Oil Spill Prevention, Administration and Response (OSPAR) Fund

Annual Report

RI DEM Office of Emergency Response

FY 2020

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 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 funding for a prompt response, containment and remediation of oil spills. OSPAR funds are also utilized to maintain state of emergency response readiness via responder training and equipment acquisition. In the event of a significant release, OSPAR can fund emergency loans for affected workers 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).

In the twenty-five (25) years since OSPAR was enacted, Rhode Island has experienced an increase in impacts from climate change including intensified storms, warming air and waters, increased annual rainfall and rising sea levels. These consequences further strain our coastal and riverine habitats and infrastructure. During instances where rainfall or storm surges lead to flooding, releases of oil and hazardous materials into the environment increase and necessitate emergency actions and remediation. With our changing climate, there is a growing urgency for strong preparedness and training for responding to weather related issues.

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 2020.

2. REVENUES & EXPENDITURES – FY2020

The OSPAR account started FY2020 with a balance forward of $3,188,721.00 and ended the fiscal year with a balance of $3,495,655.00. During FY2020, the $0.05 per barrel fee resulted in the collection of $2,268,188.00 after the 10% cost recovery fees per RIGL 46-12.7-4.1(g). Personnel, operating and project expenditures for FY2020 totaled $1,961,254.00. The OSPAR balance had been on a downward trend since FY2014, but in FY2019 and FY2020 the closing balance of the fund increased. In FY2020, this was due to decreased expenditures.

Figure 1 provides an overview of the approximate OSPAR Fund revenues and expenditure activities since FY2011.

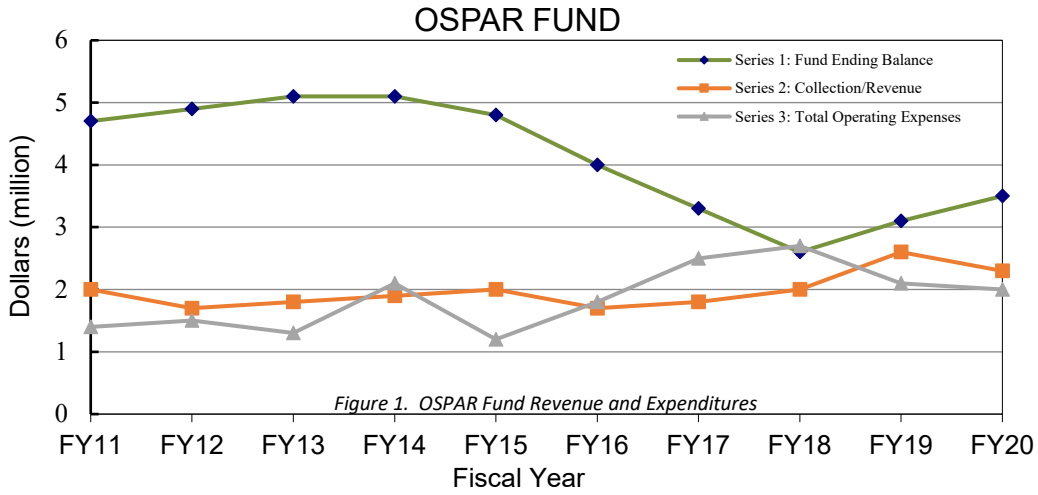


Figure 1. OSPAR Fund Revenue and Expenditures

2.1 EXPENDITURES

2.1.1 Personnel Costs

- Partial salary and benefits for the 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 who supports the Emergency Response Office and the OSPAR program.
- A State Meteorologist to provide weather information before, during and after spill response activities, as well as 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 Rhode Island 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 the extent of spill, fish kills, etcetera. 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 the DEM Office of Land Revitalization & Sustainable Materials Management, who oversee the investigation and cleanup of properties contaminated from the release of oil.

Personnel Costs	**$ 1,053,076**

2.1.2 Major Operating Expenses

Vehicle Purchases, Maintenance & Readiness	$ 220,580
Supplies: Office, Scientific, Miscellaneous Expenses	$43,503
Major Operating Expenses	**$ 264,083**

2.1.4 Capital Projects

Pier 9 Oil Igloo Containment Building	$32,363
Capital Projects	**$ 32,363**

2.1.4 Other Projects supported by the OSPAR Fund

Audubon Society – Narragansett Bay Estuarine Program	$ 88,742
Coastal and Estuarine Habitat Restoration Trust Fund	$250,000
Water Quality Monitoring Team	$178,241
Port of Providence Marine Strike Team (EMA)	$94,749
Other Projects supported by the OSPAR Fund	**$ 611,732**

2.1.5 Total OSPAR Expenditures ***$1,961,254***

The expenditures specifically listed above represent the larger costs associated with the funding for FY2020.

3. RESPONSE ACTIVITIES – FY2020

In FY2020 the Office of Emergency Response (OER), which operates as an all-hazard response program incorporating 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 678 emergency response investigations undertaken by the Office during FY2020. While there is some annual variation in the number of emergency responses, the trend of the data has been constant over the last several years. This year the numbers were slightly lower due to the COVID-19 Pandemic. The incidents comprised two primary categories: oil spills and hazardous material responses.

Figure 2 tracks the number of emergency response activities for a 10-year period.

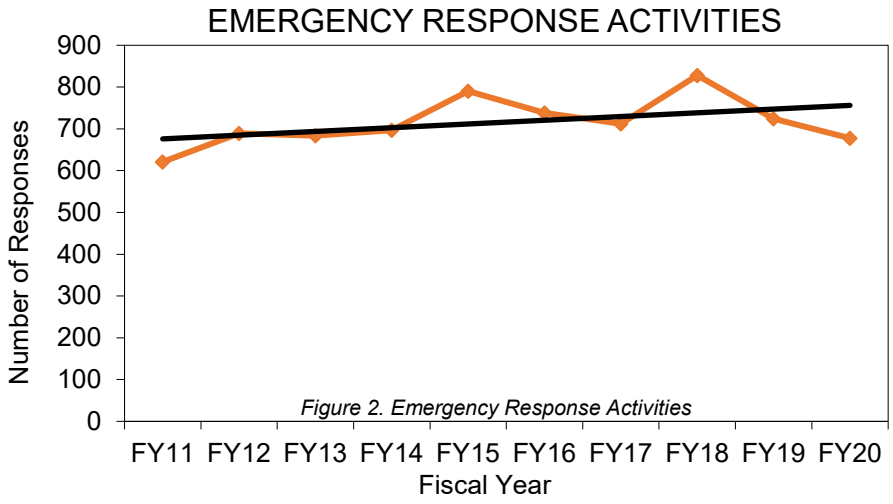


Figure 2. Emergency Response Activities

3.1 OIL SPILL RESPONSE ACTIVITIES – FY2020

The DEM Emergency Response team responded to 547 oil spills during FY2020, which represents 80% of total responses. The amount of oil products and oil spill debris remediated or removed from the environment was estimated to be 11,116,356 gallons of oil and 594 tons of oil spill debris. The remediation work was completed by the OER, the OER contractors, and/or the responsible party or their contractor. To ensure compliance with state and federal regulations, the work was overseen by OER staff.

The circumstances causing these releases and their consequential environmental impacts vary. The categories of oil spills and the relative percentages of each spill type are illustrated in Figure 3.

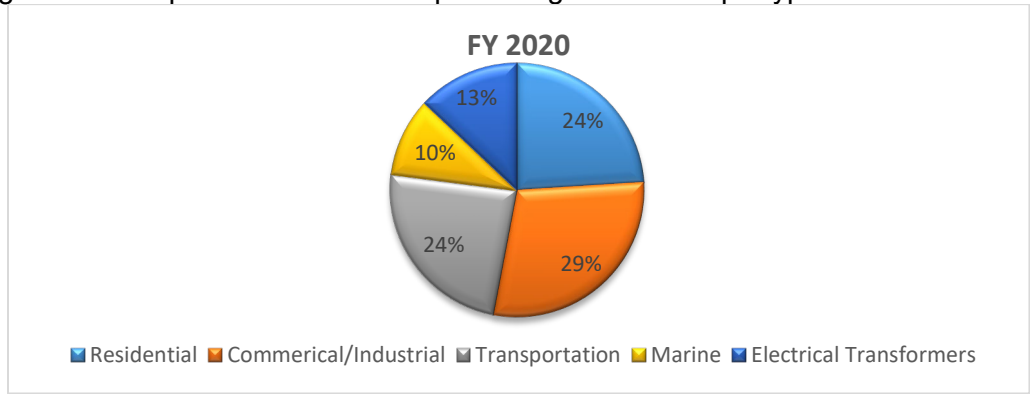


Figure 3. FY2020 Oil Spills by Category

The greatest percentage of oil spills, 29% in total, was caused by commercial and industrial incidents. Residential and transportation oil spills comprised the second largest category, accounting for 24% of oil spills. 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. DEM has posted information on the OER web page on how to minimize the risk of a spill or release from a residential oil tank at:

https://novascotia.ca/nse/contaminatedsites/docs/Contaminants_Oil_tank_WEB.pdf.

DEM continues to conduct public outreach through press releases, televised special reports and presentations to oil companies via insurance seminars. DEM also cooperates with the Oil Heat Institute to provide pertinent information to the oil service industry. Oil spills from electrical transformers comprised 13% of spill events. OER personnel continue to meet with electric companies to discuss electrical transformer issues and assure proper cleanup of mineral oil dielectric fluid (MODF) and PCB contaminated transformer oil. Oil spills in Narragansett Bay and other marine areas comprised 10% of response activities. DEM and the United States Coast Guard (USCG) have been conducting workshops in the Port of Galilee to educate commercial fishermen on state and federal requirements for the proper containment and disposal of generated oily waste. These workshops are intended to reduce the number of oil spills in the Port of Galilee. The categorical ranking of oil spills has remained relatively constant over the last few years, while the degree of variance fluctuated significantly during FY2020.

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

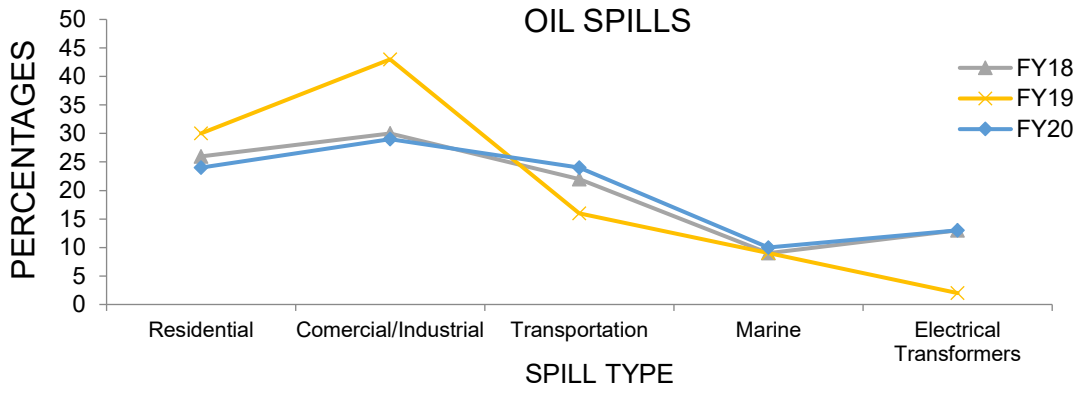


Figure 4. Comparisons of Oil Spills FY2018, FY2019 and FY2020

3.2 HAZARDOUS MATERIALS RESPONSE ACTIVITIES – FY2020

During FY2020, 20 % of the response actions involved hazardous materials, totaling 98 responses. The amount of hazardous materials/waste remediated or removed from the environment during these response activities was estimated to be 33,184 gallons of hazardous materials/waste and seven tons of solid hazardous materials. 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 overseen by OER staff.

4. OER INITIATIVES, INCIDENTS/EXERCISES – FY2020

4.1 Fire Fighting Foam Take Back Program

In 2018, DEM established an Aqueous Film-forming Foams (AFFF) Take Back initiative by reaching out to the Rhode Island Association of Fire Chiefs. The Fire Chiefs Association forwarded letters from DEM to all Rhode Island fire departments. The letters provided information on options available to assist fire departments with the removal and disposal of these "legacy" fire-fighting foams. The letters also stated that AFFF manufactured prior to 2003 contains certain per- and poly-fluoroalkyl substances (PFAS) that have the potential to disperse throughout the environment and contaminate groundwater and drinking water sources, therefore requiring proper removal and disposal.

"DEM is committed to protecting Rhode Island's water resources and drinking water supplies from contamination by the toxic compounds found in fire-fighting foam, and we look forward to working with local fire departments through this new initiative," said DEM Director Janet Coit. "If not properly disposed of, this material poses a serious threat to the health and safety of our environment. We need to look no further than the Oakland-Mapleville Water District in Burrillville, where drinking water supplies were contaminated by fire-fighting foam that wasn't disposed of the right way."

To help Rhode Island fire departments dispose of legacy fire-fighting foam inventories, the OER secured a bulk pricing rate from New England Disposal Technologies Inc. (NEDT) for the removal and incineration of any remaining stockpiles. Although individual fire departments are responsible for removal and disposal costs, DEM streamlined the pick-up of the materials and assisted in the removal process. To minimize costs, DEM designated one centralized location at the Rhode Island Fire Academy where fire departments could drop off their inventory of AFFF with DEM and the disposal contractor. Using a centralized location and economies of scale saved all participating fire departments time and money.

Manufacturers ceased all production of these problematic foams in 2002. Since then, manufacturers developed different formulations of AFFF by utilizing alternative PFAS said to present a lessened environmental threat. However, environmental and human health impacts from exposure to these PFAS compounds have not been fully investigated. DEM is advising fire departments to properly store these materials. Optimal management practices include storing AFFF containers in containment areas away from any drains. In addition, DEM strongly recommends that fire departments use training foams without PFAS for exercises and limit future purchases of AFFF to fluorine-free foam. Use of the AFFF that contain PFAS during actual fire incidents should be limited and contained using best management practices.

On December 11, 2019 DEM conducted the take back of AFFF at the RI Fire Academy along with NEDT. Eight fire departments participated in the program and the material was removed from their vehicles and placed in secondary containment systems. Every container was inspected, and each different brand was sampled by EPA for their analytical library. The analytical library provides an inventory of different types of AFFF to help fingerprint future sources of various mixtures, combinations and ratios (cocktails) of PFAS found in the environment. This type of fingerprinting has been commonly used with oils and PCBs to provide clues on the source of contamination. After the sampling was complete the containers were then shrink-wrapped on pallets and put into a semi-tractor trailer for transportation. In total 18,000 pounds of AFFF were

taken by NEDT for proper incineration, eliminating the threat of contamination to the environment and potential human health impacts.

4.2 Memorandum of Agreement With EMA

The Rhode Island DEM, as administrator of the OSPAR Fund, agreed to provide funding for the Port of Providence Marine Strike Team (PPMST) and Flammable Liquids Task Force (FLTF) on an annual basis. DEM agreed to provide an annual grant of up to $172,000 per year from the OSPAR Fund to the Rhode Island Emergency Management Agency (RIEMA). RIEMA will use these funds to purchase supplies and pay maintenance, personnel, and training expenses associated with the PPMST and FLTF.

The PPMST is a waterside asset implemented to mitigate chemical, incendiary, environmental and human safety incidents that occur in the Port of Providence or contiguous waters. In the event of an oil spill, the team can deploy boom, serve as a platform for water sampling and can conduct air quality monitoring. The team currently consists of four boats from Providence, Warwick, East Providence and Cranston. This investment provides funding for the PPMST to conduct two trainings per calendar year and maintain their vessels. These funds cover the cost four all four departments to participate in the training and also funds the maintenance required to keep the boats mission ready. This funding allows the teams to train on their core competencies and keep their equipment in a state of readiness to help them better protect the Port of Providence and surrounding waters.

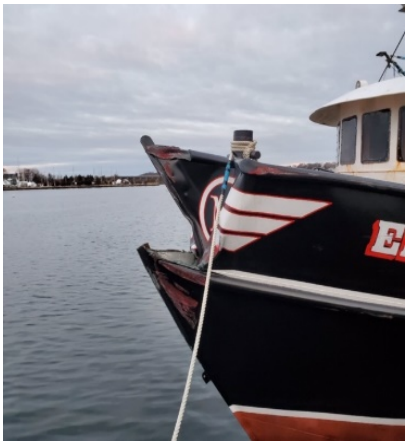
The FLTF mission is to protect life, property, and critical infrastructure by using available assets to contain, control, and extinguish fires, or releases and spills involving flammable or combustible liquids and gases including oils and petroleum. The task force consists of six foam trailers from Providence, East Providence, Woonsocket, Johnston, Warwick and Valley Falls. The purpose of this OSPAR Fund investment is to provide funding for the FLTF to conduct two trainings per calendar year and to maintain their equipment. These costs cover the expenditures for the six (6) departments to participate in the trainings, as well as fund any necessary maintenance on the equipment. This funding would allow the task force to train members on how to properly operate equipment and ensure that equipment is functioning properly and maintained in a state of readiness.

4.3 Iver Prosperity Incident, January 27, 2020

The USCG was notified that the Iver Prosperity was involved in a collision with the commercial fishing vessel (CFV) Edna May the night of January 27, 2020. The collision occurred approximately 25 nautical miles south of the Vineyard at 40°57.000'N 070°43.000'W. The Iver Prosperity was scheduled to arrive at the Shell Terminal in Providence on January 28, 2020 to offload fuel. The USCG was notified immediately since the incident started as a search and rescue case with the CFV reportedly taking on water. After initial emergency discussions, the USCG ordered the Iver

Prosperity to navigate to Brenton Reef Outer Anchorage and stay at that location pending further review.

The vessel was loaded in Saint John, Canada and was scheduled to offload in Providence at Shell and Sprague as well as in New Haven at a Gulf Terminal. The vessel's movements were restricted to their current location of Brenton Reef Outer Anchorage (41.3499N/71.31764W) while USCG and DEM awaited a plan for offloading of the cargo addressing the structural integrity of the vessel during the offload process. The other vessel involved in the collision was the CFV EDNA MAY which traveled to Tiverton with damage to the bow. A Response Petty Officer and a Marine Inspector visited the vessel and reported that there were no pollution concerns.



The following day the USCG Prevention Department responded to complete a damage assessment and evaluate the safety of offloading product onboard. The Iver Prosperity was carrying mixed regular and premium gasoline; total product onboard; 263,852.5 barrels (bbls) or 11,081,805 gallons with approximately 2,100 bbls being in the tank nearest the damage.

The vessel sustained two punctures to the outer hull adjacent to the starboard #6 ballast tank. The USCG provided DEM updates on plans, damage assessment, and potential for the vessel to offload at Shell as information became available.

On January 31, 2020 the USCG and DEM jointly reviewed the offload plan provided by Lloyds Register and approved it with some modifications. The USCG then provided the go ahead to offload the tank the following day.

On February 1, 2020 at approximately 3:00 pm the tanker commenced delivery of 127,990 bbls of gasoline at Shell Terminal.

On February 2, 2020 at approximately 9:00 am the tanker commenced delivery of 90,000 bbls of gasoline at Sprague Terminal Pier in East Providence. The offloading went off without any issues. After offloading the tanker went to Berth 6 at PROVPORT for repairs.

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 the tide, currents, and weather. The 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 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 can make decisions on vessel movements with real-time information.

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 (ACOE). It is the only commercially available portable piloting navigation system incorporating ACOE channel data on customized vector electronic charts with sub-meter positional accuracy necessary for precision navigation in Rhode Island 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 FY2020 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 Regional Response Team Meeting
8-Hour Hazardous Materials Technician Training
1-Hour Remote Sensing, GIS and Modeling
1-Hour LNG Releases Training
1-Hour Sunken Oil Mats Training
1-Hour Ocean Oil Droplet Formations and Transportation
1-Hour Ocean Modeling
1-Hour Herding Agents to Carrol Spills and UAS Usage
1-Hour Oil Detection with Canines
1-Hour Historic Subsea Pollution
1-Hour Satellite Detection of Oil Spills
1-Hour Natural Resource Training
1-Hour Air Quality Monitoring
1-Hour Natural History
1-Hour PFAS Training
1-Hour Landscape and Forest Stewardship
1-Hour Dam Safety Training
1-Hour Climate Change Training
1-Hour Cyber Security Training
8-Hour HAZWOPER Refresher
2-Hour Access to Public Records Class
16-Hour Hazardous Materials Technicians Training
4-Hour Hazardous Materials Technicians Training
8-Hour Scientific Support for Environmental Emergencies Workshop
24-Hour CAMEO Training
35-Hour Large Scale Air Monitoring Jazz Fest
35-Hour Large Scale Air Monitoring Folk Fest
4-Hour Coaching Techniques for Supervisors
4-Hour Newport Folk Festival Drill
2-Hour Active Shooter Training
2-Hour Improving Workplace Relationships
8-Hour Rad Responder Training

4-Hour Hazardous Materials Technicians Training
8-Hour Radiation Tabletop Exercise
8-Hour Shoreline Cleanup Assessment Techniques Training for Marine Oil Spills
16-Hour Large Scale Air Monitoring for Audrain's Newport Concours & Motor Week
4-Hour Hazardous Materials Technicians Training

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 HazMat Teams, *Radiation Safety Training* with EMA, Local Hazardous Material Teams, *Homeowner Oil Spill Handling* for oil companies, *Chemical Safe Schools* for educators, *Hazardous Materials Recognition & Identification Refresher* for RIDOT, *Traffic Incident Management Training* for RIDOT, cities/towns, *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 Rhode Island General Assembly enacted legislation (RIGL 46-23.1) that established a coastal and estuarine habitat restoration program administered by the Rhode Coastal Resources Management Council (CRMC). Funding from the OSPAR Account, established by the legislature following the 1996 North Cape oil spill, continues to be transferred to CRMC in accordance with RIGL § 46-23.1-3**.** The financial support is funded through the Rhode Island Coastal and Estuarine Habitat Restoration Trust Fund (CEHRTF). Habitat restoration projects are selected from recommendations by the Technical Advisory Committee and approved by CRMC. Each year, the CEHRTF advisory committee, with approval of the CRMC allocates up to $225,000 from the OSPAR account to habitat restoration projects throughout the state.

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 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.

Since the inception of the Trust Fund, CRMC has awarded $3.6 million for 136 projects, which have leveraged more than $28 million in matching funds. In its 17 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/.

On April 3, 2020, projects approved for funding included a shoreline restoration project, salt marsh and dune restoration projects, a shoreline adaptation project, and a riverine edge restoration. Two other projects involved fish passage or riverine habitat improvements. CRMC put special emphasis on projects that would enhance the resiliency of Rhode Island's coastal habitats to climate change and sea level rise.

7.1 Upper Kickemuit River Dam Removal (Phase I), Warren

Award: $75,000

Lead Organization: Bristol County Water Authority


Photo Courtesy of Rhodybeat.com

Funding was provided for the second phase of a project to remove the upper Kickemuit River dam in Warren. Design, engineering, and permitting of the project has taken place and received funds from the fund last year. This round of funding will allow the partners to conduct a sediment assessment, study of the bottom of the river, well testing, and additional engineering and permitting. Removal of the dam will restore 16 acres of anadromous fish habitat and freshwater wetlands. In 2007, the Rhode Island Department of Environmental Management's Division of Fish and Wildlife and its partners built a fish ladder at the lower Kickemuit River dam, but the river herring population hasn't recovered since that time partly because of check valves on the flow outlets of the upper dam. The dam's removal will be the first step in abandoning this vulnerable drinking water supply and will enhance river connectivity, improve fish passage into the upper river, increase freshwater wetland habitat, and reduce infrastructure flooding.

7.2 Belville Fish Ladder Improvements, North Kingstown

Award: $66,000

Lead Organization: The Nature Conservancy

Project partners aim to improve upstream and downstream passage for the diadromous fish runs in the Annaquatucket River watershed by installing a set of rock weirs downstream of the existing entrance channel to provide proper depth between the stream channel and the ladder. The project also aims to increase the size of the anadromous fish population and eventual supply of forage species to recreational and commercial fish in the watershed, lower Narragansett Bay, and Rhode Island Sound. The partners received funding in 2019 from the fund to conduct similar improvements to the Hamilton Fish Ladder, also on this waterway.


Photo Courtesy of Ecori.org

7.3 Rose Larisa Memorial Park Erosion Control, East Providence

Award: $40,000

Lead Organization: CRMC & Nature Conservancy

The Project is designed to reduce coastal erosion using nature-based infrastructure at Rose Larisa Memorial Park in East Providence. The public park is bordered by a steep bluff and is subject to high-energy tidal and wave action, causing bluff erosion which threatens nearby residential properties and the park itself. Plans include the restoration of a 100-foot stretch of eroding bluff, and to test the effectiveness of using nature-based solutions, including salt marsh creation at the base of the bluff and building an intertidal rock sill to try to trap sand.

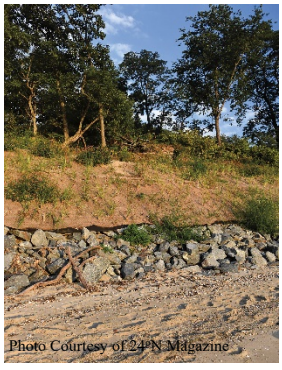


Photo Courtesy of 24°N Magazine

7.4 Walker Farm salt Marsh Migration and Buffer Restoration, Barrington

Award: $27,450

Lead Organization: Town of Barrington

The project will restore about a third of an acre of shoreline habitat, along with 300 feet of shoreline bordering Hundred Acre Cove. This project is part of a larger effort, which includes restoring an additional two-thirds of an acre of salt marsh and coastal buffer habitat.

7.5 Goosewing Beach salt marsh Restoration Project, Little Compton

Award: $6,000

Lead Organization: Nature Conservancy

The project will address the phragmites problem in 16 acres extending over 4,000 feet of shoreline at Quicksand Pond.

7.6 Third Beach Restoration, Middletown

Award: $4,900

Lead Organization: Norman Bird Sanctuary

The area suffers from significant erosion impacts, particularly as a result of human foot traffic from beachgoers cutting through the dunes, as well as from sea-level rise and storm surge. Project partners plan to plant native vegetation to restore the eroded areas, create natural barriers to discourage future foot traffic, and to restore native ecosystems, species, and biodiversity. Coordinated volunteer planting efforts are expected to start this month.

7.7 Blackstone Park Conservation District Coastal Upland Edge Restoration, Providence

Award: $5,650

Lead Organization: Blackstone Parks Conservancy

In addition to these fully funded projects, CRMC also approved partial funding ($5,650) for coastal upland edge restoration in the Blackstone Park Conservation District in Providence. The Blackstone Parks Conservancy and its partners plan to restore an eroded trail in the park and adjacent forest by stabilizing the trail, adding plants, and protecting sensitive trail entrance points with fencing and signage.

8. WATER QUALITY MONITORING

Effective July 1, 2015, amendments to Rhode Island General Law (RIGL) 46-12.7-13 authorized DEM to direct the use of up to $250,000 in OSPAR funding annually for environmental monitoring purposes. The Water Quality Management Plan Advisory Committee (WQMPAC) selects the strategic investments.

8.1 Cooperative Agreement with United States Geological Survey

As authorized by the WQMPAC, DEM continued its cooperative agreement with the United States 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 2020 OSPAR contribution was $250,000 and the other funding came from the USGS match. Funding from the Rhode Island Water Resources Board also contributed to the jointly negotiated program of activities. During FY20, 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 nine observation wells located throughout Rhode Island. 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 quarterly for metals. 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 FY2021 are expected to slightly increase but, absent any major spills and associated response needs, costs should remain stable. Fiscal year 2020 showed revenues dropping, which appear to be due to the COVID-19 pandemic. Since Rhode Islanders traveled less and worked from home, they used much less gasoline. Nevertheless, expenditures were the lowest in recent years. As a result, the ending balance increased over $300,000. The concern is that this trend may not be sustained in future years.

10. CONTACT INFORMATION

For further information regarding this report, the activities of the DEM Emergency Response Team or OSPAR, contact James Ball, DEM Emergency Response Administrator, Office of Emergency Response at james.ball@dem.ri.gov or 401-222-4700 extension 77129.