

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

## **Annual Report FY 2017**



**Providence & Worcester Railroad Accident  
Providence 3/8/2017**

**RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

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## 1. 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 2017.

## 2. REVENUES & EXPENDITURES – FY2017

The OSPAR account started FY 2017 with a balance forward of \$4,008,690.00 and ended the fiscal year with a balance of \$3,343,238.00. During FY 2017, the \$0.05 per barrel fee resulted in the collection of \$1,834,264.00 after the ten percent cost recovery fees per RIGL 46-12.7-4.1(g). Personnel, operating and project expenditures for FY2017 totaled \$2,499,716. The OSPAR Fund balance has been on a downward trend since FY2014 and over the last few years the revenues have been less than the expenditures.

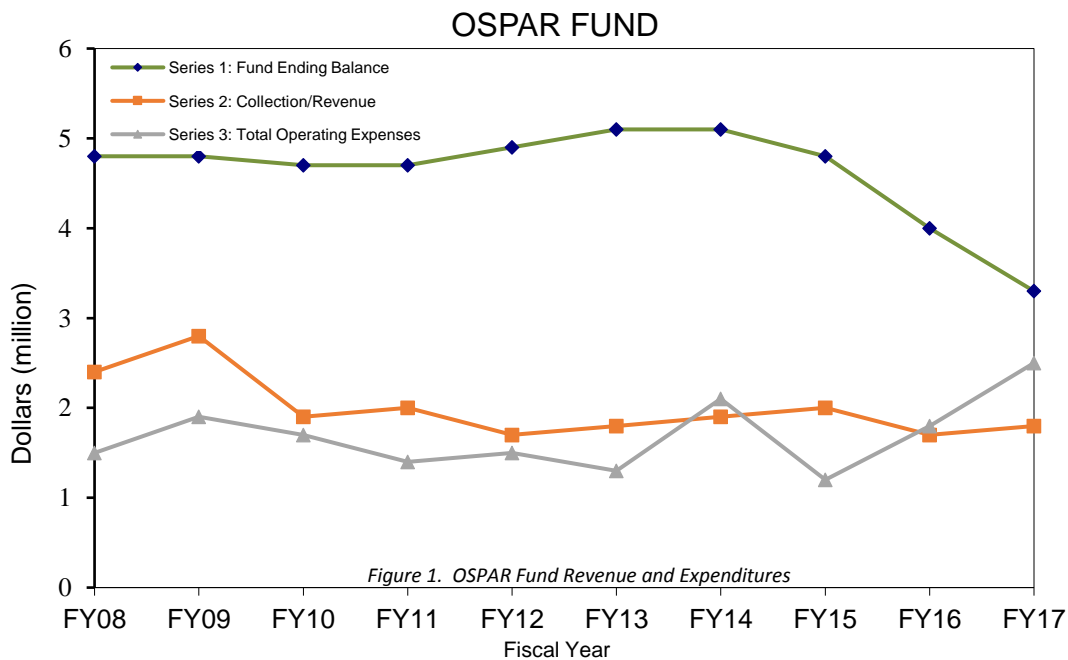


Figure 1 provides an overview of the approximate OSPAR Fund revenues and expenditure activities since FY2008.

## 2.1 EXPENDITURES

### 2.1.1 Personnel Cost

- 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.
- A Tier II Specialist to provide information on petroleum and chemical storage facilities regarding amounts, storage locations, site plans and emergency contact information.
- 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.

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#### **Personnel Cost**

**\$ 1,172,006**

### 2.1.2 Major Operating Expenses

Vehicle Purchases, Maintenance & Readiness	\$ 232,438
Building Maintenance	\$5,178
Cell phones, IT Support	\$ 48,165
Supplies: Office, Scientific, Miscellaneous Expenses	\$136,811

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#### **Major Operating Expenses**

**\$ 422,592**

### 2.1.3 Capital Projects

Narragansett Bay PORTS SYSTEM	\$ 250,000
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#### **Capital Projects**

**\$ 250,000**

### 2.1.4 Other Projects supported by the OSPAR Fund

Audubon Society – Narragansett Bay Estuarine Program	\$ 56,094
Coastal and Estuarine Habitat Restoration Trust Fund	\$157,913
Water Quality Monitoring Team	\$250,000
Port of Providence Marine Strike Team	\$191,111

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#### **Other Projects supported by the OSPAR Fund**

**\$ 655,118**

**2.1.5 Total OSPAR Expenditures** \$2,499,716

This is an approximate breakdown of the larger cost associated with the funding for FY2017

**3. RESPONSE ACTIVITIES – FY2017**

In FY2017 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 712 emergency response investigations undertaken by the Office during FY2017. While there is some annual variation in the number of emergency responses, the trend of the data has been demonstrating a slightly downward average. The incidents comprised two primary categories, hazardous material responses and oil spills.

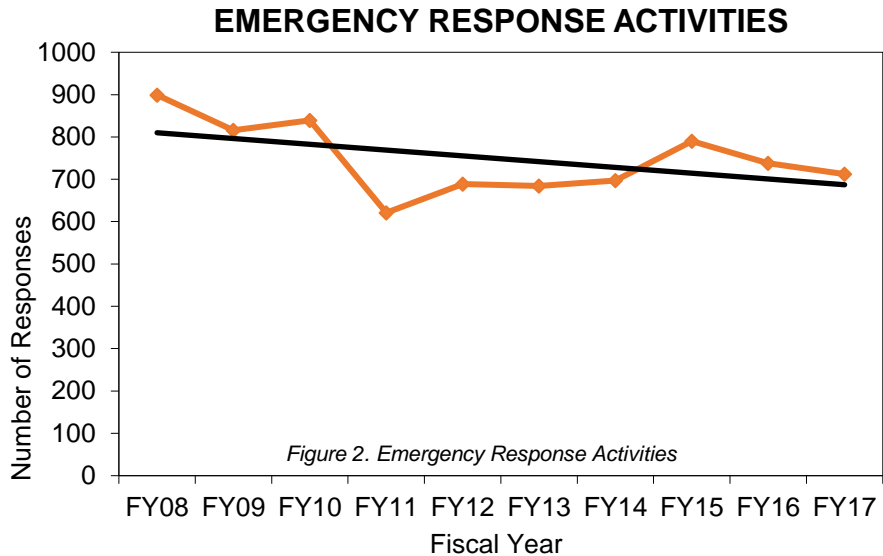


Figure 2, tracks the number of emergency response activities for a ten-year period.

**3.1 HAZARDOUS WASTE RESPONSE ACTIVITIES – FY2017**

During FY2017 22% of the response actions involved hazardous waste, totaling 154 responses. The amount of hazardous materials/waste remediated or removed from the environment during these response activities was estimated to be 32,766 gallons of hazardous materials/waste and 137 tons of hazardous materials/waste. 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. However, the bulk of the responses are for oil related issues.

### 3.2 OIL SPILL RESPONSE ACTIVITIES

The DEM emergency response team responded to 558 (78%) oil spills during FY2017. The amount of oil products and oil spill debris remediated or removed from the environment during these response activities was estimated to be 61,085 gallons of oil and 3,546.2 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.

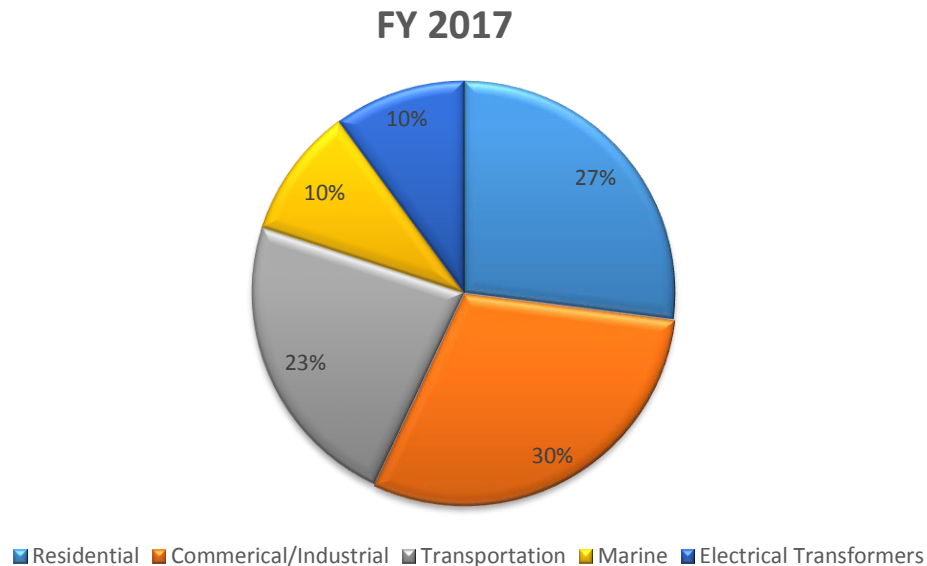


Figure 3. FY2017 Oil Spills by Category

The greatest percentage of spills, 30 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. Transportation related spills accounted for 23 percent of the spill events in FY2017. Spills from electrical transformers comprised 10 percent of the spill events. 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 10 percent of response activities. DEM and USCG have been conducting workshops in the Port of



Galilee to educate commercial fishermen regarding the State and Federal requirements for the proper containment and disposal of oily waste they generate. These workshops will hopefully be fruitful in reducing the number of oil spill responses in the Port of Galilee. The category and percentage of spills has remained relatively constant over the last few years with some fluctuation in the different spill types.

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

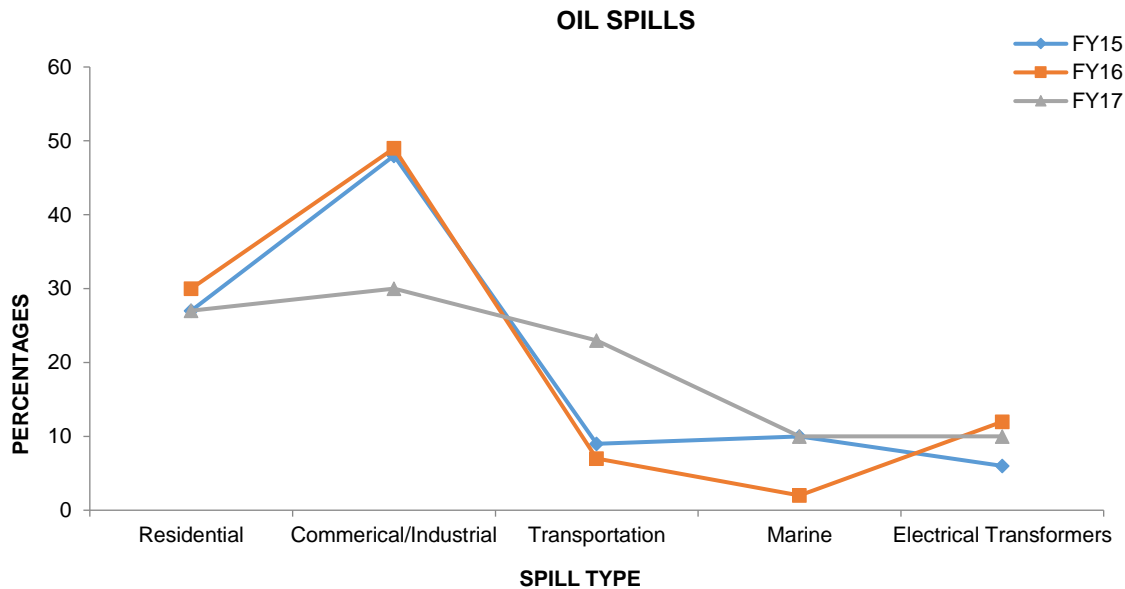


Figure 4. Comparisons of Oil Spills FY2015, FY2016 and FY2017

#### 4. FY2017 OER Incidents

##### 4.1 Providence & Worcester Train Car Derailment 3/8/2017

On Thursday the 8<sup>th</sup> of March, the Providence Fire Department reported that an eighty-car unit train carrying ethanol derailed on Allens Avenue in Providence. The rear couple of railcars were accidentally pushed off the tracks through the bumper and onto Allens Avenue. The engineer did not realize that the cars were at the end of the track until the breaks sheared off stopping the train. The railcar was initially reported to DEM as leaking ethanol. Upon inspection of the rail car it was determined that rainwater was dripping and not ethanol. Representatives from Genesee & Wyoming Railroad (G&W), the parent company, arrived to assess the damage. They were contacted to provide expertise and assistance



with relocating the railcar back on the track. The first step was to detach the compromised railcar located in the street from the rest of the unit train to ensure that other railcars were not damaged. The end railcar was listing at a 15-degree angle since it was off the track and its wheels. The rear wheels were damaged and wedged underneath the midpoint of the railcar. The railcar was sitting on gravel, a cement barrier and the broken bumper block that was pushed out into the street. G&W hired Clean Harbors to empty the 30,000 gallons of ethanol out of the railcar into tanker trucks. The trucks were then driven to the Shell (formerly Motiva) facility to be offloaded into their ethanol aboveground storage tanks. When they completed the operation, the railcar was rinsed and vacuumed out to keep the vapors to a minimum since the car would have to remain in the street overnight. The following morning G&W utilized a railcar engine to drag the lone railcar off the street and back to the rails. They then successfully lifted the railcar with a crane to put the car on wheels and back on the track. It was a great group effort by Providence Fire, G&W, Shell, USCG and DEM Office of Emergency Response to avoid the loss of 30,000 gallons of ethanol.

## 4.2 Providence Natural Gas Pipeline Rupture

On March 29, 2017, DEM personnel received a call from the Providence Fire Department requesting assistance for a high-pressure natural gas pipeline release on Allens Avenue. Providence Fire needed DEM to deploy AreaRaes and other air monitoring instruments



Courtesy of the ecoRI news.

within the port area for the safety of the responders and the public. The police and fire personnel closed Interstate 195 in the Providence area since the leak was directly below the interstate. The rising gas vapors were encompassing the highway, making the road too dangerous to travel. DEM personnel set up monitors and a host computer system to obtain readings of the surrounding area. The meters identify levels of volatile organic compounds, oxygen levels, lower explosive limit (LEL), carbon monoxide and hydrogen

sulfide. At the time of the incident, the wind was blowing out of the north and pushing the gas cloud over the bay. Monitors were set up downwind on Allens Avenue, at the terminus of Public Street, off Allens Avenue, and along the water edge at ProvPort off Terminal Road. The devices were monitored via a host computer at the Command Post





located north and upwind of the release. The air monitoring continued until National Grid was able to cease the gas release, around 10:45 pm, about 2 hours after the incident started. Once the gas release was stopped I-195 was monitored to ensure no gas levels were detected in and around the area. When no odors of mercaptan and no readings were detected on the meters, I-195 was reopened. National Grid then entered the area of the pipeline release to make the necessary repairs. Allens Avenue stayed closed until the final repairs were completed later that night. DEM then oversaw the cleanup of gas condensate that was expelled from the high-pressure pipeline and contaminated the soil proximate the release. The condensate contains oil and other materials that required soil remediation. Several tons of contaminated soil were excavated to meet the state clean-up standards and then disposed of properly.

### 4.3 Rhode Island Airport Corporation, North Star Aviation Fuel Truck Rollover

On April 16, 2017, RI DEM was notified of a major spill at the airport involving an overturned North Star Aviation fuel truck. North Star Aviation is the contractor at the T. F. Green Airport that

provides on-site fuel for all planes. The truck was carrying 7,500 gallons of Jet A fuel and was leaking at the time of the responder's arrival. The truck overturned around a curve in the taxi way, when the load shifted, causing the truck to flip onto the passenger side of the vehicle. The tank split open and was leaking at an approximate rate of 50 gallons per minute. Due to the location of the tear in the tank there was no

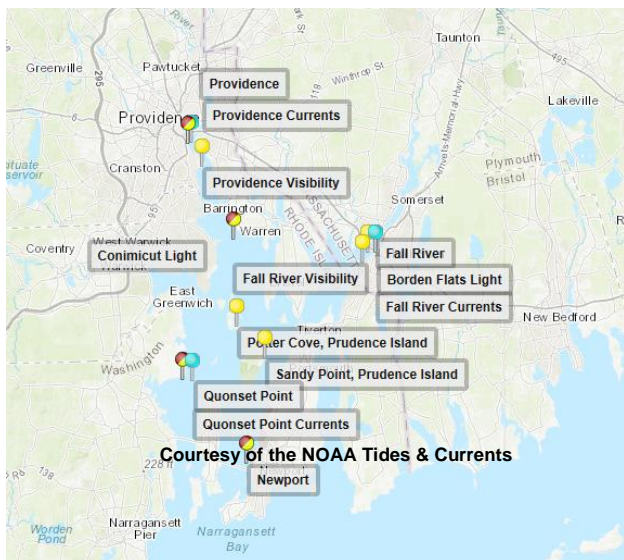


way to stop the flow of fuel. The spill was contained to the taxi way by sealing off storms drains and allowing the jet fuel to pool in a low area. The pool of jet fuel was covered with a blanket of aqueous film forming foam (AFFF) that was maintained for the duration of the cleanup. North Star Aviation hired a contractor to respond with a vacuum truck. The truck was used to pump up the spilled jet fuel and AFFF covering the release. The responders also applied speedy dry to soak up the residual jet fuel around the fuel truck. The remainder of the jet fuel in the truck was pumped out with another vacuum truck so that the contents could be transferred to another North Star fuel truck. They recovered 2,400 gallons of untainted product from the fuel truck that was used for its intended purpose. They also recovered approximately 4,100 gallons of jet fuel, water and foam from the taxi way that was transported off site for proper disposal. The area was then covered with speedy dry and a tow truck righted the vehicle and removed it from the site. The contaminated speedy dry that was removed generated approximately 5 cubic yards of waste. Two weeks after the incident the on-site oil/water separator was pumped out and they recovered an additional 500 gallons of fuel. The release resulted in a couple of gates

being shut down, but the airport stayed open, without any further incident, until the operation was completed.

## 5. 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 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.

## 6. TRAINING ACTIVITIES

The Emergency Response team continued to improve its response capabilities through training. During FY2017 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 Emergency Support Function (ESF) Training
- 16-Hours EMA Be Ready RI Conference
- 8-Hour Air Monitoring
- 8-Hour Sampling Class
- 8-Hour DEM Leadership Training
- 6-Hour Ethanol Safety Seminar
- 8-Hour HAZWOPER Refresher
- 8-Hour Responding to Flammable Liquids Transported by Rail
- 4-Hour Lean 101
- 8-Hour Full Scale Exercise Terminal Dose
- 7-Hour Lean Training
- 24-Hour Massachusetts Association of Hazardous Material Technicians Conference
- 16-Hour HazMatIQ Tactics: Propane Training
- 8-Hour HazMat IQ Above/Below the Line
- 4-Hour Industry Training RI Nuclear Science Center
- 4-Hour Industry Training Boston Scientific
- 4-Hour Industry Training Lawton Valley Water Plant
- 16-Hours Ammonia Training
- 4-Hour Traffic Incident Management (TIM)
- 28-Hour Integrated Emergency Management
- 4-Hour Industry Training Rhode Technology

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, cities/towns, *Cardiopulmonary Resuscitation (CPR) Training*, *Hazardous Materials Sampling* for the National Guard Civil Support Teams, Northeast Environmental Enforcement Project (NEEP) training and *Environmental Health & Pesticide Safety Education* for the University of Rhode Island.

## 7. 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. Funding from the OSPAR Account 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 (CEHRTF). 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.

In general, proposals are evaluated based on the habitat type being targeted, the extent to which the project seeks to restore an area that has been degraded by human impacts, whether the project has been identified as a priority through any statewide or regional planning efforts, the potential community benefits, and the capacity of the lead entity to



*Northern portion of the East End social trail, filling in naturally with American beachgrass (*Ammophila breviligulata*), the trail received additional plantings of bayberry (*Morella caroliniensis*) and seaside goldenrod (*Solidago sempervirens*).*

carry out, maintain and monitor the project. In recent years, criteria have been added that incorporate climate change and sea level rise considerations into the scoring.

Each year, up to \$250,000 is authorized from the OSPAR account to fund habitat restoration projects in the state. Since the inception of the Trust Fund CRMC has awarded \$3.25 million for 121 projects, which has leveraged more than \$23 million in matching funds. In its 14 years, the Trust Fund has helped to restore over 300 acres of Rhode Island habitat. The following short project descriptions are taken from the CRMC web site.

Additional information can be found at <http://www.crmc.state.ri.us/>.

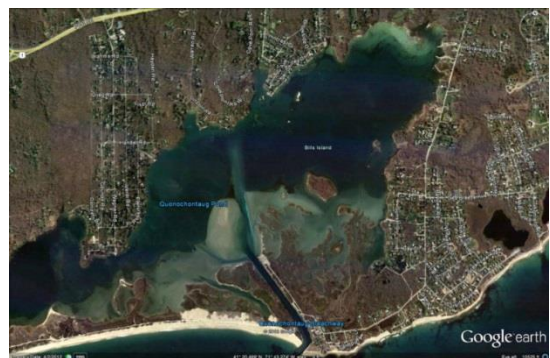
The Council approved the funding at the March 26, 2018 semi-monthly meeting in Providence. They awarded funding for nine habitat restoration projects in the 14th round of its RI Coastal and Estuarine Habitat Restoration Trust Fund (CEHRTF). The CRMC was able to fully fund all the proposals it received, including salt marsh restoration and elevation enhancement in Quonochontaug Pond, and enhancement projects, fish passage restoration, and ground-truthing sea level rise impacts through the MyCoast app.

## 7.1 Quonochontaug Pond Salt Marsh Restoration, Charlestown

**Award:** \$92,295

**Lead Organization:** Costal Resource Management Council (CRMC)

CRMC and its partners (National Oceanic and Atmospheric Administration [NOAA], Town of Charlestown, and Save The Bay) was awarded \$92,295 for salt marsh restoration and enhancement in Quonochontaug Pond in Charlestown. This project includes restoring approximately 30 acres of salt marsh and eelgrass habitat. The back-barrier marshes in the Salt Ponds Region exhibit signs of poor condition associated with sea level rise. The proposed project will raise the elevation of the Quonochontaug marsh using material dredged from the pond. Some of the dredged areas will be designed with depths suitable for eelgrass



with the goal of increasing the amount of eelgrass in the pond. The project will be similar to the successfully completed restoration and enhancement project within Ninigret Pond.

**7.2 Saugatucket River Fish Passage Improvement, South Kingstown**  
**Award: \$50,000**  
**Lead Organization: Town of Tiverton Conservation Commission**

The Nature Conservancy was awarded \$50,000 for fish passage improvement on the Saugatucket River. The project will improve diadromous (migratory) fish access to 300 acres of spawning and rearing habitat in the river. The goal of the project is to increase the size of the sustainable diadromous fish population and the supply of forage species to recreational and commercial fish in the coastal stream, Point Judith Pond, and Block Island Sound.



Photo Courtesy of Google

**7.3 Diamondback Terrapin Nesting Habitat Restoration, East Greenwich**  
**Award: \$21,405**  
**Lead Organization: University of Rhode Island (URI)**



A total of \$21,405 was awarded to the University of Rhode Island and its partners for the restoration of diamondback terrapin nesting habitat on the Potowomut River in East Greenwich. URI and Rocky Hill School will develop long-term resilience strategies for the terrapins and native salt marsh habitat, and will plant native *Spartina alterniflora*, a critical salt marsh foundation species.

**7.4 Shady Lea Dam Removal, North Kingstown**  
**Award: \$15,000**  
**Lead Organization: Save the Bay**

Save The Bay received \$15,000 in Trust Fund monies for the removal of the Shady Lea Dam in North Kingstown. This project, which received Trust Fund awards in 2011, 2013, and 2015, will restore two acres of riverfront area and a half-mile of stream corridor of the Mattatuxet River up to Silver Spring Lake Dam. Shady Lea was upgraded from significant to high hazard after the 2010 floods. The project, which will be undertaken by Save The Bay, RI Department of Environmental Management, NOAA, and the US Fish and Wildlife Service,





will preserve historic elements of the fish ladder and hydro turbine. The design includes a small stone weir structures below the dam to ensure fish passage during low flow.

### 7.5 Tunipus Pond Marsh Restoration, Little Compton

**Award:** \$13,000

**Lead Organization:** Town of Tiverton Conservation Commission

The Friends of Tunipus Pond and project partners Little Compton Agricultural Conservancy Trust, The Nature Conservancy (RI), Sakonnet Preservation Association, and the Town of Little Compton Beach Commission received \$13,000 for the restoration of Tunipus Pond marsh. Similar, successful projects have occurred at other coastal ponds in Little Compton, including Round Pond, Briggs Marsh, Long Pond and both the southern and northern ends of Quicksand Pond. The partners will restore the marsh and its native plant habitat through removal of the invasive *Phragmites Australis* and monitoring, as well as planting of native plant species.



### 7.6 MyCoast Tools for Coastal Resiliency

**Award:** \$10,000

**Lead Organization:** Coastal Resource Management Council



The Trust Fund also awarded \$10,000 to the CRMC for analysis and coastal resilience using MyCoast tools. This project will assess sea level rise impacts on the natural and built environment using photographs submitted by citizen scientists with MyCoast, a web site and smartphone app that allows the public to submit real-time tidal and weather data. This will be used to ground truth STORMTOOLS flood modeling, a product of the CRMC's RI Shoreline Change (Beach) Special Area Management Plan (SAMP). It will also include a component for training

citizens on using the coastal resilience tool of MyCoast for documenting marsh conditions and migration.

### 7.7 Mini-Excavator for Salt Marsh Restoration

**Award:** \$10,000

**Lead Organization:** Department of Environmental Management

DEM's Mosquito Abatement Coordination Office received \$10,000 in Trust Fund monies for the purchase of a mini-excavator for use in salt marsh restoration work. DEM uses two low-ground pressure excavators for numerous salt marsh management and restoration projects, but both are regularly damaged



Low Ground Pressure Excavator, Mower, and Dumper for Saltmarsh water management projects.

DEM Div. of Agriculture Mosquito Abatement Coordination

from salt and sand. This new machine will be available for 2019 projects, according to DEM, and will be modified with wide pads, which minimize damage to vegetation when it is used in salt marshes.

### **7.8 Goosewing Beach Salt Marsh Restoration, Little Compton**

**Award: \$8,500**

**Lead Organization: Nature Conservancy**

The Council awarded TNC \$8,500 for salt marsh restoration at Goosewing Beach in Little Compton. The project includes restoration of the salt marsh within the coastal lagoon: the entire shoreline of Quicksand Pond, where it joins with the barrier beach and dune community (Goosewing Beach Preserve). A total of 16 acres extending over 4,000 feet of shoreline at Quicksand Pond will be restored through the elimination of invasive Phragmites and enhancement and protection of native plant communities. The project will build upon work funded by the Trust Fund awards in 2011 and 2015.



### **7.9 Taylor Point Restoration, Jamestown**

**Award: \$4,800**

**Lead Organization: Taylor Point Restoration Association**

Taylor Point Restoration Association and the Town of Jamestown received \$4,800 to continue their work on the restoration of Taylor Point through elimination of invasive plant species, and enhancement of native plant communities. It involved restoring the point by eliminating the invasive plant species and re-vegetate with native ones; to protect existing native species; to improve degraded footpaths to provide safe public shoreline access; and maintain existing views of Narragansett Bay. The long-term goal of the project is the establishment of an ecologically robust coastal area and native buffer zone, which will serve as a valuable aesthetic and recreational resource. The funding will also go toward creating base maps and collecting biological data to add to the restoration planning process.

## **8. WATER QUALITY MONITORING (FORMERLY THE 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. Effective July 1, 2015, amendments to Rhode Island General Law (RIGL) 46-12.7-13 authorized RIDEM to direct the preventative use



of up to \$250,000 in OSPAR funding annually for environmental monitoring purposes. The amendment was adopted in conjunction with the repeal of RIGL 46-31 which abolished the Rhode Island Bays, River and Watersheds Coordination Team that had previously been authorized to expend the funds.

Listed below are the Strategic Investments by the Water Quality Monitoring Team (RI Bays, Rivers and Watersheds Coordination Team) to Support a Comprehensive Water Monitoring Strategy for FY2017.

## **8.1 Cooperative Agreement with United States Geological Survey**

As authorized by the Water Quality Monitoring Team (WQMT), 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 2017 OSPAR contribution was \$250,000 contractual and the other funding came from the USGS match. Funding from the RI Water Resources Board also contributed to the jointly negotiated program of activities. During FY17, pursuant to the combined joint funding agreement, the OSPAR Fund supported the following three monitoring programs.

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 several 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 since they are representative of the pollutant loadings from these tributaries into coastal waters.

## **9. OUTLOOK AND PROJECTIONS**

OSPAR-related expenditures during FY2018 are expected to be similar to FY2017 absent any major spills and associated response needs. Fiscal year 2017 showed expenditures

continued to be higher than the revenue brought in by the fund. This is a concerning trend that will have major impact on the fund balance over future fiscal years. As a result of all the initiatives, the functional capacity to respond will continue to be stressed by the unrelenting 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.

## **10. 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](mailto:james.ball@dem.ri.gov).