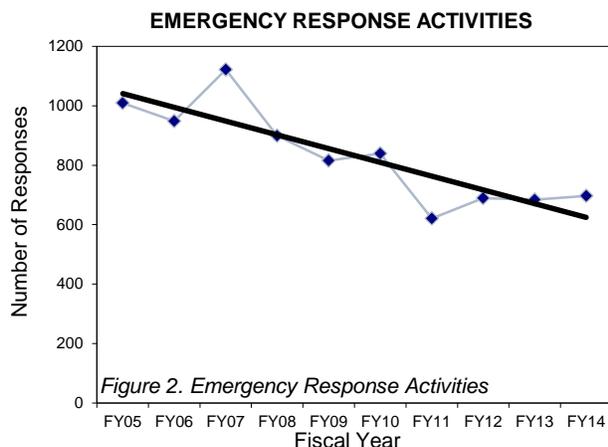
## ACTIVITIES– FY2014

### Summary

With regard to pre-spill preparedness, the OSPAR Fund was used in FY2014 for personnel and operating expenses. Personnel costs assigned to the OSPAR Fund included the following: Office of Emergency Response (Emergency Response Administrator, Administrative Officer and State Meteorologist) and partial salaries of four first responders; DEM GIS Supervisor (partial); staff from DEM Office of Waste Management. These salary and benefit costs totaled \$1,028,361. Major operating expenses charged to the OSPAR Fund included: vehicle readiness and maintenance (\$199,072); emergency response equipment, cleanup services, maintenance and supplies (\$70,257); computer hardware, software, telecommunications and miscellaneous (\$48,831), Pilot Navigation System (213,700), Audubon Society Narragansett Bay National Estuarine Research Reserve Coastal Training Program (\$36,062) and Dawley Park building utilities (\$4,188). These operating expenses totaled \$572,110.

In FY2014 the Office of Emergency Response (OER), which operates as an all hazard response program and incorporates the oil spill prevention and response functions of DEM, continued to be extremely active responding to oil spills, hazardous material incidents and other state emergencies. There were 697 emergency response investigations undertaken by the Office during FY2014. The incidents comprised two primary categories, hazardous material responses and oil spills. Seventy-four percent of these responses, a total of 513 incidents, were related to oil spills.

Figure 2 below, tracks the number of emergency response activities for a ten year period.



While there is some annual variation in the number of emergency responses, the trend of the data is now demonstrating a relatively constant average. Activities undertaken by the Department’s emergency response team have, on average, been constant since 2003 with annual fluctuations. This is also the first year since 2003 that seaweed\* removal from a few area beaches was not conducted. This appears to be a result of state regulations enacted in 2003 after a massive fish kill in Greenwich Bay that

required sewer treatment plants to reduce nitrogen discharges by 50 percent. These reductions were confirmed by URI oceanographers who have been studying the issue.

The installation of the stormwater storage tunnels by the Narragansett Bay Commission has reduced the level of bacteria in the bay and contribute to decreases in nutrient levels. These improvements have led to fewer beach closures, opening areas to swimming that have been closed for decades and provide clearer waters. It appears to have also reduced the amount of *Ulva Lactuca* that grows in several beach areas. Other than conducting beach inspections for seaweed, we did not spend FTE hours conducting seaweed removal.

\* The seaweed also known as sea lettuce, or *Ulva Lactuca*, is green algae that grow near and below the low tide mark. Under normal conditions it is beneficial to the environment. However, under certain conditions that may include excessive nutrients and warmer water temperatures, the growth of sea lettuce explodes. When the seaweed dies, wind and ocean currents can push and keep the decaying seaweed to the shoreline where it becomes stranded in the shallow water and forms large green mats. As these mats decay they can produce hydrogen sulfide (H<sub>2</sub>S), a gas with a foul or rotten egg odor. The decomposition of excessive sea lettuce in the Conimicut section of Warwick, the Still House Cove section of Cranston and the Riverside Terrace section of East Providence has resulted in the production of concentrations of H<sub>2</sub>S gas. These episodic H<sub>2</sub>S events create nuisance conditions and potential health concerns for those living in the area with compromised respiratory functions. Since the establishment of the program in 2003 several hundred cubic yards of sea lettuce have been removed from the environment and composted by the local cities impacted. From 2003 until 2006 the sea lettuce had been removed manually with OER personnel and prisoners. In 2006 the OER purchased a surf rake and John Deere tractor to more effectively remove the sea lettuce from the beaches, reducing the potential for the formation of H<sub>2</sub>S gas. Under the auspices of the OER, two seasonal employees, an equipment operator and a technical support intern, work the beaches to remove the seaweed during the summer months. As a result, complaints have been addressed by the ongoing seaweed removal and continuous field monitoring.

## **FY2014 EXPENDITURES**

### **Personnel**

- Partial salary and benefits of DEM Emergency Response Administrator
- Partial support for four other members of the DEM Emergency Response Team. All five personnel serve as first responders and are also responsible for administering the OSPAR Program both in terms of pre-spill readiness and post-spill response.
- An Administrative Officer is also part of the Emergency Response Office and the OSPAR program.
- A State Meteorologist to provide weather information before, during and post-spill response activities as well as provide trending climatological information for pre-spill preparedness.
- Partial support of salary and benefits of DEM geographic information system (GIS) Supervisor.

This individual is responsible for maintaining a comprehensive internet mapping application for planning, assessment and response to oil spills or other environmental emergencies in RI marine waters. This individual is also responsible for developing and maintaining a complete data inventory on an internal network capable of supporting

responders during an oil spill or other environmental emergency. In the event of a spill, the GIS Supervisor coordinates the collection and dissemination of spatial data documenting extent of spill, fish kills, etc. In the aftermath of a spill, support is also provided for natural resource damage assessments to aid in the collection of damages from responsible parties.

- Partial salaries and benefits for personnel from DEM Office of Waste Management.

### **Personnel Costs**

	<b>\$ 1,028,361</b>
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<b>Major Operating Expenses</b>	
Vehicle Purchases, Maintenance & Readiness	\$ 199,072
Cell phones, IT Support	\$ 14,862
Supplies: Office, Scientific, Miscellaneous	\$ 42,434
Equipment, Repairs & Cleanup Services	\$ 61,792
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	<b>\$ 318,160</b>
<b>Capital Projects</b>	
Narragansett Bay PORTS (Pilot Navigation System)	\$ 213,700
Design/Construction/Utilities Dawley Park ER/OSPAR	\$ 4,188
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	<b>\$ 217,888</b>
<b>Other Projects supported by the OSPAR Fund</b>	
Coastal and Estuarine Habitat Restoration Trust Fund	\$ 179,720
Rivers, Bays & Watershed Coordination Team	\$ 250,000
Audubon Society – Narragansett Bay Estuarine Program	\$ 36,062
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	<b>\$ 465,782</b>
<b>Total OSPAR Expenditures</b>	<b>\$2,030,191</b>

### **OIL SPILL CLEAN-UP ACTIVITIES**

The DEM emergency response team responded to 513 oil spills during FY2014. The amount of oil products and oil spill debris remediated or removed from the environment during these response activities was estimated to be 3,678 gallons of oil and 1053 tons of oil spill debris. The remediation work was completed by the OER, the OER contractors, the responsible party or their contractor. To ensure compliance with state and federal regulations, the work was conducted under the OER purview. The circumstances causing these releases and the environmental impacts generated were varied. The categories of oil spills and the relative percentages of each spill type are illustrated in figure 3.

### FY 2014

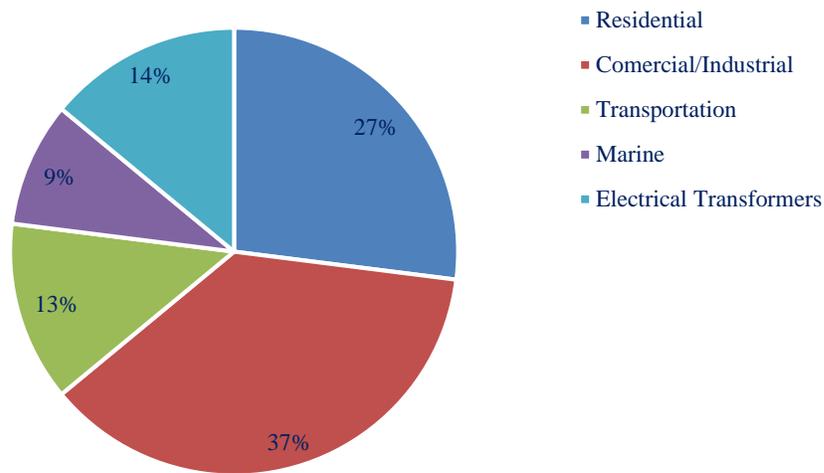
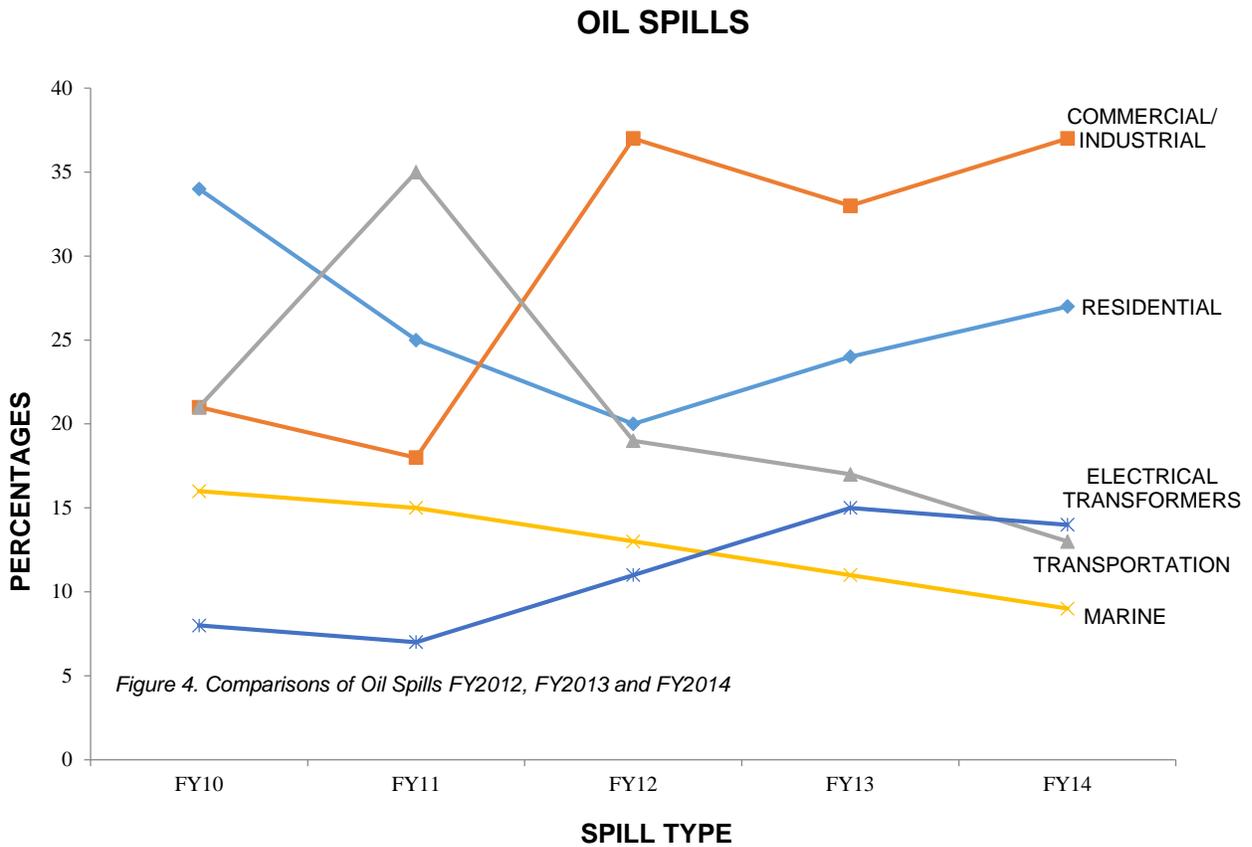


Figure 3. FY2014 Oil Spills by Category

The greatest percentage of spills, 37 percent, was related to commercial and industrial incidents. Residential oil spills comprised the next largest category accounting for 27 percent of department responses. Fuel oil spills in residential areas can contaminate drinking water wells, ground water, and soil; foul septic systems, requiring their replacement; cause odor and health problems in the home; and contaminate storm water drains, sewers, drainage ditches and surface water tributaries that lead to the Atlantic Ocean. The department has posted information on the Emergency Response web page regarding how to minimize the risk of a spill or release from a residential oil tank at <http://www.dem.ri.gov/news/2010/pr/0215101.htm>. DEM continues to conduct public outreach through press releases, television special reports and presentations to oil companies via insurance seminars. DEM also cooperated with the Oil Heat Institute to provide pertinent information to the oil service industry. Spills from electrical transformers comprised 14 percent of the spill events. Transportation related spills accounted for 13 percent of the spill events in FY2014. Personnel from the OER continue to meet with some of the electric companies to discuss electrical transformer issues and to assure the proper cleanup of mineral oil dielectric fluid (MODF) and PCB contaminated transformer oil. Oil spills in Narragansett Bay and other marine areas comprised 9 percent of response activities. The category and percentage of spills has remained relatively constant over the last few years.

Figure 4 compares the categories and spill percentages for the last three fiscal years.



## FY2014 OER Incidents and Drills

### Barge “DBL 102” Emergency 2/15/2014

On Saturday the 15<sup>th</sup> of February, the Tug Penn 4 was towing the barge DBL 102 that contained 100,000 barrels (4,200,000 gallon) of gasoline. The 381 foot barge was transiting from New York to Exxon Mobil in East Providence at approximately 2:30 pm. The tanker man discovered that an estimated 50 barrels of gasoline leaked out of #5 port aft tank and into the aft void while they were entering Narragansett Bay. The tug and barge continued to make its way to Exxon Mobil since there was no release to the environment and no ignition source in the void space. However, during the ensuing conference call the USCG, Exxon Mobil, DEM and the barge owner determined that the barge would not go to Mobil until a vessel survey was conducted and the damage determined. Instead the barge was to go to Anchorage Bravo north of Dyer Island where they could safely conduct hourly soundings to determine the rate of release into the void space. The USCG inspectors were transported by vessel to the barge where they conducted a vessel survey. At approximately 5:30 pm, soundings indicated that about 71 barrels were in the void space. At 7:42 pm, the amount of gasoline in the void space went up slightly and air monitoring results indicated elevated levels of flammable gasoline vapors at the vent but nothing beyond one foot of the aft rake vent. The closest hazard to



the vent was 28 feet away and all deck lighting was secured. Between Saturday and Wednesday several plans were reviewed and approved but in the end Exxon Mobil would not allow the barge to offload at their facility due to the inherent danger of the situation. On Sunday, it was determined that 157 barrels of gasoline had leaked into the void space and the marine chemist continued to conduct air monitoring for lower explosive level (LEL). On Tuesday night, the owner wanted to send the full barge back to NY but USCG and DEM determined that it was not the safest option and requested the owner to provide another proposal. The final plan was to have another empty barge from NY come up and offload the DBL 102 at Anchorage Bravo. This plan was approved and all federal requirements, state requirements and permits were obtained with the USCG overseeing the operation on the barge. The owner was also required to have a marine chemist overseeing the operation to insure safe conditions. On Wednesday, the Tug McKinley Sea with the barge DBL 134 in tow left for Jamestown Anchorage to offload the DBL 102. On Thursday, the 20<sup>th</sup> the DBL 134 arrived and the transfer started at Anchorage Bravo under USCG supervision at 10:00 am. On Friday the 21<sup>st</sup>, lightering was completed at approximately 10:20 am. The marine chemist completed all monitoring during the vessel transfer and the barge was allowed to transit to NY for repairs. The marine chemist determined that the levels of gasoline vapors in the aft void were above the upper explosive limit (UEL), which prevented flammable atmosphere. At this time, approximately 304 barrels of gasoline migrated to the aft rake void. At about 5:00 pm, the Penn 4 and DBL 102 left USCG Sector Southeastern New England's area of responsibility and entered Sector Long Island Sound with their approval. The DBL 134 was offloaded safely at Exxon Mobil and the DBL 102 headed to NY Clean Water Facility to remove the gasoline from the void space and repair the barge. Fortunately, no gasoline was released to the environment during the entire incident. This was a very tenuous situation that was safely addressed due to the cooperation and due diligence of the owner, their marine chemist, Exxon Mobil, USCG and DEM.

## Fire at RI Yacht Club, 1 Ocean Avenue, Cranston

On May 11, 2014, DEM personnel received a call from the Cranston Fire Department requesting assistance at the RI Yacht Club for a fire involving six vessels. The fire began on one yacht and spread to five other vessels (4 power boats and 2 sail boats). It was estimated that approximately 1,200 gallons of fuel/oil were contained in the vessels. DEM personnel required RI Yacht Club to contact a cleanup firm to address the release of fuel. They called Clean Harbors who indicated it would take a couple of hours to get personnel and equipment to the site. RI Yacht Club was then requested by the OER to contact

nearby marinas to obtain oil cleanup material immediately. Brewers Marina had a small spill trailer that they were willing to tow to the site. In the meantime, DEM installed absorbent boom around two large culverts to prevent the fuel from discharging from the marina into the bay.

Approximately one hour later, the spill trailer arrived and a

small section of hard boom from the trailer was installed in front of the culverts as the tide was changing. Clean Harbors arrived a couple hours later and they installed approximately 400 feet of hard boom and deployed absorbent boom in areas where there was recoverable oil. USCG and DEM supervised the oil containment and recovery



operations. Clean Harbors then utilized a vacuum truck to skim fuel and waste oil collected in the boomed areas. A total of 5,828 gallons of oil/water were recovered during the cleanup operation and of that approximately 600 gallons of oil were removed from the water. The rest of the fuel was either burned during the fire, evaporated or lost to the environment. The RI State Fire Marshal and Attorney General's Office conducted the fire investigation to determine the origin of the fire. Due to the fast response and the well-equipped DEM trucks that contain absorbent boom most of the oil was

prevented from leaving Still House Cove and entering the bay via the culverts.

## Oil Response Training for Slow/Backwater 7/8-12/2013

During the week of July 14<sup>th</sup>, DEM participated in a five day Slow Water Boom Training course at DEM George Washington Management Area. On water activities were conducted on the Bowdish Reservoir. DEM personnel worked with EPA and their training contractor to arrange for the training location and provide the required equipment to conduct the class. This hands-on course demonstrated oil recovery methods in slow, backwater or marsh environments. Instructional methods included lectures, table top exercises and hands-on field work that emphasize the practical and problem solving skills required for oil spill control and clean-up. After completing the course, participants were required to:

1. Demonstrate the operation of a work boat
2. Obtain a Certificate of Boating Safety Education;
3. Demonstrate the proper use rope knots;
4. Demonstrate locating areas using longitude and latitude;
5. Demonstrate how to find an exact location using GPS;
6. Demonstrate proper anchor methods for booming;
7. Deploy boom properly for the collection of oil;
8. Demonstrate proper methods for shoreline protection;
9. Establish an oil recovery site and operate common oil recovery equipment;
10. Construct underflow dams, filter fences and weir dams;
11. Construct interceptor trenches and install French Drain and cut-off walls



Personnel from USCG, EPA, RI DEM, CT DEEP, MA DEP, Maine DEP and City of Providence attended the training. The course provided a great opportunity to work with our Federal and New England State counterparts and practice booming technics that may well be utilized during a large release that could potentially impact several of the coastal states simultaneously.

## **PORTS Program**

OSPAR continues to support the Narragansett Bay Physical Oceanographic Real-Time System (PORTS) that began operation in June 2000. PORTS, which is operated by the National Oceanic and Atmospheric Administration (NOAA), is comprised of twelve monitoring stations located in Narragansett Bay that monitor stage of the tide, currents, and weather. This data is reported every six minutes to a central receiving computer, which processes the information. Real-time information regarding tides, current and weather can be accessed by telephone at 401-849-8236 and 1-888-301-9983 or on the internet at, <http://tidesandcurrents.noaa.gov/ports/index.html?port=nb> . NOAA continuously monitors the in-water sensors and conducts data validation. This 24/7 quality control allows NOAA to guarantee the accuracy of the data. As a result, the state-licensed pilots who guide the largest vessels into port in Narragansett Bay are able to make decisions on vessel movements with real-time information. Over the last few years the host agencies for PORTS including RIDEM have formed a coalition to petition the Federal Government to include the maintenance of the PORTS system as part of the NOAA budget. NOAA has not taken over the maintenance expenditures but is still reviewing the possibility.

State-licensed pilots can directly access PORTS information while traversing Narragansett Bay using the Raven Portable Pilot Navigation System purchased with OSPAR funds. The Raven Portable Pilot Navigation Systems have wireless/Bluetooth capability that allows the acquisition of real-time data from PORTS as well as real-time weather information from the National Weather Service. The navigation systems are extremely sophisticated, utilizing a Differential Global Positioning System that accurately and safely determines the position of a vessel being piloted through the bay. The system uses the U.S. Department of Defense Global Positioning System and the Canadian Coast Guard network of differential radio beacons to provide accurate navigation information in conjunction with accurately surveyed maritime charts provided by the U.S. Army Corps of Engineers. It is the only commercially available portable piloting navigation system incorporating U.S. Army Corps of Engineer channel data on customized vector electronic charts with sub-meter positional accuracy necessary for precision navigation in RI waters. The goal of the program is to provide the greatest degree of safety possible for commercial ship traffic in Narragansett Bay and the Ports of Providence and Quonset.

## **Training Activities**

The Emergency Response team continued to improve its response capabilities through training. During FY2014 team members continued to build on the all hazard model. Members of the Emergency Response team participated in courses, training and exercises that included:

- 8-Hour Methamphetamine Laboratory Awareness Training
- 4-Hour HazMat table top exercise (TTX), Rail Car Accident, Burlington, MA
- 4-Hour Port of Providence Air Monitoring Drill
- 4-Hour National Traffic Incident Management Responder Course
- 8-Hour First Aid and CPR Training
- 4-Hour Air Monitoring Competency (RI Fire Academy)

1-Hour Chemical-terrorism Vulnerability Training  
8-Hour Level A Training Competency (RI Fire Academy)  
8-Hour Air Monitoring (RI Fire Academy)  
4-Hour First Defender RM - Chemical Identification System  
4-Hour Bio-Hazard Recovery Remediation & Bonded Recovery Antimicrobial Protection  
4-Hour Grounding & Bounding Training  
12-Hour Level A Competency (RI Fire Academy)  
8-Hour Evidence Collection (RI Fire Academy)  
16-Hours Biological Incidents Training, Louisiana State University  
12-Hour Large Scale Drill (Trinity Ex Drill), (RI Fire Academy)  
12-Hours Level A Competency (RI Fire Academy)  
8-Hour Multi-Rae Pro Training  
24-Hour Plymouth Haz/Mat Training, MA Fire Academy  
8-Hour Air Monitoring (RI Fire Academy)  
8-Hour HAZWOPER Refresher (RI Fire Academy)  
16-Disaster Management, Texas A & M Engineering Extension Services (TEEX)  
8-Hour Regional Response Team (RRT)  
24-Hour Mirion Technologies Radiation Training  
8-Hour Boat and Water Safety Course  
40-Hour Oil Response Training Slow/Back Water, US EPA

The DEM Emergency Response program also continued to provide training. The training provided included *Hazardous Materials & Criminal Investigation* for the State Police Training Academy, *WMD Hazardous Material Evidence Collection* with the Cranston Fire Department, Radiation Safety training with Local Hazardous Material Teams, *Homeowner Oil Spill Handling* for oil companies, *Chemical Safe Schools* for educators, *Hazardous Materials Recognition & Identification Refresher* for RI DOT, Traffic Incident Management Training for RI DOT, Smithfield Police Department, *Hazardous Materials Sampling* for the National Guard Civil Support Teams and *Environmental Health & Pesticide Safety Education* for the University of Rhode Island.

## **HABITAT RESTORATION PROGRAM**

In June 2002, the RI General Assembly enacted legislation (RIGL 46-23.1) that established a coastal and estuarine habitat restoration program administered by CRMC. Subsidy from the OSPAR fund continues to be transferred to CRMC in accordance with RIGL § 46-23.1-3. The financial support is for the Rhode Island Coastal and Estuarine Habitat Restoration Trust Fund. Habitat restoration projects are selected from recommendations by the RI Habitat Restoration Team established by CRMC, Save The Bay and the Narragansett Bay Estuary Program established in 1998. Each year the Trust Fund receives \$250,000 from the OSPAR account to fund habitat restoration projects in the state. Since the inception of the Trust Fund CRMC has awarded \$2.5 million for 96 projects, which has leveraged more than \$23 million in matching funds. In its eleven years, the Trust Fund has helped to restore over 300 acres of Rhode Island habitat, and this year's funding will leverage an additional \$629,000 in matching funds. The following short project descriptions are taken from the CRMC web site. Additional information can be found at <http://www.crmc.state.ri.us/>.

March 20, 2014, WAKEFIELD – The RI Coastal Resources Management Council awarded funding for nine habitat restoration projects through its RI Coastal and Estuarine Habitat Restoration Trust Fund. The Council approved the funding at the March 11 semi-monthly meeting in Providence. Projects approved for funding include four salt marsh restoration projects, three anadromous fish passage projects, one coastal upland restoration, and one equipment request for RI Department of Environmental Management (RI DEM).

**Fish Passage Improvements at the Manton Pond Dam Nature-Like Fishway Construction Project, Johnston**

**Award: \$56,401**

**Lead Organization: Woonasquatucket River Watershed Council**

The Council awarded \$56,401 to the Woonasquatucket River Watershed Council for the Manton Pond Dam Nature-Like Fishway Construction project in Johnston. This project will



construct a nature-like fishway at the dam to complete the group’s long-running project to restore diadromous fish passage at different points along the Woonasquatucket River. Once this final obstruction is removed, the river will offer spawning habitat in both the river and Manton Pond for 40,000 river herring. The fishway will allow migratory fish access to nine acres of pond habitat and open up nearly a mile of river. This is the second consecutive year of funding for the project.

**Factory Brook Fishway Construction Project, South Kingstown**

**Award: \$50,000**

**Lead Organization: RI DEM Division of Fish & Wildlife**

The Council also awarded \$50,000 to RI DEM Division of Fish & Wildlife for the Factory Brook Fishway Construction project in South Kingstown. DEM, along with the National Oceanic and Atmospheric Administration (NOAA) and US Fish and Wildlife Service, plans to construct a fish ladder at a privately-owned dam to restore river herring to Factory Book and Factory Pond. The goal of the project is to restore unimpeded upstream fish passage and create river connectivity, as well as to restore herring passage to the primary spawning and rearing habitat in the 30-acre Factory Pond.



**Pontiac Dam Fish Passage Feasibility Study, Warwick**  
**Award: \$50,000**  
**Lead Organization: Center for Ecosystem Restoration**

The goal of the project is to identify a number of preferred restoration alternatives for the three-mile stretch of the Pawtuxet River in Warwick near the Pontiac Dam that would lead



to long-term ecosystem improvements. These include restoring herring and other diadromous fish spawning habitat; improving ecological integrity, biodiversity and water quality in the Lower Pawtuxet River and Narragansett Bay; improving public safety and protecting property and infrastructure by reducing flooding frequency and risk; and improving climate change preparedness and resiliency on the Lower Pawtuxet River.

**Blackstone Park, Providence**  
**Award: \$22,777**  
**Lead Organization: Blackstone Parks Conservancy and Providence Department of Parks and Recreation**

The Council also approved \$22,777 in funds toward forest understory restoration in Blackstone Park in Providence. The Blackstone Parks Conservancy, along with Providence Department of Parks and Recreation, plans to put in native plant species in the upland to slow the loss of topsoil in the park from erosion caused by storms, overuse and stormwater runoff down the park’s steep hillsides. Work will include repairing trails by lining them with logs, adding gravel, installing water bars and brakes, coir matting and laying down wood chips on trails where appropriate. The Trust Fund monies, in addition to DEM and Department of Transportation funding, will allow for more volunteer time to work on the upland area.

**Statewide Salt Marsh Mapping, RI**  
**Award: \$20,000**  
**Lead Organization: Narragansett Bay National Estuarine Research Reserve**

The Narragansett Bay National Estuarine Research Reserve (NBNERR) was awarded \$20,000 toward Statewide Salt Marsh Mapping, which will build on prior efforts to gauge the health and resilience of Rhode Island’s coastal salt marshes. Evidence from the group’s monitoring suggests a rapid change in salt marsh vegetation in response to accelerating sea level rise, and broad-scale degradation of salt marsh has been captured

by recent RI Salt Marsh Assessment monitoring efforts conducted at 40 marshes in the state. NBNERR plans to classify high, low and transitional marshes and build a statewide map that will help to further identify trends in salt marsh vegetation change. This information will be used to target and prioritize areas for monitoring, restoration and adaptation practices.

**Excavator and Flail Mower Repairs, RI**

**Award:** \$5,000

**Lead Organization:** RI Department of Environmental Management, Division of Agriculture

The RI Department of Environmental Management received \$5,000 for excavator and flail mower repairs. This low ground pressure equipment is used statewide for mosquito abatement and control and wetland restoration.

**Jacob's Point Salt Marsh Restoration Project, Warren**

**Award:** \$5,000

**Lead Organization:** Warren Land Conservation Trust

The Warren Land Conservation Trust was awarded \$5,000 toward the Jacob's Point Salt Marsh restoration project. Jacob's Point, a 47-acre marsh along the Warren River in Warren, is the site of a successful previous Trust Fund funded project to restore tidal flow to a restricted portion of marsh and reduce coverage of the invasive reed, *Phragmites australis*. This year's funding will be used for additional adaptive management measures that will improve drainage in areas where water has become permanently impounded. The goal of the project is to reduce the areas of standing water, enhance native marsh vegetation and reduce potential mosquito breeding areas.

**RI BAYS, RIVERS and WATERSHEDS COORDINATION TEAM PROJECTS**

In 2007, the general assembly provided OSPAR funding to the Rhode Island Bays, Rivers and Watersheds Coordination Team (CT). It is a state interagency commission dedicated to the protection, management, restoration, and sustainable development of Rhode Island's fresh and marine water and watersheds. Through strategic coordination of government programs, the CT ensure the well being and sustainable use of Rhode Island's water and watersheds, increases the vitality of our marine economy and water intensive industrial sectors, and prepares Rhode Island for future environmental and socioeconomic imperatives. Additional information can be found at <http://www.dem.ri.gov/bayteam/index.htm>. Listed below are the Strategic Investments by the RI Bays, Rivers and Watersheds Coordination Team to Support a Comprehensive Water Monitoring Strategy for FY2014.

**Cooperative Agreement with United States Geological Survey**

As authorized by the RI Bays, Rivers and Watersheds Coordination Team (BRWCT), DEM continued its cooperative agreement with the United State Geological Survey (USGS) to maintain long-term monitoring programs that collect data on streamflow, groundwater

levels and water quality in the State's largest rivers. The 2014 OSPAR contribution was \$207,088 contractual and the other funding came from the USGS match. During FY14, pursuant to the combined joint funding agreement, the OSPAR Fund supported the following three monitoring activities.

Streamflow Measurements: USGS operated and maintained 21 streamflow gage stations that provided continuous measurements of streamflow elevations. The streamflow data is made available on a real-time basis via the USGS website. The data are used by multiple agencies for a number of programs including flood forecasting, drought management, water quality restoration, water management and permitting.

Groundwater Elevation Measurements: USGS collected monthly groundwater elevation readings from 9 observation wells located throughout RI. Five wells are equipped for continuous measurement. The data can have applicability to drought management, permitting and water management programs.

Large River Water Quality: USGS continued its monthly water quality sampling program for RI's three largest rivers. With one exception, five stations were sampled monthly on the Blackstone River and its tributary the Branch River, the Pawtuxet River and the Pawcatuck River for a range of water quality parameters including nutrients and pathogens. Due to rising costs, monthly sampling at the Pawcatuck Station was eliminated from the agreement for the months of November, January and February. Samples at all stations are also analyzed for metals quarterly. Data undergoes federal quality assurance procedures and then is made available via USGS information system – NWIS. Data is important for evaluating long-term trends and tracking pollutant loadings into the upper bay from the rivers. Data is used in various state water programs. Three stations are located near the mouths of the Blackstone, Pawtuxet and Pawcatuck Rivers in order to be representative of the pollutant loadings from these tributaries into coastal waters.

## **OUTLOOK AND PROJECTIONS**

OSPAR-related expenditures during FY2015 are expected to be similar to FY2014 absent any major spills and associated response needs. However, the office is looking to expand on the Geographic Response Plan (GRP) that was completed for the Upper Narragansett Bay / Providence River over the next few years. The next phase will include completing the GRP for the lower Narragansett Bay and the eastern coastal areas. As a result of all these initiatives, the functional capacity to respond will continue to be stressed by the continued reallocation of OSPAR funds. The constant fiscal pressure on the OSPAR fund will have a cumulative impact, compromising the ability of the program to perform the basic readiness and response tenants for which it was established.

## **CONTACT INFORMATION**

For further information regarding this report, the activities of the emergency response team or OSPAR, contact James Ball, RIDEM Emergency Response Administrator, Chief Office of Emergency Response at 401-222-4700 extension 7129 or at james.ball@dem.ri.gov.