Oil Spill Prevention, Administration and Response (OSPAR) Fund

Annual Report
FY 2015

The Karen Jean Tug
Sank October 22, 2014

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Janet Coit, Director

James Ball, Emergency Response Administrator,
Chief Office of Emergency Response

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 2015.

Revenues & Expenditures – FY2015

The OSPAR account started FY 2015 with a balance forward of $4,800,566. During FY 2015, the $0.05 per barrel fee resulted in the collection of $1,956,386 after the ten percent cost recovery fees per RIGL 46-12.7-4.1(g), $209,984 was transferred to CRMC for the Coastal & Estuarine Habitat Restoration Fund. Personnel, operating and project expenditures for FY2015 totaled $1,793,240 that included $250,000 for PORTS Navigational System for Narragansett Bay as well as $207,088 for the River, Bays and Watersheds Coordination Teams. A detailed review of expenditures is provided in the expenditure section of the report.

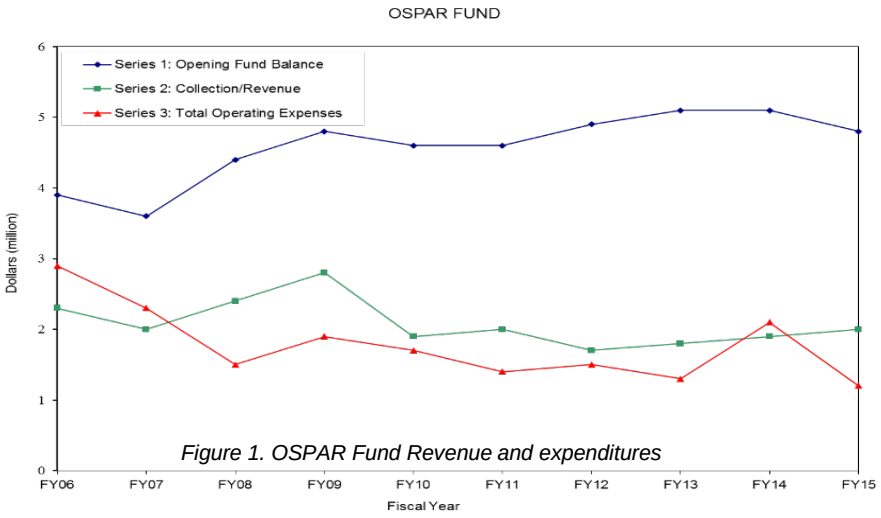

Figure 1. OSPAR Fund Revenue and expenditures

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

ACTIVITIES– FY2015

Summary

With regard to pre-spill preparedness, the OSPAR Fund was used in FY2015 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; Tier II Specialist, DEM GIS Supervisor (partial); staff from DEM Office of Waste Management. These salary and benefit costs totaled $1,209,871. Major operating expenses charged to the OSPAR Fund included: vehicle readiness and maintenance ($146,983); emergency response equipment, cleanup *services*, maintenance and supplies ($35,687); computer hardware, software, telecommunications and miscellaneous ($63,604), Ports Real-Time Navigation System (250,000), Audubon Society Narragansett Bay National Estuarine Research Reserve Coastal Training Program ($85,327) and Dawley Park building utilities ($1,768).

In FY2015 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 790 emergency response investigations undertaken by the Office during FY2015. The incidents comprised two primary categories, hazardous material responses and oil spills. Eighty-four percent of these responses, a total of 661 incidents, were related to oil spills.

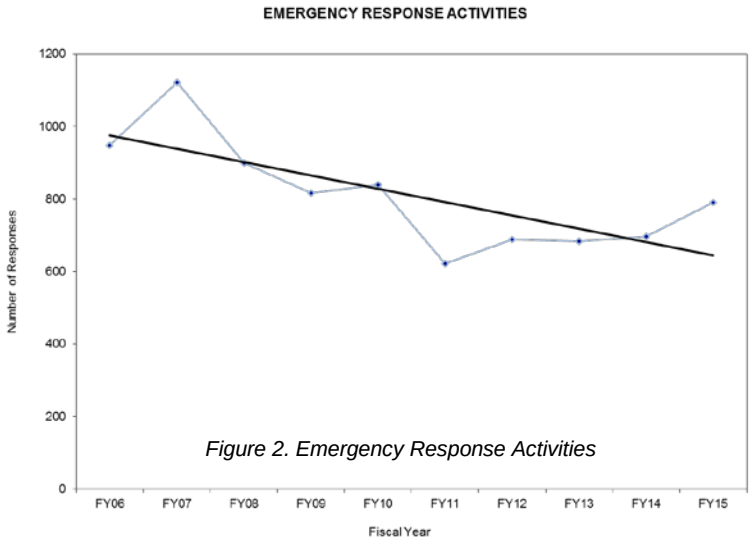

Figure 2. Emergency Response Activities

Figure 2, 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.

Seaweed* removal from a few area beaches was not conducted this year for the second time since 2003. 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. There was also the installation of the stormwater storage tunnels by the Narragansett Bay Commission that reduced the level of bacteria in the bay and may contribute to decreases in nutrient levels. These improvements have led to fewer

beach closures and the reopening of areas that have been closed for decades. It may also be linked to the reduction of 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 grows 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_2S), 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_2S gas. These episodic H_2S 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_2S 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.

FY2015 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.
- 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.

An approximate breakdown of the larger cost, not previously mentioned include:

Personnel Costs	
Partial salaries and benefits for personnel from DEM Office of Waste Management.	
	$ 1,209,871
Major Operating Expenses	
Vehicle Purchases, Maintenance & Readiness	$ 176,639
Cell phones, IT Support	$ 54,034
Supplies: Office, Scientific, Miscellaneous	$11,338
	$ 242,011
Capital Projects	
Narragansett Bay PORTS SYSTEM	$ 250,000
	$ 250,000
Other Projects supported by the OSPAR Fund	
Audubon Society – Narragansett Bay Estuarine Program	$ 85,327
	$ 85,327
Total OSPAR Expenditures	**$1,793,240**

OIL SPILL CLEAN-UP ACTIVITIES

The DEM emergency response team responded to 661 oil spills during FY2015. The amount of oil products and oil spill debris remediated or removed from the environment during these response activities was estimated to be 133,817 gallons of oil and 4,214 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.

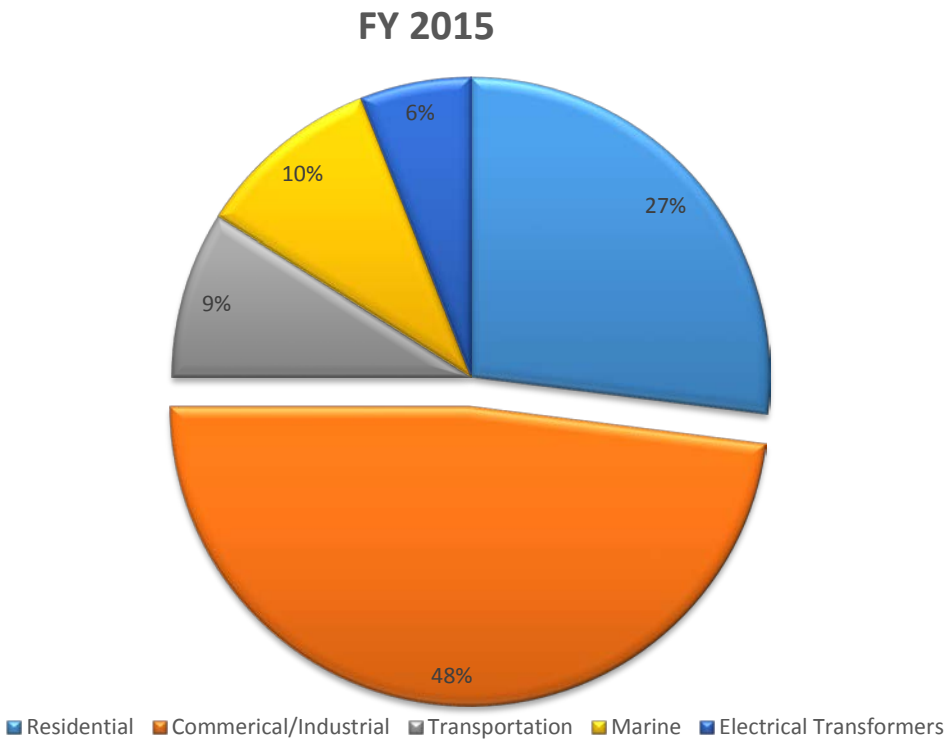

Figure 3. FY2015 Oil Spills by Category

The greatest percentage of spills, 48 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. Oil spills in Narragansett Bay and other marine areas comprised 10 percent of response activities. Transportation related spills accounted for 9 percent of the spill events in FY2015. Spills from electrical transformers comprised 6 percent of the spill events. Personnel from the OER met 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. 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.

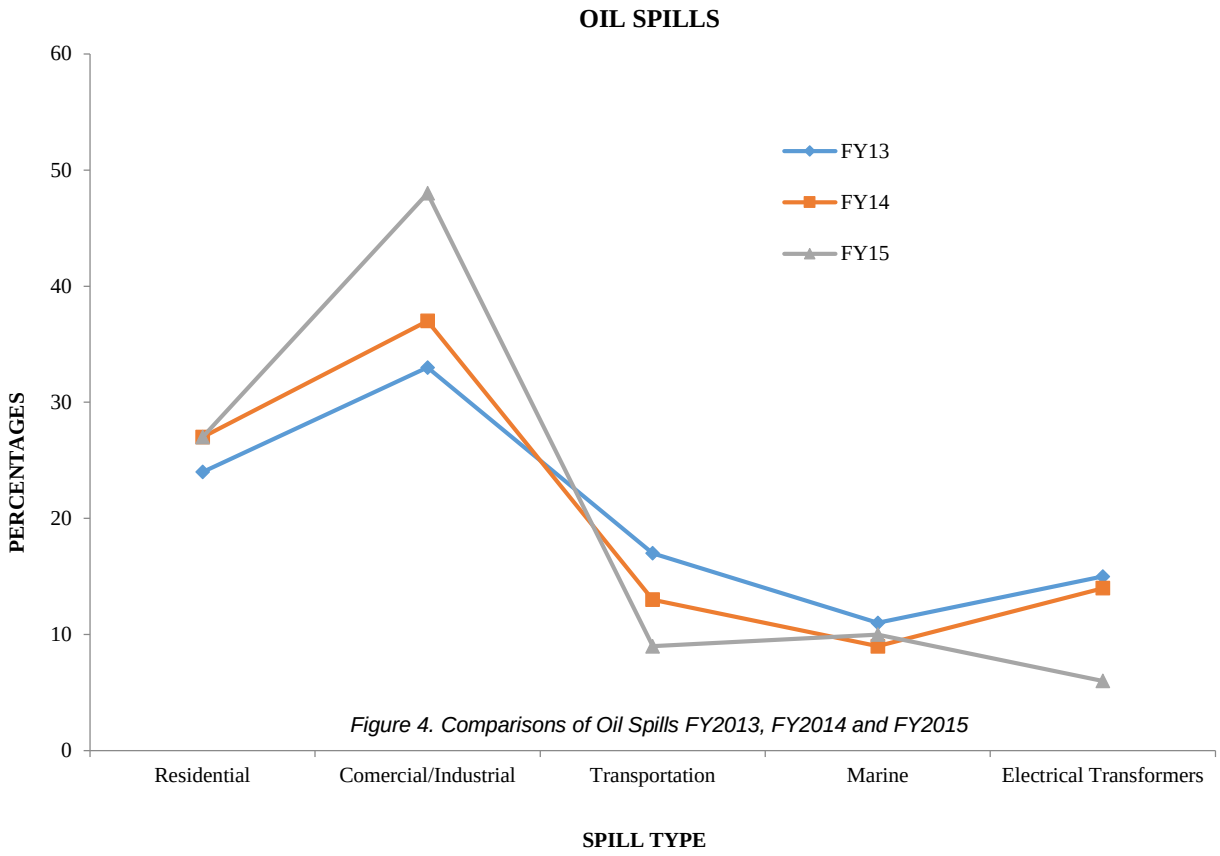

Figure 4. Comparisons of Oil Spills FY2013, FY2014 and FY2015

FY2015 OER Incidents and Drills

Tug Karen Jean and Barge Emergency 10/22/2014

On Wednesday the 22nd of October, the Tug Karen Jean was towing a 110' x 50' work barge that fortunately contained no hazardous materials. The 55 foot 67 gross-ton tug was transiting from South Carolina to Boston during a nor'easter with 35 knot sustained winds and gusts up to 60 knots. The seas were 8-10 feet when the tug started taking on water, began listing and then sunk. The barge ended up breaking free of the tug and was subsequently towed to port. The tug contained approximately 4000 gallons of diesel and 40 gallons of hydraulic oil. It sank approximately 1.5 miles off of Scarborough Beach in about 100 feet of water immediately adjacent to the western boundary of the outbound lane of the Narragansett Bay traffic separation zone. The tug ended up on the bottom upside down with the bow tilted up supported by the wheelhouse.

The depth of the water over the sunken and inverted Karen Jean was approximately 45 feet at low tide. Northeast Diving Services developed a dive plan for the removal of fuel from the vessel that was approved by the USCG and RI DEM. Upon completion of the fuel removal operation no fuel was recovered. It appears that the fuel had already leaked out of the tanks prior to the removal operation. Based on the USCG analysis they reported that the Karen Jean would not pose a hazard to navigation at the location; due to the depth of the vessel and the fact that it was charted by the National Oceanic Atmospheric Administration.

On Thursday December 4th at a Rhode Island Port Safety & Security Forum, a stakeholders meeting was held to obtain input from different agencies (DEM, USCG, Coastal Resource Management Council (CRMC), Save The Bay, Army Corp of Engineers and others) regarding sanctioning of the vessel to remain in place. After everyone provided input, although we all would have liked to see the vessel removed, it was determined that the vessel would be left in place due the expense of removing it. The responsible party could not afford to pay for the removal of the tug and there was not grant funding available to pay for this operation.

Fire on the Windermere, 1 Nautical mile outside of Point Judith

On November 14, 2014, DEM personnel received a call from the USCG regarding the 65 foot pleasure craft called Windermere. The vessel was on fire and located just outside of Point Judith. The USCG personnel rescued two people that were on the burning vessel. The Windermere contained 2,200 gallons of diesel and there was concern that it could impact the Harbor of Refuge. It was too dangerous to put anyone on the vessel that night to ensure that the fire was out due to the strong winds, 5 foot seas and darkness. USCG personnel in a buoy tender monitored the craft overnight in case the vessel lost anchor to safely tow it to a pier. The National Oceanic Atmospheric Administration (NOAA) was contacted to complete an oil spill trajectory that would identify the migration path of the oil and determine the area of impact. They also conducted an oil fate analysis to determine

the effect of the oil on aquatic organisms. The following day the USCG and Narragansett Fire Department conducted an on board fire inspection. They then conducted an overhaul of the vessel to ensure the fire was out and that the vessel was in good condition. Once it was determined that the vessel was safe to tow and there were no external structure issues it was taken for repairs to Barrington, the vessel's home port. The response was completed without any loss of oil; however, we planned for the worst and were prepared to respond to a release of fuel.

Inland Fuel Table Top Exercise May 8, 2015

On May 8th RI DEM participated in a table top exercise (TTX) with United States Coast Guard (USCG), Massachusetts Department of Environmental Protection (MA DEP), Rhode Island Department of Environmental Management (RI DEM), National Oceanic Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), Inland Fuels, local police, local fire, Moran Environmental and Clean Harbors as part of a RI/Southeastern MA Area Committee Meeting. The TTX involved two 350 foot barges offloading 3,360,000 gallons of #2 heating oil and 3,000,000 gallons of diesel simultaneously at the Inland Fuel Terminal at 0900. The facility is located in Tiverton, RI. During the offload operations, the transfer pipes on the pier burst and discharged approximately 7,000 gallons of #2 heating oil and 70,000 gallons of diesel fuel in Mount Hope Bay. The maximum potential discharge was 237,888 gallons of petroleum. The terminal manager was the qualified individual (QI) and he made all the notifications per the facility response plan (FRP). The notifications included the USCG, MA DEP, RI DEM, local fire and the Oil Spill Response Organization (OSRO). On-site personnel from Inland Fuel installed 1,000 feet of boom that they store on-site and Moran Environmental, their contractor, brought 1,000 feet of boom 1 hour later. They also had skimmers and vacuum truck en route from Moran that arrived 1 hour after the boom. RI DEM provided insight as to steps that we take for this type incident.

1. Notifications
2. Contain spill
3. Obtain a sample of the source of the spill for legal purposes
4. Complete reconnaissance assessments
5. Shut the hurricane barrier
6. Institute Geographic Response Plan (GRP) on a priority bases (Booming Strategies)
7. Utilize the Environmental Sensitivity Index to protect sensitive environments and species.

8. Complete shoreline cleanup assessment techniques (SCAT) assessments to prioritize areas needing cleanup
9. Conduct on-water recovery with skimmers and shoreline recovery
10. Establish wildlife threat & cleaning operations
11. Develop volunteer training program [Save the Bay, Serve RI, 211 and RIVOAD (volunteer organizations active in disaster)]
12. Utilize volunteers to cleanup up litter in un-oiled areas
13. Ensure security zones are established
14. Work with USCG and DEM Enforcement on port closure
15. Utilize RI Decontamination Teams to decontaminate personnel
16. Employ EPA and Hazardous Material Response Teams to conduct air monitoring
17. Obtain assistance from RI DOH for human health issues
18. Work with RI DEM on potential fish and shellfish closures
19. Establish a Joint Information Center (JIC)
20. Conduct water and sediment sampling
21. Notify the URI Coastal Institute to activate Scientific Support for Environmental Emergency Response (SSEER) for State colleges and university assistance
22. Establish Natural Resource Damage Assessment group (NRDA)
23. Contact Sewer authorities to protect their outfalls
24. Notify facilities with water intakes

This TTX was a fantastic opportunity to improve coordination between MA DEP and RI DEM on a singular release from a RI facility that impacted both states. It also allowed us to work with our federal counterparts to address the issues associated with a large oil spill.

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 five 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 FY2015 team members continued to build on the all hazard model. Members of the Emergency Response team participated in courses, training and exercises that included:

16-Hour Air Monitoring Class, Tetrotech
24-Hour Tier II Conference (NASTTPO)
2-Hour State Staging Area Training, North Central Airport
1-Hour Facilitated Discussion Inland Fuel Terminal
16-Hour Chemistry Training
8-Hour Safety Train Training, General American Transportation Cooperation (GATX)
8-Hour Radiation Training
8-Hour Advanced Critical Infrastructure Protection, Texas A&M Engineering Extension (TEEX)
4-Hour Essentials of Community Cyber Security, TEEX
8-Hour Tank Truck Rollover Response
8-Hour Area Maritime Security Training and Exercise Program (AMSTEP) TTX
2 Days Regional Response Team (RRT) Training
4-Hour NE Regional Catastrophic Preparedness Initiative Regional Functional Exercise
8-Hour Critical Infrastructure Key Resources CIKR Awareness, TEEX
6-Hour Oil Liability Trust Fund Training, USCG
8-Hour George Mann TTX, EPA
2-Hour Respirator Fit Testing
8-Hour Personal Protective Measures for Biological Events, TEEX
8-Hour Motiva Oil Spill Table Top Exercise (TTX)
8-Hour Climate Adaptation Planning for Emergency Management, National Disaster Preparedness Training Center
8-Hour Winter Storm Drill (TTX), EMA & Governor's Office
2-Hour Ingestion Pathway Radiation Training
4-Hour Ebola TTX

4-Hour Competency (Evidence Collection Training)
4-Hour New England Emergency First Responders TTX, MA
8-Hour Competency (Level A Training)
35-Hour New England Radiation Health Conference (NERHC), Radiation Training
3-Hour Critical Incident Stress Management (CISM)
1-Hour Ebola Training
8-Hour FBI First Responder Training
8-Hour HAZWOPER Refresher (RI Fire Academy)
4-Hour Competency (Metering Training)
24-Hour Plymouth Haz/Mat Training, MA
2-Hour Fit Testing

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 and cities/towns, Smithfield Police Department, Cardiopulmonary Resuscitation (CPR) Training, *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. A portion of 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 (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. 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 $2.7 million for 105 projects, which has leveraged more than $23 million in matching funds. In its twelve 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 10 semi-monthly meeting in Providence. Projects approved for funding include two anadromous fish passage restoration projects, a salt marsh restoration project, a barrier beach restoration project, two coastal upland restoration projects, and one equipment request for the RI Department of Environmental Management (RIDEM). Project locations span the entire state, from Napatree Point in Westerly to Quicksand Pond in Little Compton, and to Blackstone Park in upper Narragansett Bay in Providence.

Seapowet Point Restoration and Coastal Resilience Project, Tiverton
Award: $30,759
Lead Organization: RIDEM Division of Fish and Wildlife

In its request for proposals, the CRMC put special emphasis on projects that would enhance the resiliency of Rhode Island's coastal habitats to climate change and sea level rise. The Seapowet Point Restoration and Coastal Resilience Project, exemplifies these goals. The RIDEM Division of Fish and Wildlife received $30,759 to reconfigure public access, change land management practices and enhance vegetation at a state-owned shoreline property in Tiverton. The changes allowed for the migration and future development of coastal wetlands as sea levels rise, and enhance the existing shoreline habitat while still allowing for safe public access and recreation.


Photo Courtesy of Google Maps

Mussachuck Creek Obstruction Removal Project, Barrington
Award: $5,000
Lead Organization: Save The Bay

Save The Bay received $5,000 to improve anadromous fish passage to 86 acres of spawning area by removing obstructions from Mussachuck Creek in Barrington. The project was carried out in partnership with the Rhode Island Country Club and the RIDEM's Division of Fish and Wildlife.

Goosewing Beach Salt Marsh Restoration, Little Compton
Award: $9,300
Lead Organization: Nature Conservancy

The Nature Conservancy received $9,300 to continue its work restoring native plant communities within the salt marsh complex at Goosewing Beach in Little Compton. This has been an ongoing project funded previously by the CEHRTF and the US Fish and Wildlife Service, and earlier phases have been successful at managing the invasive plant species *Phragmites australis* at the project site while allowing native plants to establish and

thrive. The award went towards maintaining the gains made to-date through follow-up monitoring and management.

Rose Island Bird Restoration, Newport
Award: $16,000
Lead Organization: Rose Island Lighthouse Foundation


Courtesy of Rose Island Lighthouse Foundation

The Rose Island Lighthouse Foundation received $16,000 to fund initial phases of a wading bird restoration project on Rose Island in Newport. The ultimate goal is to restore nesting populations of wading birds recently extirpated from the island. The early phases of the project will include planting of native tree species to serve as a screen between nesting habitat areas and areas of heavier human activity as well as the deployment and monitoring of bird decoys.

Napatree Point Barrier Beach Restoration, Westerly
Award: $20,433
Lead Organization: Watch Hill Conservancy

The Watch Hill Conservancy received $20,433 for restoration of barrier beach plant communities on Napatree Point in Westerly. The funded project will expand upon restoration efforts previously funded by the CRMC and the URI Coastal Institute to control invasive plant species and plant native barrier beach species that will help to improve habitat value and decrease the area of walking trails that allow for human disturbance of the dune system.

Blackstone Park Erosion Control Project, Providence
Award: $30,000
Lead Organization: Blackstone Parks Conservancy

The Blackstone Parks Conservancy received $30,000 for the second phase of a restoration project previously funded through the CEHRTF. The project will address severe erosion problems in a forested coastal upland in Blackstone Park in Providence through an extensive planting effort and trail maintenance measures.


Courtesy of Traveler David W.

Shady Lea Dam Removal, North Kingstown
Award: $100,000
Lead Organization: Save The Bay

Save The Bay received $100,000 towards removal of the Shady Lea dam on the Mattatuxet River in North Kingstown. This project received funding previously through the CEHRTF for design and a portion of the construction costs. Additional funding has been provided through the US Fish and Wildlife Service and the dam owner.


Courtesy of RI Coastal Resources Management

WATER QUALITY MONITORING (FORMERLY THE RHODE ISLAND BAYS, RIVERS and WATERSHEDS COORDINATION TEAM PROJECTS)

In 2007, the general assemble provided OSPAR funding to the Rhode Island Bays, Rivers and Watersheds Coordination Team (CT). It was 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, Rivers and Watersheds Coordination Team that had previously been authorized to expend the funds.

Listed below are the Strategic Investments by RIDEM to Support a Comprehensive Water Monitoring Strategy for FY2015.

Cooperative Agreement with United States Geological Survey

As authorized, 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 2015 OSPAR contribution was $207,088 contractual and the other funding came from the USGS match. During FY15, 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.

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.