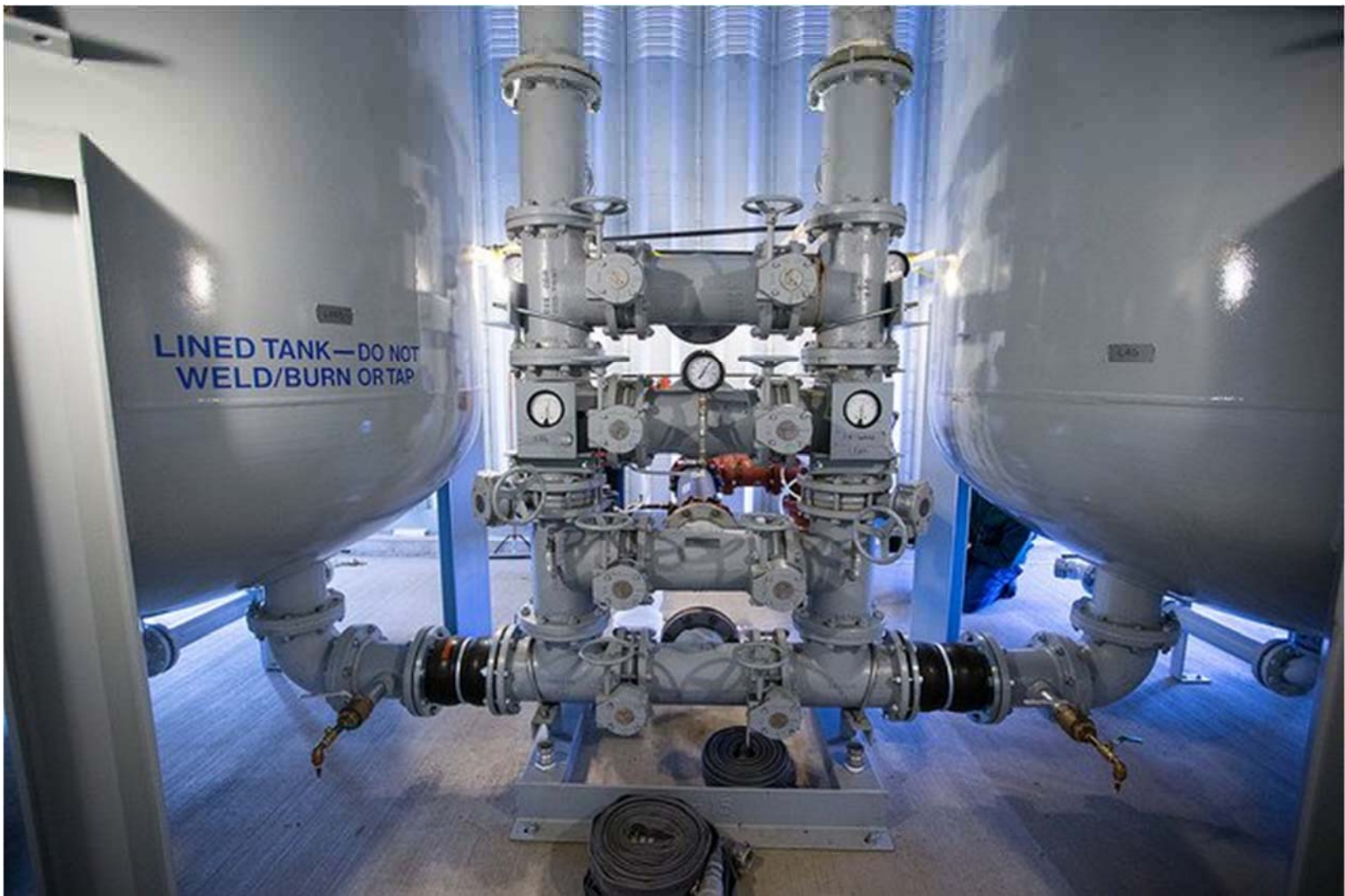




Department of  
Environmental  
Conservation

# DIVISION OF ENVIRONMENTAL REMEDIATION

## 2015/2016 ANNUAL REPORT



[www.dec.ny.gov](http://www.dec.ny.gov)

Andrew M. Cuomo, Governor

Basil Seggos, Commissioner

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*Cover Photograph – Water Filtration System – Hoosick Falls, NY*

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## DIRECTOR'S MESSAGE

I am pleased to present the Division of Environmental Remediation's 2015/2016 Annual Report that highlights our continuing efforts to clean up and revitalize contaminated properties and to effectively manage petroleum and chemicals.

This past year New York, like many states, has begun to grapple with the nationwide impact of emerging contaminants such as perfluorinated compounds (PFCs) impacting groundwater in communities across the state. PFCs are a group of chemicals used to make household and commercial products that resist heat, and repel oil, stains, grease, and water. These compounds also were used widely in firefighting foam. Chemicals in this group include perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS).

In January 2016, the New York State Department of Environmental Conservation (DEC) responded to detections of PFOA in groundwater which had impacted the village of Hoosick Falls municipal drinking water supply and private water supplies (individual wells) in the surrounding Town of Hoosick. Under the direction of Governor Andrew M. Cuomo, DEC and other state agencies began a series of aggressive actions to address the contamination and protect the health of Hoosick Falls residents.

To enable this, New York became the first state in the nation to regulate PFOA by issuing an emergency regulation listing PFOA as a hazardous substance. This rulemaking provided the State with Superfund authority to seek investigations and clean-up of sites in relation to PFOA as well as access to the Superfund for additional state-lead responses.

The State listed the Saint-Gobain McCaffrey Street plant, a source of the PFOA contamination, as a State Superfund site, and through DEC's Office of General Council engaged the Responsible Parties to investigate and remediate the site.

To address private water supplies in the Town of Hoosick, DEC initiated a point-of-entry treatment system (POETS) program, installing carbon filtration systems to ensure that water supplied to the residents, businesses, and schools was PFOA free. To enable such a major program, DEC established a command post in the Town of Hoosick, and utilized the Incident Command System structure, to quickly implement the largest installation of POETS in the State.

At times more than 100 DEC staff used the post, which operated 12 hours a day, seven days a week. Between February 15, 2016, when the first system was installed, and March 31, 2016, more than 570 treatment systems were installed in Hoosick. Further, the State's response was managed not just by DEC, but by a cooperative team involving DEC, the Department of Health, the Department of Agriculture and Markets, and Governor Andrew Cuomo's Office.

Throughout this time, DEC staff were available in the village to answer any questions the community had, listen to their concerns, keep them informed of progress, and to gather any information that the community could provide which might assist the investigations.

In February 2016, Governor Cuomo created a Water Quality Rapid Response Team, led by DEC and the New York State Department of Health (DOH), to quickly investigate water contamination reports across New York and take corrective action to address these contamination issues. This team is seen as a national model to research, identify and quickly address water contamination in communities. The State continues to address drinking water contamination across New York, and calls upon the EPA to implement uniform, nationwide regulations for PFOA and other unregulated contaminants.

The Division of Environmental Remediation (DER) will continue to aggressively address emerging contaminants of concern such as PFCs through our remedial programs where appropriate.

***Robert W. Schick, P.E., Director  
Division of Environmental Remediation***

## DIVISION OF ENVIRONMENTAL REMEDIATION 2015/2016 ANNUAL REPORT

### DIVISION SUMMARY

**Mission:** The mission of the Department of Environmental Conservation's (DEC) Division of Environmental Remediation (DER) is to protect public health and the environment of the State of New York by: preventing releases to the environment through the regulation of petroleum and chemical bulk storage facilities, hazardous waste facilities, and radiation facilities; and responding to, investigating, and remediating releases of contaminants that have occurred.

The DER Annual Report summarizes program accomplishments and statistics for the State Fiscal Year (SFY) 2015/2016 (April 1, 2015 through March 31, 2016) and satisfies various reporting requirements in the New York State Environmental Conservation Law.

The DEC's eBusiness plan encourages the use of the Internet to expedite and increase public access to DEC information. It is also a more cost-effective and sustainable process. Therefore, the DER Annual Report will only be available on the DEC website. See: <http://www.dec.ny.gov/about/53234.html>

**Programs:** This annual report provides an overview of the DER programs listed below:

- State Superfund Program (SSF)
- Brownfield Cleanup Program (BCP)
- Environmental Restoration Program (ERP)
- Voluntary Cleanup Program (VCP)
- Spill Response Program
- Bulk Storage Programs
- Hazardous Waste Management Program
- Radiation Program

## STATE SUPERFUND PROGRAM

### PROGRAM STATISTICS

Number of sites identified as needing evaluation:<sup>1</sup> **2,537**

Number of sites cleaned up or determined to not require further action:<sup>1</sup> **1,762**

Number of sites being or to be addressed as of 3/31/2016:<sup>1</sup> **775**

Number of Class 2 (significant threat) sites as of 3/31/2016: **449**

Number of Class 4 (properly closed/require management) sites as of 3/31/2016: **395**

Number of federal National Priorities List (NPL) sites as of 3/31/2016: **85**

Number of NPL sites delisted as of 3/31/2016: **31**

Cost recovery revenue received during SFY 2015/2016: **\$15.8 million**

<sup>1</sup> Life to Date as of 3/31/2016. Includes Registry and Non-Registry sites.

### PROGRAM DESCRIPTION

**Statutory Authority:** ECL Article 27, Title 13      **Regulation:** 6 NYCRR Subpart 375-2

The goal of the Inactive Hazardous Waste Disposal Site Remedial Program, also known as the State Superfund (SSF) Program, is to identify and characterize suspected inactive hazardous waste disposal sites (sites) and to ensure that those sites which pose a significant threat to public health or the environment are properly addressed.

Sites that pose a significant threat are listed on New York's Registry of Inactive Hazardous Waste Disposal Sites (Registry) as class 2 sites. Those sites being evaluated prior to listing on the Registry, or others which are being cleaned up voluntarily under an order on consent without being listed on the Registry, are identified as "Non-Registry" sites for the purposes of this report.

The SSF Program is an enforcement program. The State is obligated by law to make a good faith effort to identify the parties responsible for the contamination (the responsible parties or RPs) at the site and to obtain their agreement to either perform the necessary remedial activities or provide funding to the State to perform the remedial activities. If the

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State is not successful at doing so, the remedial work is performed by DEC using State funds, and legal action is initiated by the State against the identified responsible party (RP) to recover the State remedial costs.

Sites in New York also include those that qualify for inclusion on the Federal National Priority List (NPL) making them eligible for cleanup under the Federal Superfund Program. The United States Environmental Protection Agency (USEPA) is the federal agency responsible for administering the Federal Superfund Program. No sites in New York were added or deleted to the NPL in SFY 2015/16.

The ten-year authorization to bond new funds under the 2003 Superfund/Brownfield law expired on March 31, 2013. The 2015/2016 New York State Budget included a new \$100 million yearly appropriation and extends the State Superfund cleanup program for ten years.

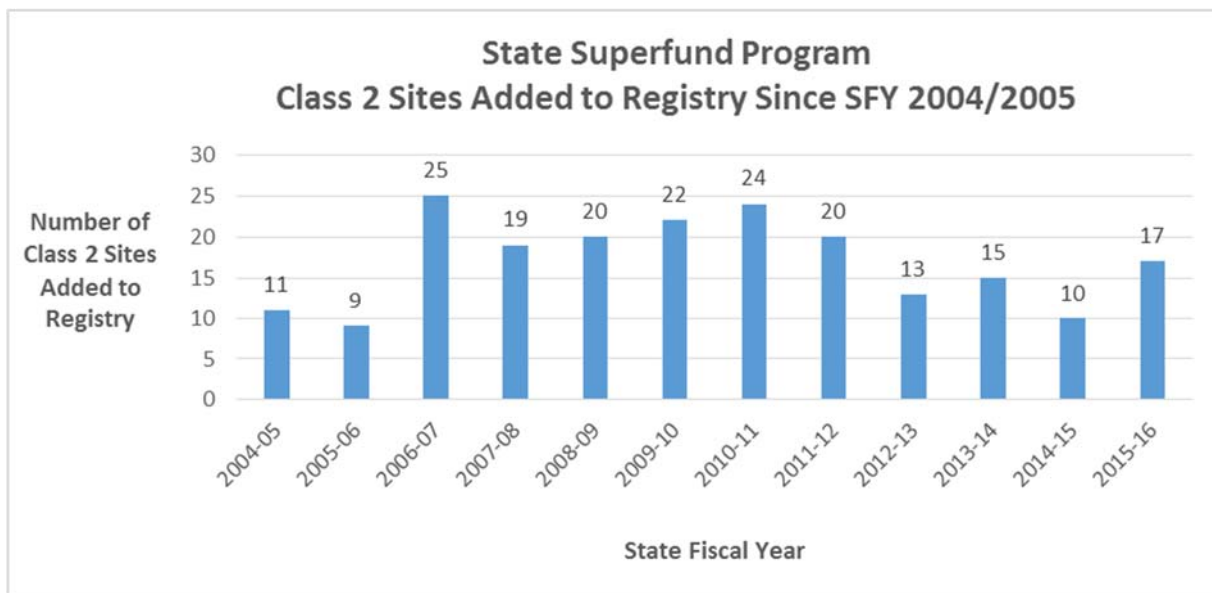
#### THE REMEDIAL PROCESS

Since the remedial program for a site takes a number of years to complete, progress is tracked, not only by the number of sites completed, but also by the number of major remedial elements (projects) started and completed for a site. The major remedial elements in the SSF Program are site characterization, remedial investigation/feasibility study, remedial design, remedial action and interim remedial measure. Site management follows for those sites requiring continued operation, maintenance and monitoring of the engineering and/or institutional controls put in place as part of the site remedy.

Table 1

State Superfund Remedial Project Starts/Completions as of March 31, 2016				
Remedial Element	Starts		Completions	
	SFY 2015/16	Life to Date	SFY 2015/16	Life to Date
Site Characterization	26	1,313	13	1,202
Remedial Investigation/Feasibility Study	22	1,527	24	1,272
Remedial Design	27	1,053	26	932
Remedial Action	39	1,024	35	863
Interim Remedial Measure	21	1,179	29	1,113

Chart 1



**Class 2 Site Trend:** As of 3/31/2016 there are 449 Class 2 sites on the Registry. Class 2 sites require a remedial investigation and feasibility study to determine the nature and extent of contamination and to evaluate potential remedies, which results in a Record of Decision that identifies the remedy selected. Design and implementation of the selected remedy(ies) for a site will follow, resulting in either a reclassification to Class 4, where site management is required, or delisting.

Table 2

Classification of Sites Listed on the State Superfund Registry <sup>1</sup> as of March 31, 2016		
Registry Class	Class Description	Number of Sites
<b>Class 1</b>	Causing or presenting an imminent danger of causing irreversible or irreparable damage to public health or the environment - immediate action required.	<b>0</b>
<b>Class 2</b>	Significant threat to public health or the environment - action required.	<b>449</b>
<b>Class 3</b>	Does not present a significant threat to public health or the environment - action may be deferred.	<b>51</b>
<b>Class 4</b>	Site properly closed - requires continued management.	<b>395</b>
<b>Class 5</b>	Site properly closed, no evidence of present or potential adverse impact - no further action required.	<b>0</b>
<b>Total Number of Sites on the Registry</b>		<b>895</b>

<sup>1</sup>A listing of State Superfund sites can be searched on the DEC website in the [Environmental Site Remediation Database](#).

## KEY SITES

**Onondaga Lake Remediation** (Site Number: 734030): Remedial dredging was completed in 2014, a year ahead of schedule. Approximately 2.2 million cubic yards of contaminated sediments were removed from the lake since dredging commenced in late 2012. Capping of dredged areas of the lake bottom and in other areas, as designated in the Record of Decision, and placement of habitat substrate materials is expected to be completed in 2016. Plantings of the shallow lake bottom and shoreline areas in accordance with the Habitat Restoration Plan are expected to commence in 2016 and to be completed in 2017.

**Hudson River PCB Sediment Site Remediation** (Site Number: 546031): The United States Environmental Protection Agency (USEPA) is the lead on this NPL site. At the close of the 2015 dredging season, the total project's 2.7 million cubic yards of contaminated sediment targeted for removal under EPA's remedy has been dredged. EPA estimated that there will be one additional year of habitat reconstruction work to follow in 2016.

**FMC – Roy-Hart School Remediation:** During the summer of 2016, approximately 900 cubic yards of arsenic contaminated soil will be excavated from the Roy-Hart High School inner courtyards and grass areas adjacent to the southwestern side of the high school. This remediation is part of the overall 14.4 acre remediation required under the Final Statement of Basis (FSB) issued in May 2013 regarding the FMC site. The FSB requires

the removal of arsenic contamination exceeding the 20 part per million soil cleanup objective from the Roy-Hart School property. To date, approximately 8,000 cubic yards of material has been excavated from the school property by the DEC under the State Superfund Program.

**Hoosick Falls PFOA Remediation:** DEC responded to detections of perfluorooctanoic acid (PFOA) in groundwater which had impacted the village of Hoosick Falls municipal drinking water supply and private water supplies (individual wells) in the surrounding town of Hoosick. To enable this, New York became the first state in the nation to regulate PFOA by issuing an emergency regulation listing PFOA as a hazardous substance. This rulemaking provided the State with Superfund authority to seek investigations and clean-up of sites in relation to PFOA as well as access to the Superfund for additional state-lead responses.

The State listed the Saint-Gobain McCaffrey Street plant, a source of the PFOA contamination, as a State Superfund site, and through DEC's Office of General Council engaged the Responsible Parties to investigate and remediate the site.

To address private water supplies in the Town of Hoosick, DEC initiated a point-of-entry treatment system (POETS) program, installing carbon filtration systems to ensure that water supplied to the residents, businesses, and schools were PFOA free. To enable such a major program, a command post was established in the Town of Hoosick. DEC staff from throughout the state came to the command post and utilizing the Incident Command System structure, to quickly implement the largest installation of POETS in the state.

DEC staff from several Divisions were involved in this response. At times over 100 DEC staff were at the post, which operated 12 hours a day, seven days a week. Between February 15, 2016, when the first system was installed, and March 31, 2016, over 570 treatment systems were installed in Hoosick. Further, the State's response was managed not just by the DEC, but by a cooperative team involving the DEC, the Department of Health, the Department of Agriculture and Markets, and the Governor's Office.

DEC also initiated environmental sampling to assess the extent of the problem. Samples were obtained and analyzed for perfluorinated compounds (PFCs) from different media, including: landfill leachate; wastewater treatment plant effluent; soil, groundwater; the Hoosic River; and material from a suspected illegal waste disposal site.

Throughout this time, DEC staff were available in the village three days a week to answer any questions the community may have, listen to their concerns, keep them apprised of progress, and to gather any information that the community may provide which might assist the investigations.

Going forward, DEC will continue expanding investigations to determine the extent of the PFOA contamination in Hoosick and Hoosick Falls. DEC will seek to have responsible parties perform complete investigations and perform remedial action, DEC will not hesitate to perform the work using Superfund if necessary. DEC will continue with POETS installation, and develop and implement a long-term monitoring and maintenance program for all installed POETS to ensure the continued protection of the community's drinking water supply.

**The Northrop Grumman – Bethpage Facility:** Numerous decision documents were issued outlining remedies to address contamination at this former aerospace facility where operations at the site resulted in numerous releases of contamination to the environment. The Northrop Grumman Corporation and the United States Navy are responsible parties for the site. DEC has worked to ensure that the remedies outlined in the decision documents are implemented as quickly as possible. As part of these efforts, Northrop Grumman entered into an Order on Consent for Operable Unit 2, the Navy completed delineation of a newly discovered hot spot and Grumman began remediation of the residential properties adjacent to the facility. In an effort to move the offsite groundwater remediation faster, Commissioner Segos sent a letter to Grumman in March 2016 insisting that they implement the remedy more quickly and provide a schedule for the expedited work.

## BROWNFIELD CLEANUP PROGRAM

### PROGRAM STATISTICS

	SFY 2015/16	LTD <sup>1</sup>
Number of applications received	<b>92</b>	<b>780</b>
Number of applications approved	<b>69</b>	<b>658</b>
Number of applications pending as of 3/31/2016	<b>25</b>	
Number of applications ineligible or withdrawn prior to approval	<b>5</b>	<b>163</b>
Number of active sites as of 3/31/2016	<b>360</b>	
Number of active sites that currently pose a significant threat as of 3/31/2016	<b>91</b>	
Number of Certificates of Completion (COC) issued	<b>48</b>	<b>243</b>
Number of sites with COCs issued that posed a significant threat		<b>78</b>
Total Acreage associated with COC sites		<b>1,520</b>
Total Acreage associated with active BCP sites		<b>2,434</b>
Cost recovery revenue received during SFY	<b>\$4.1 million</b>	

<sup>1</sup> Life to date as of 3/31/2016

## PROGRAM DESCRIPTION

**Statutory Authority:** ECL Article 27, Title 14      **Regulation:** 6 NYCRR Subpart 375-3

The Brownfield Cleanup Program (BCP) is intended to encourage private-sector cleanups of brownfields and to reduce development pressure on “greenfields” (land not previously developed or contaminated). Once all technical and legal requirements have been met under a Brownfield Cleanup Agreement, DEC issues a Certificate of Completion (COC), which entitles the BCP party to State liability limitation (with standard reservations) and various tax credits.

The State oversees the cleanup at BCP sites. If the BCP party is determined to be a responsible party (known as a “participant”) under the BCP, then the party must reimburse the State for oversight costs and any other site-related remedial costs the State incurred prior to the site’s becoming a BCP site. BCP parties that are not responsible for the contamination (known as “volunteers”) are not required to pay oversight costs under recent amendments.

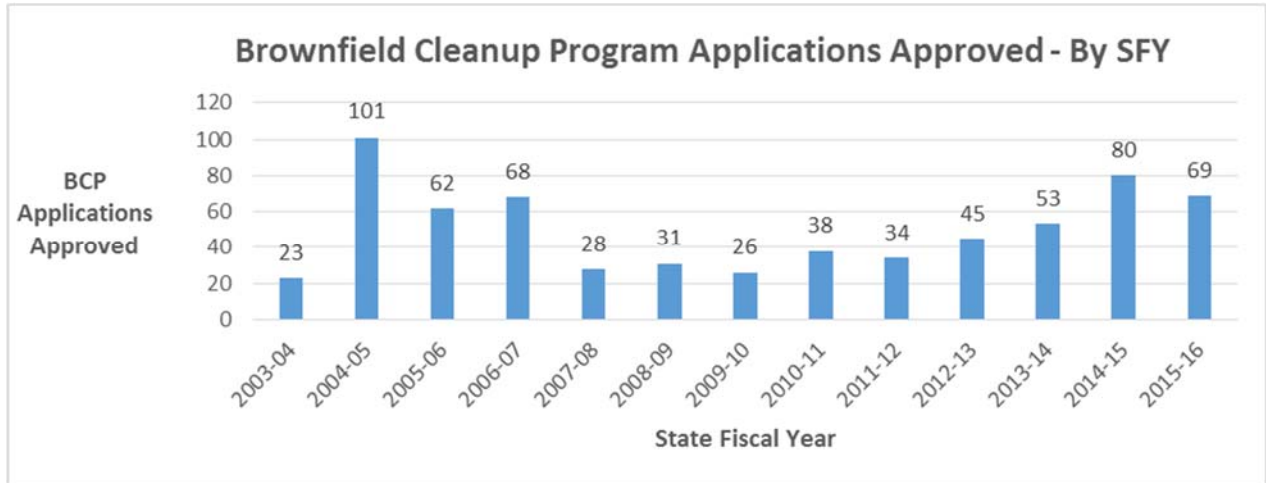
## THE REMEDIAL PROCESS

Since the remedial program for a site can take a number of years to complete, DER tracks BCP progress by the number of COCs issued as well as the number of major remedial elements (projects) started and completed for a site. The major BCP remedial elements are remedial investigation, remedial design, remedial action and interim remedial measure.

**Table 3**

BCP Remedial Project Starts/Completions as of March 31, 2016				
Remedial Element	Starts		Completions	
	SFY 2015/16	Life to Date	SFY 2015/16	Life to Date
Remedial Investigation	58	536	67	338
Remedial Design	50	274	50	254
Remedial Action	61	290	49	217
Interim Remedial Measure	22	212	18	168

Chart 2



**BCP Application Trend:** The total number of BCP applications approved is 658. The spike in the number of applications in 2004 was the result of parties in the Voluntary Cleanup Program transferring to the BCP during the 2004 transfer period. The high number in 2014-15 was in part the result of developers' desire to qualify for tax credits under existing criteria, before the effective date of changes adopted in 2016.

Table 4

<b>BCP Approved Applications and Active Sites<sup>1</sup> by DEC Regions as of March 31, 2016</b>					
<b>DEC Region</b>	<b>Counties</b>	<b>BCP Approved Applications</b>	<b>Approved Applications: Percentage of Total</b>	<b>Active Sites<sup>1</sup></b>	<b>Active Sites<sup>1</sup> Percentage of Total</b>
<b>1</b>	Nassau, Suffolk	30	4.6%	13	<b>3.6%</b>
<b>2</b>	Kings, Bronx, Queens, New York, Richmond	245	37.2%	144	<b>40.0%</b>
<b>3</b>	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	101	15.3%	53	<b>14.7%</b>
<b>4</b>	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	17	2.6%	12	<b>3.3%</b>
<b>5</b>	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	7	1.1%	3	<b>0.8%</b>
<b>6</b>	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	13	2.0%	7	<b>2.0%</b>
<b>7</b>	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	46	7.0%	22	<b>6.1%</b>
<b>8</b>	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	64	9.7%	30	<b>8.4%</b>
<b>9</b>	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	135	20.5%	76	<b>21.1%</b>
<b>Totals</b>		<b>658</b>	<b>100%</b>	<b>360</b>	<b>100%</b>

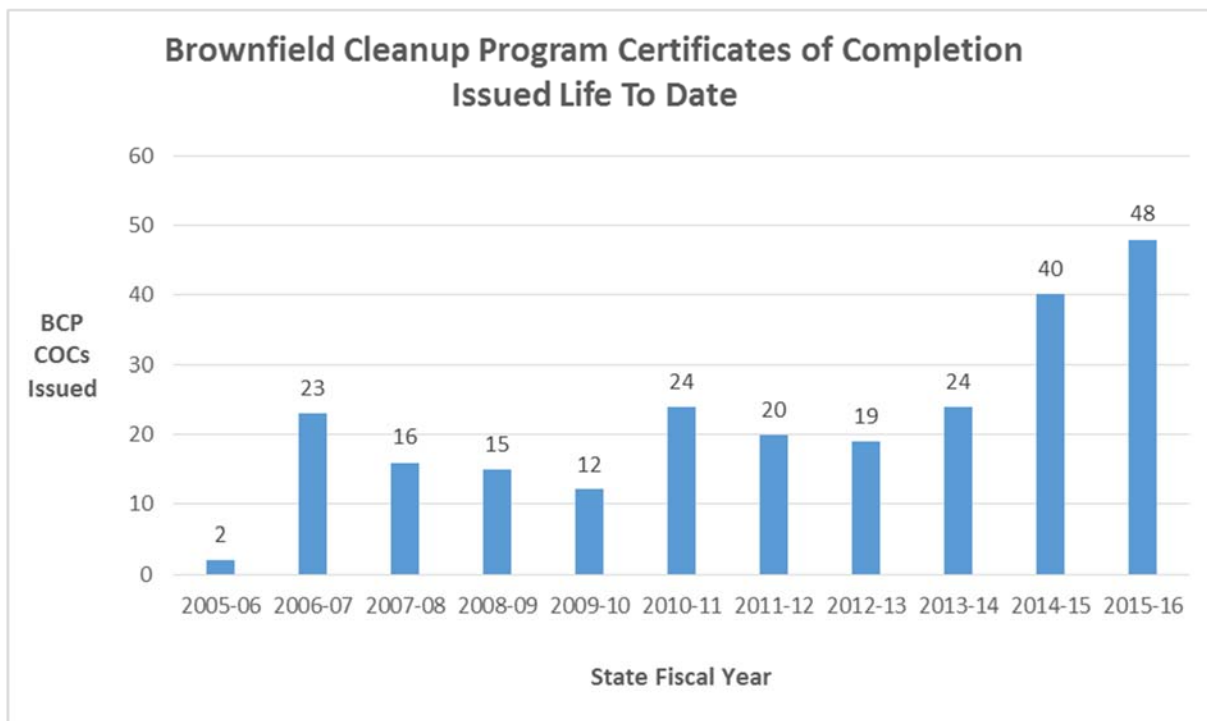
<sup>1</sup> Active sites are sites with approved BCP applications that have not yet received a COC and that have not withdrawn or been terminated from the BCP. A listing of active BCP sites can be searched in the [Environmental Site Remediation Database](#), available on the DEC website.

## BCP CERTIFICATES OF COMPLETION

An annual information session for BCP parties has been held at the beginning of each SFY since 2009. This ensures that the parties that seek a COC for a site issued prior to the end of the calendar year understand the requirements and the time frame for their completion. The session provides an overview of the technical and legal requirements of the COC process, and a recommended schedule for the completion of those requirements in order to receive a COC by the end of the calendar year.

In SFY 2015/16, DEC issued 48 COC's to BCP projects located across the state bringing the total for the life of the program up to 243. This is the highest number of COC's issued in any calendar year since the program's inception.

Chart 3



**BCP COC Trend:** A COC is issued to Brownfield Cleanup Agreement (BCA) parties once the State determines that all technical and legal requirements under the BCA have been met. It takes approximately 3 years to complete a BCP remedial program. The spike in COCs in 2006-2007 is the result of 2006 being the first year BCP tax credits could be claimed. The increases which began in 2010-2011 can be attributed in part to the COC annual information session initiative described above. In SFY 2014/2015, a new record number of 48 COCs were issued, in part due to the result of developers' desire to qualify for tax credits under existing criteria, before the effective date of changes adopted in 2016.

Table 5

BCP Certificates of Completion By Region and Allowable Uses <sup>1</sup> as of March 31, 2016								
DEC Region	Counties	Unrestricted	Residential	Restricted Residential <sup>2</sup>	Commercial	Industrial	Multiple Uses Allowed	Total
1	Nassau, Suffolk	2	0	1	3	0	0	6
2	Kings, Bronx, Queens, New York, Richmond	23	2	44	10	1	1	81
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	4	0	22	16	0	0	42
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	0	0	0	2	1	1	4
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	0	0	0	1	0	0	1
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	0	0	0	3	1	0	4
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	0	1	2	14	0	1	18
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	0	0	9	11	7	0	27
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	2	6	13	31	8	0	60
<b>Totals</b>		<b>31</b>	<b>9</b>	<b>91</b>	<b>91</b>	<b>18</b>	<b>3</b>	<b>243</b>
<b>Percent by Allowable Use</b>		<b>12.8%</b>	<b>3.7%</b>	<b>37.4%</b>	<b>37.4%</b>	<b>7.4%</b>	<b>1.3%</b>	<b>100%</b>

<sup>1</sup> For more information and criteria for each "allowable use", see 6 NYCRR Subpart 375-6.

<sup>2</sup> Most of these "restricted residential" COCs are "Track 4," which means site-specific information and guidance are used to identify soil cleanup objectives to achieve a restricted-use remedy.

Table 6

BCP Certificates of Completion By Region and Cleanup Track <sup>1</sup> as of March 31, 2016							
DEC Region	Counties	Track 1	Track 2	Track 3	Track 4	Track 5	Total
1	Nassau, Suffolk	2	1	0	3	0	6
2	Kings, Bronx, Queens, New York, Richmond	20	5	0	53	3	81
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	4	2	0	36	0	42
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	0	0	0	4	0	4
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	0	0	0	1	0	1
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	0	0	0	4	0	4
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	0	1	0	17	0	18
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuylar, Seneca, Steuben, Wayne, Yates	0	4	0	23	0	27
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	2	22	0	36	0	60
<b>Totals</b>		<b>28</b>	<b>35</b>	<b>0</b>	<b>177</b>	<b>3</b>	<b>243</b>
<b>Percentage by Cleanup Track</b>		<b>11.6%</b>	<b>14.4%</b>	<b>0%</b>	<b>72.8%</b>	<b>1.2%</b>	<b>100%</b>

<sup>1</sup> For the description and criteria for "cleanup tracks" see [6 NYCRR Subdivision 375-3.8\(e\)](#).

## BCP SITES IN ENVIRONMENTAL ZONES

If at least 50 percent of the area of a BCP site is located in a designated Environmental Zone (En-Zone), the BCP site is eligible for additional BCP tax credits. In order to be designated as an En-Zone, the census tract must have a poverty rate of 20 percent and unemployment rate at least 1.25 times the statewide unemployment rate. A site can also qualify if it has a poverty rate at least double the rate for the county in which the tract is located if it also was the subject of a Brownfield Cleanup Agreement entered into prior to September 1, 2010. Ninety of the 243 sites that received BCP COCs are within En-Zones.

## BROWNFIELD CREDIT REPORT

Chapter 390 of the Laws of 2008 requires the New York State Department of Taxation and Finance (NYSDF) to produce a *Brownfield Credit Report* (Tax Law § 171-r) by January 31st of each year. In addition, all developers and their lessees are required by law (Tax Law § 171-s) to submit a brownfield redevelopment report within one year after the execution of a Brownfield Cleanup Agreement and annually for 11 years thereafter. These reports can be found on the [NYSDF website](#).

## ENVIRONMENTAL RESTORATION PROGRAM

### PROGRAM STATISTICS

	SFY 2015/16	LTD <sup>1</sup>
Number of active sites as of 3/31/2016	<b>68</b>	
Number of sites completed <sup>2</sup>	<b>11</b>	<b>108</b>
Total acreage associated with completed sites <sup>2</sup>		<b>502</b>
Cost recovery revenue received during SFY	<b>\$1.8 million</b>	

<sup>1</sup> Life to Date as of 3/31/2016.

<sup>2</sup> Completed sites are Class C sites on the site database.

### PROGRAM DESCRIPTION

**Statutory Authority:** ECL Article 56, Title 5      **Regulation:** 6 NYCRR Subpart 375-4

The Environmental Restoration Program (ERP) was authorized under the 1996 Clean Water/Clean Air Bond Act. The ERP authorized the State to provide eligible municipalities reimbursement, under a State Assistance Contract (SAC), of up to 90 percent of eligible on-site costs and 100 percent of eligible off-site costs, for the investigation and remediation of eligible ERP sites. The investigations and remediation are carried out by the municipality under State oversight. Recent legislative reforms will allow the DEC, upon request, to undertake the project on behalf of the municipality. Parties to the ERP SAC are indemnified by the State for all contamination that existed on the site prior to its being accepted into the ERP.

**New York Works II Funding:** In response to a DEC request for applications, thirteen municipalities across the state will receive funding to clean up brownfield sites they own for redevelopment under Governor Cuomo's 2013/14 New York Works capital infrastructure program. The \$12 million in funding identified will be used to complete ERP remediation projects for sites with a DEC-approved Record of Decision (ROD) that had been awaiting the availability of ERP funding. All of the 13 municipalities have signed agreements with DEC. Under these agreements DEC will undertake the remediation work directly with the municipality paying ten percent of project costs.

**Program Funding:** DEC stopped accepting new applications for the ERP in 2008 due to a lack of funding. Remediation of 108 ERP sites has been completed, 68 sites remain active in various stages of remediation and require close-out. Thirteen of the active sites are being addressed with the \$12 million appropriation for environmental restoration projects under the 2013 New York Works Round II (NYWII) statewide capital infrastructure program. Additionally, the 2015/16 State budget included a provision allowing up to \$10 million a year (of the \$100 million SSF appropriation) to be used to fund a revitalized ERP for the next ten years. This funding will serve a critical need including addressing the backlog of sites where the investigation is complete and cleanup has been identified as needed.

Approximately \$177.7 million of the \$200 million authorized under the 1996 Clean Water/Clean Air Bond Act for the ERP has been committed. As of March 31, 2016, only \$2.3 million remained available to complete projects already underway. Access to a remaining \$20 million portion of the \$200 million is tied to a legislative/gubernatorial Memorandum of Understanding (MOU) which must be executed before these funds can be accessed. This MOU, along with the new funding identified above, will be critical in addressing the remaining backlog of ERP projects for sites currently in the program with approved cleanup plans (Records of Decision) or which will soon have approved plans that are not being addressed with the New York Works funding.

For additional details on recent ERP reforms, program funding and when DEC will begin accepting future applications, see the ERP web page:

<http://www.dec.ny.gov/chemical/8444.html>.

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## THE REMEDIAL PROCESS

Since the remedial program for an ERP site can take a number of years to complete, DER tracks progress by the number of sites completed, as well as by the number of major remedial elements (projects) started and completed for a site. The major ERP remedial elements are remedial investigation/feasibility study, remedial design, remedial action, and interim remedial measure.

**Table 7**

ERP Remedial Project Starts/Completions as of March 31, 2016				
Remedial Element	Starts		Completions	
	SFY 2015/16	Life to Date	SFY 2015/16	Life to Date
Remedial Investigation	0	233	7	195
Remedial Design	8	66	4	58
Remedial Action	3	63	4	49
Interim Remedial Measure	3	95	9	92

Table 8

ERP Active Sites by DEC Region as of March 31, 2016			
DEC Region	Counties	ERP Active Sites <sup>1</sup>	Percentage of Total
1	Nassau, Suffolk	5	7.4%
2	Kings, Bronx, Queens, New York, Richmond	1	1.5%
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	6	8.8%
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	10	14.7%
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	5	7.4%
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	12	17.6%
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	14	20.6%
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	9	13.2%
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	6	8.8%
<b>Totals</b>		<b>68</b>	<b>100%</b>

<sup>1</sup> Active sites are sites with approved ERP applications that are not completed and that have not withdrawn or been terminated from the ERP. Active sites can be searched in the [Environmental Site Remediation Database](#).

## VOLUNTARY CLEANUP PROGRAM

### PROGRAM STATISTICS

	SFY 2015/16	LTD <sup>1</sup>
Number of applications received	0	907
Number of applications approved	0	752
Number of applications ineligible, withdrawn, or terminated	0	155 <sup>3</sup>
Number of active sites as of 3/31/2016		159
Number of sites completed <sup>2</sup>	12	255
Cost recovery revenue received during SFY	\$0.9 million	

<sup>1</sup> Life to Date as of 3/31/2016.

<sup>2</sup> Completed sites are Class C sites.

<sup>3</sup> Includes transfers to BCP.

### PROGRAM DESCRIPTION

**Statutory Authority:** Non-Statutory - Administrative Program

**Regulations:** N/A

DEC established an administrative Voluntary Cleanup Program (VCP) in 1994 to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated brownfield sites.

The VCP was developed to enable private parties to investigate and remediate brownfield sites using private rather than public funds, under the oversight of DER. The VCP party must reimburse the State for its oversight costs. If the party is also determined to be an RP, then it must also reimburse the State for any other site-related remedial costs the State incurred before the site became a VCP site.

Applications for the VCP have not been accepted by DER since the inception of the Brownfield Cleanup Program. However, sites in the VCP continue to be addressed. Once the cleanup is completed, DEC provides the volunteer a release from potential liability to DEC for further investigation and/or remediation of the contaminants identified and addressed under the Voluntary Cleanup Agreement.

## THE REMEDIAL PROCESS

Since the remedial program for a VCP site can take a number of years to complete, DER tracks progress by the number of sites completed, as well as by the number of major remedial elements (projects) started and completed for a site. The major remedial elements in the VCP are remedial investigation, remedial design, remedial action, and interim remedial measure.

**Table 9**

VCP Remedial Project Starts/Completions as of March 31, 2016				
Remedial Element	Starts		Completions	
	SFY 2015/16	Life to Date	SFY 2015/16	Life to Date
Remedial Investigation	4	400	9	269
Remedial Design	9	216	10	194
Remedial Action	7	319	7	243
Interim Remedial Measure	2	126	0	105

**Table 10**

VCP Active Sites by DEC Region as of March 31, 2016			
DEC Region	Counties	VCP Active Sites <sup>1</sup>	Percentage of Total
1	Nassau, Suffolk	26	16.4%
2	Kings, Bronx, Queens, New York, Richmond	50	31.4%
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	31	19.5%
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	9	5.7%
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	5	3.1%
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	7	4.4%
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	7	4.4%
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	19	12.0%
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	5	3.1%
<b>Totals</b>		<b>159</b>	<b>100%</b>

<sup>1</sup> Active sites are sites with approved applications that are not completed and that have not withdrawn or been terminated from the VCP. Active sites can be searched in the [Environmental Site Remediation Database](#).

## SPILL RESPONSE PROGRAM

### PROGRAM STATISTICS

Number of spill incidents reported during SFY 2015/2016:	<b>State funded: 435</b>
	<b>RP<sup>1</sup> funded: 11,967</b>
	<b>Total spills: 12,402</b>
Number of spill incidents closed during SFY 2015/2016:	<b>State funded: 481</b>
	<b>RP<sup>1</sup> funded: 12,207</b>
	<b>Total spills closed: 12,688</b>
Number of open spills as of 3/31/2016:	<b>State funded: 1,015</b>
	<b>RP<sup>1</sup> funded: 9,759</b>
	<b>Total open spills: 10,774</b>

<sup>1</sup>Responsible Party (RP)

### PROGRAM DESCRIPTION

**Statutory Authority:** Navigation Law, Article 12; ECL, Article 37

**Regulations:** 6 NYCRR Part 610, Portions of 6 NYCRR 595-597 and 613

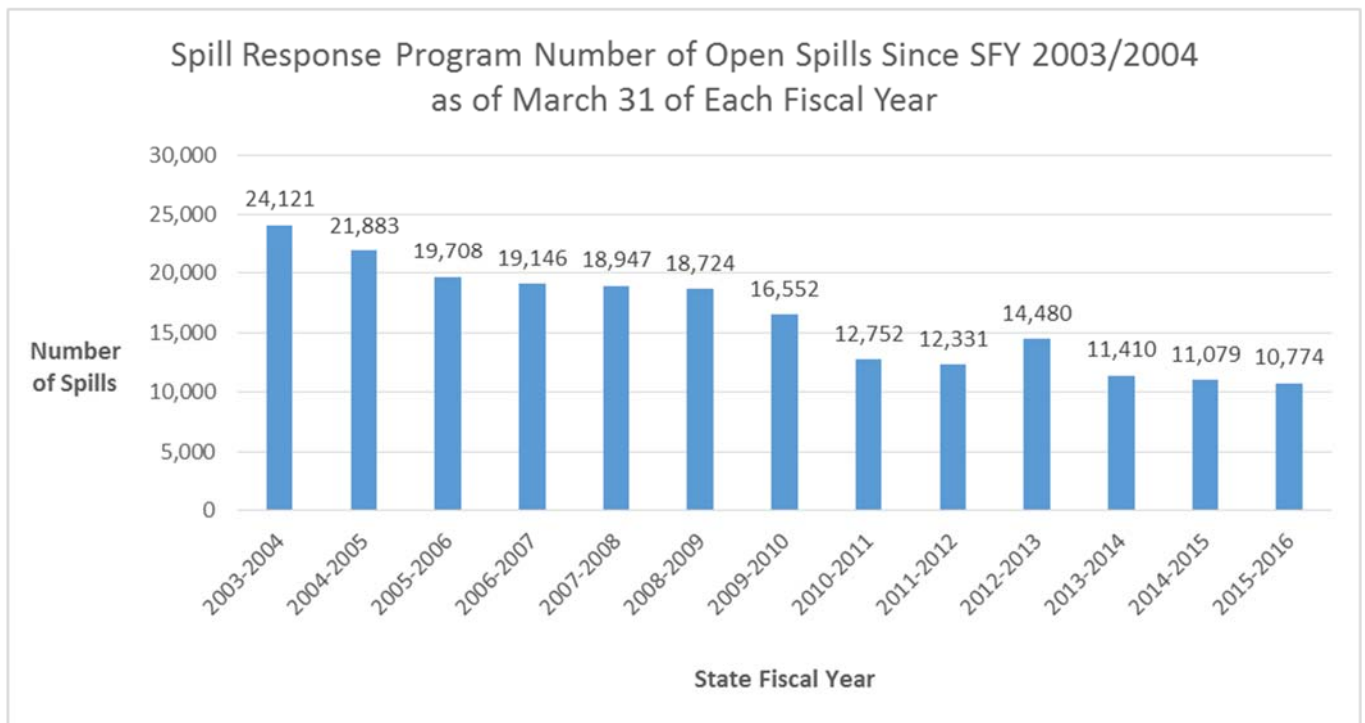
The goal of the Spill Response Program is to protect public health and the environment by ensuring a timely and appropriate response to spills and unauthorized discharges of contaminants, and by investigating and remediating such incidents. DEC operates a 24-hour Spill Hotline for receiving notification of incidents. DER staff promptly respond to significant known and suspected releases reported to the hotline 24 hours a day, 7 days a week.

Federal and State law require the RP to notify government agencies of unauthorized spills and discharges and to respond, contain, clean up, and dispose of any contaminated material. Approximately 97 percent of incidents are addressed by responsible parties under DER oversight. When the RP is not known, or unable or unwilling to perform an adequate cleanup, DER uses State-funded standby contracts to address the incident

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under DER direction. If State funds are used to address the incident, the State will identify and take legal action against any RP for reimbursement of State costs. The Spill Response Program is a cooperative effort of DEC, the Office of the State Comptroller, which oversees the New York State Environmental Protection and Spill Compensation Fund, and the New York State Department of Law, which pursues recovery of State costs.

**Chart 4**



**Open Spills Trend:** DER has had an ongoing initiative to reduce the number of open spills. Thousands of open spills have been evaluated to determine the appropriate actions needed to eventually close them out. When DEC undertook the initiative in January 2003, there were 32,948 open spills in New York State. Note that the increase in spills during the 2012/2013 State Fiscal Year was due to 4,875 spills caused by Hurricane Sandy.

Table 11

Spill Incidents Reported and Those Closed During SFY 2015/2016 by DEC Region and County					
DEC Region	Counties	Spill Incidents			
		Reported	Percent of Total Reported	Closed	Percent of Total Closed
1	Nassau, Suffolk	1,792	14.4%	1,770	14.0%
2	Kings, Bronx, Queens, New York, Richmond	1,926	15.6%	2,188	17.2%
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	3,359	27.1%	3,455	27.2%
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	1,079	8.7%	1,019	8.0%
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	805	6.5%	827	6.5%
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	619	5.0%	529	4.2%
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	968	7.8%	947	7.5%
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	934	7.5%	1,000	7.9%
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	920	7.4%	953	7.5%
<b>Total</b>	<b>All Counties</b>	<b>12,402</b>	<b>100%</b>	<b>12,688</b>	<b>100%</b>

#### CRUDE OIL RAIL SAFETY – EXECUTIVE ORDER 125

The increased production of crude oil from the Bakken Oil Fields in North Dakota has resulted in a major increase in the use of railways to transport oil through states including New York. In response to the significant increase in crude transport by rail and ship through New York, Governor Cuomo issued Executive Order 125 (EO-125). EO-125 directed several State agencies, including DEC, to complete a comprehensive review of safety procedures and emergency response preparedness related to the shipment of crude oil through New York. DER staff worked with the New York State Division of Homeland Security and Emergency Services (DHSES), the New York State Department of Transportation, and others to assess and strengthen the State's capacity to prevent and respond to accidents involving the transport of crude and other petroleum products

by rail, ship, and barge. The resulting report, issued in April 2014, identifies potential risks and makes 27 specific recommendations for federal and state government and industry to reduce risks and increase safety in the transport of crude oil. In addition, the state has taken a number of other actions to better prepare the state and local responders in the event of a crude oil incident.

In response to one of the recommendations in the 2014 report, DER continues to work with federal, state, and local emergency response partners to develop Geographic Response Plans (GRPs) as a key component of New York's preparedness tools in the event of a significant spill of crude oil in one of the Crude-by-Rail (CBR) corridors across the state. The GRPs identify sensitive resources in the CBR corridors (e.g., wetlands, potable water intakes) and response tactics to use in the event of a spill (e.g., rapid deployment of spill boom in a river to divert spilled oil away from a wetland). As part of the development of GRPs, DER intends to use resources from the new state budget to pre-deploy spill response equipment, train local responders, and hold periodic drills.

DER designed and optimized its initial "Pilot" Emergency Spill Response trailer and plans are being developed to train local responders, and hold periodic drills to exercise the Geographic Response Plans and equipment. DER staff have met with all county emergency response managers along the CBR corridors to discuss GRP development and solicit their input. To date, DER has developed, reviewed and distributed back to county emergency managers over 150 site-specific GRPs. DER continues to participate in regular interagency crude oil working group meetings with USEPA, United State Coast Guard (USCG), NYSDOH, NYSDOT, and NYSDHSES. The GRPs will complement similar work being done with the USCG to update the Area Contingency Plans and GRPs that address coastal areas including the Hudson River estuary.

## BULK STORAGE PROGRAMS

### PROGRAM STATISTICS<sup>1</sup>

Number of active Petroleum Bulk Storage (PBS) Facilities: **45,294** and Tanks: **107,359**

Number of PBS registrations processed during SFY 2015/2016: **5,623**

Number of active Major Oil Storage Facilities (MOSFs) On-Shore: **160** Vessels: **175** and Tanks: **2,895**

Number of On-Shore MOSF Licenses issued: **48** Vessel Licenses issued during SFY 2015/2016: **11**

Number of active Chemical Bulk Storage (CBS) Facilities: **1,342** and Tanks: **4,475**

Number of CBS Registrations processed during SFY 2015/2016: **755**

<sup>1</sup> As of 3/31/2016 unless otherwise noted.

### PROGRAM DESCRIPTION

**Statutory Authority:** Petroleum Bulk Storage (PBS) Program: ECL Article 17, Title 10; Major Oil Storage Facilities (MOSF) Program: Navigation Law Article 12, ECL Article 17, Title 10; Chemical Bulk Storage (CBS) Program: ECL Articles 37 and 40; Liquefied Natural Gas (LNG): ECL Article 23, Title 17.

**Regulations:** PBS Program: 6 NYCRR Parts 612, 613, 614; MOSF Program: 6 NYCRR Parts 610, 613, 614, 17 NYCRR Parts 30, 31, and 32; CBS Program: 6 NYCRR Parts 595-599; Liquefied Natural Gas Program: 6 NYCRR Part 570; Federal Underground Storage Tank (UST) Program: 40 CFR Part 280.

The goal of the Bulk Storage Programs is to prevent unauthorized discharges from petroleum, chemical and LNG bulk storage. Registration (PBS and CBS), licensing (MOSF), permitting (LNG), tank testing and closures, and inspections are some of the mandates that DER performs under these programs. The Bulk Storage Programs include the Petroleum Bulk Storage (PBS) Program, Major Oil Storage Facility (MOSF) Program, Chemical Bulk Storage (CBS) Program and Liquefied Natural Gas (LNG) Program.

**Petroleum Bulk Storage Program:** Generally, the PBS Program applies to all tanks at any facility with either an underground storage tank greater than 110 gallons or a cumulative storage capacity of more than 1,100 gallons but less than 400,000 gallons.

Exclusions are available for certain tanks used to store heating oil for on-premises consumption and for certain non-commercial motor fuel tanks at a farm or residence. Tanks must be registered and registrations must be renewed every five years. A registration fee is required at the time of registration. Five counties (Nassau, Suffolk, Westchester, Rockland, and Cortland) have been delegated authority to administer the PBS Program.

**Major Oil Storage Facilities Program:** The MOSF Program applies to all tanks at petroleum storage facilities and vessels with a cumulative storage capacity of 400,000 gallons or more. Vessels are regulated if they receive transfers of petroleum from another vessel. Generally, MOSF facilities are subject to license fees and surcharges of 12.25 cents per barrel when the petroleum is first received within the State. Licenses are renewed every one to five years depending on the conditions at the facility.

**Chemical Bulk Storage Program:** The CBS Program applies to any aboveground tank with a capacity of 185 gallons or more of a hazardous substance, all underground tanks storing a hazardous substance regardless of capacity, and non-stationary tanks used to store 1,000 kilograms (2,200 pounds) or more of a hazardous substance for 90 consecutive days or more. Stationary tanks must be registered and registrations must be renewed every two years. A fee is required at registration.

**Federal Underground Storage Tank Program:** The Federal UST Program applies to any underground tank within the PBS, CBS, and MOSF Programs with the exception of tanks used to store heating oil for on-premises consumption and for certain non-commercial motor fuel tanks at a farm or residence.

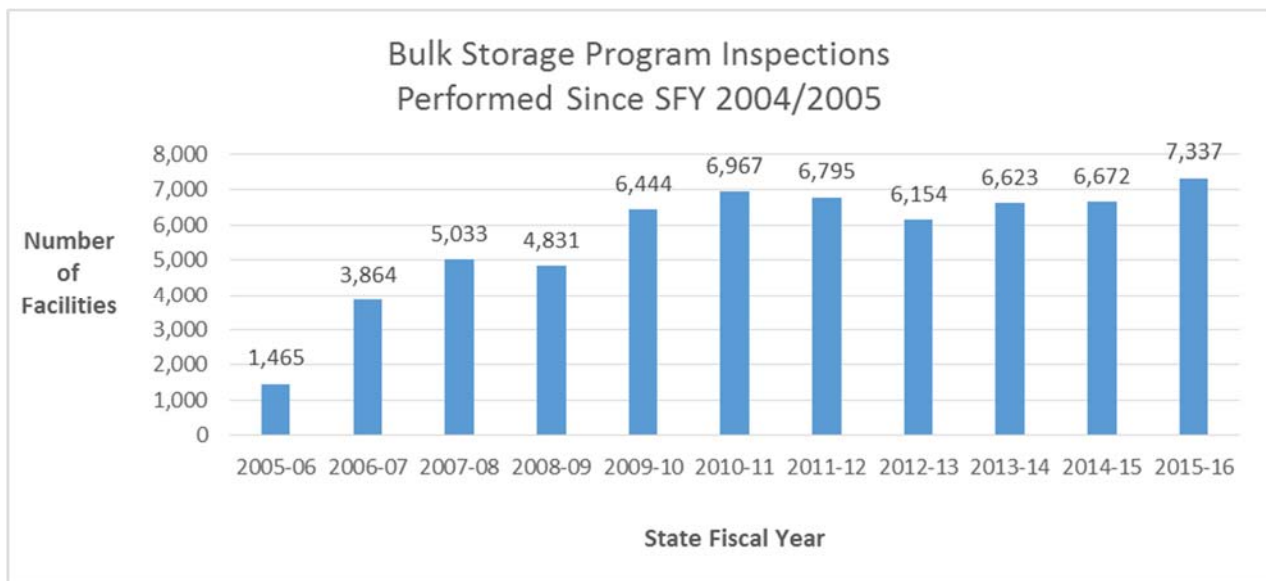
**Liquefied Natural Gas (LNG) Program:** The LNG Program establishes a permitting process for the safe siting, construction, and operation of liquefied natural gas (LNG) facilities in New York State as required by Article 23, Title 17 of the Environmental Conservation Law and implemented under 6 NYCRR Part 570. LNG facilities are those that either store LNG in a tank system or convert LNG into natural gas through vaporization. Part 570 also addresses the transportation of LNG including the statutory requirement that intrastate transportation occur only along approved routes. Before issuing an LNG facility permit, DEC must determine if the proposed facility, including the tank systems, equipment, location, operating procedures, and transportation

procedures, meets the requirements of Part 570. To date there have been no LNG permit applications.

Breakdown of Inspections by Bulk Storage Program Since SFY 2004/2005				
SFY	PBS	CBS	MOSF	Total
2004/05	705	91	57	853
2005/06	1,448	13	4	1,465
2006/07	3,706	66	92	3,864
2007/08	4,818	121	94	5,033
2008/09	4,710	82	39	4,831
2009/10	6,263	101	80	6,444
2010/11	6,696	199	72	6,967
2011/12	6,487	203	69	6,759
2012/13	5,803	267	84	6,154
2013/14	6,246	297	80	6,623
2014/15	6,313	279	80	6,672
2015/16	7,047	226	64	7,337

Table 12

Chart 5



Inspection Trend: Since SFY 2006/07 there has been an initiative to inspect federally regulated PBS facilities every three years in order to be in compliance with the federal Energy Policy Act of 2005, which is a requirement to continue to receive federal UST grant funding from USEPA.

## MAJOR PROGRAM INITIATIVES

### **Bulk Storage and Used Oil Rulemakings (6 NYCRR Parts 595-599; 612-614; and, 370, 374-2):**

The process to update the petroleum and chemical bulk storage management of used oil (PBS, CBS and used oil) regulations has been completed with adoption of the Phase I regulations occurring on September 11, 2015 with PBS and CBS amendments effective on October 11, 2015 and used oil amendments effective date November 10, 2015. To allow for 2015 changes adopted in the federal regulations, DEC's rulemakings are being handled in two phases. In the first phase, the PBS and CBS regulations were revised to incorporate existing federal requirements in regulations (40 CFR Part 280) and in law (the Energy Policy Act of 2005), consolidate some regulations, and clarify other existing requirements. The PBS regulations (Parts 612-614) were repealed, consolidated, revised, and reissued as a new Part 613. Parts 595 and 597 of the CBS regulations were repealed. Part 597 was reissued and included minor revisions to the list of hazardous substances to reflect changes in the federal regulation (40 CFR Part 302). Parts 596, 598, and 599 were revised to incorporate the requirements of existing Part 595, to reflect existing federal requirements not yet in State regulations, and to clarify existing State requirements.

DEC is authorized to implement and manage the federal used oil program under the Resource Conservation and Recovery Act (RCRA). Some of DEC's used oil management regulations are included in 6 NYCRR Subpart 374-2. Since "used oil" is a form of petroleum also regulated under the PBS regulations in 6 NYCRR Part 613, it was necessary to revise Subpart 374-2 to make changes to cross references to Part 613, update it with federal changes, and provide clarification with regard to the delivery prohibition requirements. In addition, 6 NYCRR Part 370.1(e)(2)(vi) was modified to adopt newer versions of the federal regulations just for the purposes of the regulations for Used Oil Management and to be consistent with the federal Used Oil regulation (40 CFR Part 279).

In addition, DEC released for public comment a Program Policy (DER-40) that explains how the operator training program and exam required by the regulations will be implemented. A pilot of the operator training exam was successfully completed in April 2015. Approximately 200 volunteers completed the pilot exam which was held at 11

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locations across the state. The pilot provided an opportunity for DEC to validate the exam questions and to test the newly developed online application for administering the exam. Subsequently DEC analyzed the results using an exam review committee comprised of DEC staff, industry representatives, and consulting specialists who provide expertise in the design, administration, and review of exams.

With the adoption of the Phase I regulations completed, Phase II of the rulemaking process is anticipated to begin in SFY 2016-2017. In Phase II the State regulations will again be revised to reflect new requirements on the federal level and will include any additional requirements deemed necessary by DEC. Significant opportunities for public comment will occur before any substantive new bulk storage requirements go into effect as a result of Phase II of this rulemaking process.

#### **Application of the Lean Process to PBS Inspections:**

**Application of the Lean Process to PBS Inspections:** DER has continued implementation of the PBS Lean project which identified three key changes to the inspection process including: 1) pre-announcing inspections more frequently to reduce delays caused by facilities not having the needed documents and/or staff on hand for an inspection; 2) revising processes so that the result of an inspection is issued more quickly to the facility owner (i.e., within 30 days); and 3) changing processes to prevent any overdue inspections at facilities also subject to federal regulation under 40 CFR Part 280. During this year, staff kept the overall rate of announcing inspections within the target range and 99.7% of compliance determinations were completed within 30 days of the inspections. The number of overdue federal-facility inspections fluctuated from no overdue inspections in October 2015 to 17 inspection being overdue at the end of March, 2016.

## HAZARDOUS WASTE MANAGEMENT PROGRAM

### PROGRAM STATISTICS

Number of Operating Hazardous Waste Treatment, Storage or Disposal Facilities as of 3/31/2016: **25**

Number of Hazardous Waste Facilities Subject to Corrective Action as of 3/31/2016: **279**

Number of Hazardous Waste Facility Inspections Completed during SFY 2015/2016: **717**

### PROGRAM DESCRIPTION

**Statutory Authority:** ECL Article 3, Title 3; Article 27, Titles 1, 7, 9 and 11; Article 70; Article 71, Titles 25 and 35

**Regulations:** 6 NYCRR Parts 370 - 374 and 376

Under the Hazardous Waste Management Program, the State regulates all aspects of hazardous waste management in the State, including: generators, and treatment, storage, and disposal (TSD) facilities. DEC's Hazardous Waste Management Program implements the federal Resource Conservation and Recovery Act Subtitle C (RCRA-C) Program, which is delegated to New York State by USEPA. The delegation agreement outlines the State's responsibilities. Annual funding is provided by USEPA in the form of a grant which is based on an annual work plan detailing the commitments DEC will achieve.

DER conducts inspections and enforcement at all categories of hazardous waste facilities and handlers, and tracks hazardous waste from its point of generation through final disposition using the facility permit process, the hazardous waste manifest system, and annual reports submitted by generators and hazardous waste facilities. DER also administers regulatory hazardous waste fees, special assessment taxes and the Used Oil Regulatory Program. The transportation of hazardous waste and other regulated waste is regulated under the Waste Transporter Permit Program which is overseen by DEC's Division of Materials Management.

## THE REMEDIAL PROCESS

Corrective action activities under the RCRA-C Program are similar to the activities in the other remedial programs (i.e., starts and completions of remedial elements); however, the accomplishments are tracked differently by USEPA. For the purposes of this report, DER has included key environmental indicators used by USEPA in the RCRA-C Program to track accomplishments.

**Table 13**

Corrective Action Accomplishments for SFY 2015/2016 USEPA Environmental Indicators		
USEPA Event Code	Description	Accomplishments
CA 550	Corrective Measure Implementation - Construction Complete	10
CA 725	Human Exposure Controlled	13
CA 750	Groundwater Releases Controlled	12

## HAZARDOUS WASTE FACILITY PERMIT PROCESS

Another key activity DER performs is the issuance of hazardous waste facility permits (i.e., new, renewal, modification). DER issues various types of permits (i.e., operating, post-closure, corrective action) related to hazardous waste TSD facilities (TSDFs). Facilities requiring only a post-closure or corrective action may also be addressed by the use of a consent order, which is DEC's preference.

In 2015/16, DEC issued or renewed permits at Safety Kleen (Cohoes), MPM Silicones LLC (Waterford), Norlite (Cohoes) and Rochester Gas and Electric (Rochester). Also, the major permit modification and siting board certificate review for Chemical Waste Management (Model City) to build a new hazardous waste landfill at their site commence the permit hearing. Following a legislative hearing and the solicitation of public comments, four entities applied for party status and submitted issues to be considered for adjudication. An issues conference involving a Facility Siting Board was held in April 2015. The Administrative Law Judge will rule on issues for adjudication and if the ruling identifies significant or substantive issues, then an adjudicatory hearing will be scheduled.

Permits expected to be issued or renewed in 2016/17 include: CECOS (Niagara Falls).

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## HAZARDOUS WASTE COMPLIANCE INSPECTIONS

To ensure that hazardous wastes are managed properly by generators, permitted TSDFs, and TSDFs under order of consent, periodic inspections are completed to determine compliance with the regulations and any permit conditions. Compliance requirements are tailored to the type of facility and the wastes handled. Inspections are completed by trained and certified RCRA inspectors. When violations are observed, enforcement actions are taken to get the facility into compliance. Penalties are levied as appropriate and in accordance with enforcement regulations and guidance.

## ANNUAL HAZARDOUS WASTE SITING PLAN REVIEW

Environmental Conservation Law § 27-1102(2)(i), as implemented by Chapter 8 of the 2010 Hazardous Waste Facility Siting Plan (the Plan), required DEC to initially complete a Plan which assesses the availability of sufficient hazardous waste disposal capacity nationally to address the State's needs, and then complete an annual review of the Plan to determine if it needs to be updated.

**Specifically, Chapter 8 includes the following recommendations for the future updating of the Siting Plan:**

- As part of the annual Siting Plan review, DEC will evaluate business changes in the State impacting hazardous waste management using all available information sources, including analysis of hazardous waste annual reports and manifest data. The Plan will be updated as necessary if:
  - a USEPA assessment identifies a current or projected shortfall in national hazardous waste management capacity, including the impact of the addition of newly regulated hazardous waste streams; or
  - changes in interstate or international transport law allow limitations on the transportation of hazardous waste. For example, Congress might choose to enact legislation giving states the authority to ban or limit the import of hazardous waste. Such legislation has been proposed for solid waste and was enacted many years ago for low level radioactive wastes;
  - in DEC's annual review, it concludes that there is a trend showing a significant increase in State hazardous waste generation over time or

- changes in required management methods that would increase the need for additional management capacity; or
- in DEC's annual review, it identifies a significant decrease in commercial hazardous waste treatment or disposal capacity or required management methods without capacity available elsewhere in the nation.

**Based on the annual review, DEC has determined that:**

- The USEPA analysis presented in the March 25, 2015 "Updated Statement of National Capacity Language for Superfund Contracts and Remedial Cooperative Agreements" memorandum states that there remains adequate national capacity in all management categories through December 31, 2039.
- Interstate and international transport law has not changed in such a way that the present Plan is impacted.
- New York State hazardous waste generation and management have not changed significantly from what was anticipated and presented in the Plan.
- No significant change in national commercial hazardous waste treatment or disposal capacity has been identified. Using 2013 National Biennial RCRA Hazardous Waste data, approximately 282,991 tons of hazardous waste was landfilled in hazardous waste landfills located in the northeast quarter of the United States. The Plan assumed 850,000 tons per year in determining that hazardous waste land disposal capacity for this region was available through at least 2028. Considering the 2013 National Biennial RCRA Hazardous Waste data, the conclusion that hazardous waste land disposal capacity exists through at least 2028 remains accurate.

**As a result of this review, DEC has concluded that the existing 2010 Hazardous Waste Facility Siting Plan remains accurate and does not need to be updated.**

**ANNUAL REPORT OF HAZARDOUS WASTE GENERATION**

ECL § 27-0907(7) requires the submittal of an annual report to the Governor and the Legislature which:

- identifies the generators of hazardous waste within the State; and
- provides the quantities, composition and disposition of hazardous waste, presented in aggregated form by waste type and by DEC region.

Information is submitted annually to DEC from large quantity generators (LQGs) which provides the basis of the report required by statute.

LQGs are facilities that meet any of the following criteria:

- in any single month, 1,000 kg (2,200 lbs.) or more of hazardous waste is generated; or
- in any single month, or accumulated at any time, 1 kg (2.2 lbs.) of acute hazardous waste is generated; or
- at any time, more than 100 kg (220 lbs.) of spill cleanup material contaminated with acute hazardous waste is generated or accumulated.

Table 14

Hazardous Waste Generation in New York State in Calendar Year 2014					
DEC Region	Number of LQGs	Hazardous Waste Managed On-Site (tons)		Hazardous Waste Shipped Off-Site (tons)	
		Wastewater	Non-Wastewater	Wastewater	Non-Wastewater
<b>1</b>	315	57,369.15	217.12	592.13	5,046.18
<b>2</b>	3,264	66,049.26	168.03	453.78	39,801.32
<b>3</b>	289	890,839.40	68,549.29	5,429.70	13,621.51
<b>4</b>	139	771,514.20	206,442.23	188.17	9,957.48
<b>5</b>	81	18,167,737.47	12,187.05	12.02	541,216.50
<b>6</b>	66	278,915.91	543.20	0.85	160,268.36
<b>7</b>	168	505,333.92	56,707.86	15.30	21,453.66
<b>8</b>	206	6,117,552.37	6,447.45	196.33	10,544.15
<b>9</b>	250	2,206,558.69	10,745.69	50,984.45	53,542.89
<b>Total</b>	<b>4,778</b>	<b>29,061,870.37</b>	<b>362,007.92</b>	<b>57,872.73</b>	<b>855,452.05</b>

Tables are posted on the DEC website at <http://www.dec.ny.gov/chemical/81881.html>. They provide greater detail of hazardous waste generation in New York State. The tables include the following information for calendar year 2014:

- a listing of the large quantity generators by DEC region;
- the quantity of hazardous waste managed at the site of generation (on-site), statewide and in each DEC region, and how it was managed;
- the quantity of hazardous waste shipped off-site, statewide and from each DEC region, and how it was managed at its destination; and
- the quantity of waste shipped off-site, statewide and from each DEC region, by waste type categories.

#### MAJOR PROGRAM INITIATIVES/ACCOMPLISHMENTS

##### **6 NYCRR Part 370 Series, Hazardous Waste Management Regulations**

On February 4, 2015 a Notice was published in the *Environmental Notice Bulletin* (ENB) announcing the release of a Draft for Public Consideration of revised Hazardous Waste Management regulations for comment by stakeholders. Amendments to Parts 370-373, 376 and subparts 374-1 and 374-3 are included in this rule making, which is referred to as **FedReg5**. It will incorporate, as appropriate, federal rule changes (January 2002 to April 2012) and State-initiated changes, including clarification of language and corrections of errors found in the regulations. The June 26, 2014 Cathode Ray Tube Export rule is also included in this rule making. DEC solicited public comment from stakeholders to identify any major issues to be addressed before the draft regulations are formally proposed.

DEC is also solicited comments on the rulemaking initiative to consider adopting the United States Environmental Protection Agency regulations adopted in 2013 and 2014. This rule making is referred to as **FedReg6** and includes: (1) Solvent-Contaminated Wipes Rule; (2) Carbon Dioxide Sequestration Rule; (3) Electronic Manifest Rule; (4) 2008 Definition of Solid Waste Rule, as amended in December 2014; and (5) possible changes to the State's Used Oil Management regulations (6 NYCRR Subpart 374-2).

**Kodak (Eastman Business Park):** DEC negotiated a bankruptcy settlement requiring Kodak to create and fund a \$49 million trust for site remediation, more than doubling the financial assurance that had been available for this site. Subsequent to the trust creation, DEC assumed operational control of the approximately 35 active remedial systems at Eastman Business Park, and has been performing the required operation, maintenance, monitoring and reporting for these systems. DEC also developed a plan to investigate conditions in the lower Genesee River. This investigation commenced in the summer of 2015, and field activities were completed in December 2015. The investigation report will be prepared in 2016. DEC also created a website for the Eastman Business Park that will be periodically updated to keep the public informed about this project.

## RADIATION PROGRAM

### PROGRAM STATISTICS

Number of Part 380 Active Permitted Facilities as of 3/31/16: **30**

Number of Part 380 Facility Permit Actions<sup>1</sup> Issued during SFY 2015/16: **11**

Number of Part 380 Facility Compliance Inspections Completed during SFY 2015/16: **21**

Number of Part 381 Active Low-Level Radioactive Transport Permits as of 3/31/16: **36**

Number of Part 381 Low-Level Radioactive Transporter Permit Actions<sup>1</sup> during SFY 2015/16: **131**

Number of Active Formerly Utilized Sites Remedial Action Program (FUSRAP) Sites: **6**

<sup>1</sup> “Actions” can be new permits or modifications of existing permits.

### PROGRAM DESCRIPTION

**Statutory Authority:** ECL Articles 1, 3, 17, 19, 27 and 29

**Regulations:** 6 NYCRR Parts 380, 381, 382, and 383

As part of the United States Nuclear Regulatory Commission’s (NRC) National Agreement States Program, the NRC and the Governor of the State of New York entered into an agreement under which the NRC relinquished its authority to regulate a broad range of radioactive materials to the State. This agreement remains in effect so long as the State maintains a regulatory program that is compatible with the NRC program. In addition to DEC, the agencies that are parties to the agreement are the New York State Department of Health (NYSDOH) and New York City Department of Health & Mental Hygiene (NYCDOH&MH). Each administers a portion of the State’s regulatory program. DEC issues permits for the discharge and disposal of radioactive material to the environment and the transportation and disposal of low-level radioactive waste (LLRW). Periodically, the NRC reviews the State’s implementation of the program.

### PREVENTION AND CONTROL OF RADIOACTIVE MATERIALS

**Radiation Control Permits and Inspections:** The discharge and disposal of radioactive material to the environment from operating State-regulated facilities and the issuance of Radiation Control Permits by DER is controlled pursuant to Part 380 regulations.

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Inspections are performed to confirm facility compliance with permit conditions regarding the control, monitoring, and reporting of environmental discharges. Enforcement actions are taken as necessary.

**Low-Level Radioactive Waste (LLRW) Transporter Permits:** Transportation of LLRW into, within or through the State may only be performed by a transporter in possession of a Part 381 LLRW Transport Permit issued by DER. Part 381 regulations set permit standards for transporters, and standards for generators and transporters related to the LLRW manifest system and its recordkeeping requirements. Enforcement actions are taken as necessary.

**LLRW Disposal:** The certification of any proposed new LLRW disposal methods and/or sites would be regulated under Part 382. The design, construction, operation, closure, post-closure and institutional controls for any new disposal facility is subject to regulation under Part 383. Currently there are no active LLRW disposal facilities in the State. However, there are two former radioactive waste disposal sites: the State-licensed Disposal Area (SDA) at West Valley (presently maintained in interim closure status) and the Cornell Radiation Disposal Site (closed under a DEC Consent Order). A Part 380 permit has been issued for the SDA and one is under development for the Cornell site. Inspections are performed on a regular basis to confirm compliance with permit requirements regarding monitoring and maintenance of the secure disposal site.

#### CLEANUP OF RADIOACTIVE CONTAMINATED SITES

**Remedial Activities:** DER provides State oversight for the cleanup of Formerly Utilized Remedial Action Program (FUSRAP) sites that is carried out by the United States Department of Energy under an Agreement with the Department of the Army through the United States Army Corps of Engineers (USCOE). FUSRAP is a remedial program for sites contaminated by radioactive materials which were formerly part of the country's early development of nuclear weapons (primarily under the old Manhattan Engineering District), or which participated in the early development of other nuclear technologies. There are six active sites - Niagara Falls Storage Site, Colonie (NL Industries), Guterl, Tonawanda Landfill, Seaway, and Sylvania. The USACOE finalized the Site Closeout Report for the Linde FUSRAP Site on March 30, 2015. The report documents the implemented removal and remedial activities conducted at the Linde Site between 1997 and 2013, which resulted in nearly 400,000 tons of contaminated material being

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excavated and shipped out of state for disposal. No further response is needed to protect human health and the environment from the FUSRAP-eligible constituents of concern at the Linde FUSRAP Site. In addition, two sites have been identified as eligible and are being considered for inclusion in the program: Staten Island Warehouse and Wolff Alport, which was also recently added to the National Priorities List for action under the Federal Superfund. DER also investigates incidents and allegations of improper transport, disposal, and discharge of radioactive materials and oversees remediation of sites contaminated with radioactive materials.

#### MAJOR INITIATIVES

**Regulations on Prevention and Control of Radioactive Material (Part 380):** The Part 380 Prevention and Control of Environmental Pollution by Radioactive Materials regulation has been revised to be compatible with federal rules on emissions of radioactive material to air and to update and clarify other provisions. The Part 380 notice of proposed rulemaking package is on routing for approval to release for public comment.

**Regulations on Cleanup Criteria for Remediation of Radioactive Contaminated Sites (Part 384):** A new regulation, Part 384 Cleanup of Radioactively Contaminated Sites, is being developed to set cleanup criteria for sites contaminated with radioactive materials. This regulation must be developed to be compatible with federal criteria, and coordinated with companion regulations being developed by the NYSDOH and NYCDOH&MH. Once Part 384 is formally adopted it will supersede existing soil cleanup guidance on the subject.

## OTHER MAJOR INITIATIVES

### TECHNICAL ASSISTANCE GRANTS

Technical Assistance Grants (TAGs) remain available to eligible community groups to obtain independent technical assistance to interpret existing environmental data for the eligible site, comment on the site's remedial activities and proposals, and disseminate this information to the community. Eligible sites are Class 1 and 2 SSF Registry sites and significant threat sites in the Brownfield Cleanup Program (BCP). DER accepts TAG applications continuously throughout the year. Funding is limited to \$50,000 per site.

As of March 31, 2016, DER had received thirteen TAG applications, seven of which were determined to be ineligible or were withdrawn prior to approval. Six applications were approved and funded in the amount of \$250,000. Additional information about the TAG program, including applications to download can be found on the DEC public website at: <http://www.dec.ny.gov/regulations/2630.html>

### VAPOR INTRUSION INITIATIVE

New York State has taken a proactive approach to addressing vapor intrusion issues. "Vapor intrusion" (VI) is the movement of chemical vapors from a subsurface source into the indoor air of overlying buildings. If it is determined that vapor intrusion will result in an exposure, or potential exposure, to residents or workers in a building, the building is fitted with mitigation systems similar to those used to prevent naturally occurring radon from entering structures. DEC and the NYS Department of Health developed a joint strategy to evaluate the VI pathway at all of the sites in the State remedial programs.

DER has incorporated VI investigations into the Remedial Investigation (RI) process which occurs prior to remedy selection at hazardous waste sites. DER identified 421 sites (a.k.a. legacy sites) that completed the RI and remedy selection process prior to the

initiative. These legacy sites have been or are also being evaluated for VI. Table 15 shows the status of those legacy sites.

**Table 15**

<b>Status of Vapor Intrusion Legacy Sites as of March 31, 2016</b>	
<b>Action</b>	<b>Total</b>
<b>Sites with Evaluations Completed</b>	<b>352</b>
<b>Sites with Evaluations Underway</b>	<b>69</b>
<b>Sites Awaiting Evaluation</b>	<b>0</b>
<b>Total Legacy Sites</b>	<b>421</b>

**MANUFACTURED GAS PLANT INITIATIVE**

A manufactured gas plant (MGP) is a former industrial facility at which gas was historically produced from coal, oil, and other feedstocks. The gas was manufactured, stored, and then piped to the surrounding area, where it was used for lighting, cooking, and heating homes and businesses. Most of these plants have been closed for 50-100 years. The sites where MGPs were located, however, often have abandoned underground structures and pipes containing coal tar or other MGP residuals. Some of these waste materials (especially coal tars) may have migrated from existing or former structures and may be present in the subsurface. Impacts to surface water bodies and their sediments are also common since MGPs were typically located near a source of water.

DER has one of the most comprehensive MGP site investigation and remediation initiatives in the country. Since problems associated with former MGP sites were identified, DER has been working with utilities on a state-wide basis to identify and address MGP sites. Statistics for MGP sites addressed under the State's various remedial programs are incorporated in the statistics for each cleanup program in this report.

Table 16

Status of Manufactured Gas Plant Sites Currently Identified by DEC as of March 31, 2016				
Utility	MGP Sites Identified	Sites Under Order/Agreement	Sites Awaiting Order/Agreement	Sites Addressed <sup>2</sup>
Central Hudson Gas & Electric	7	7	0	3
Con Edison	51	51	0	21
National Fuel Gas	8	7	1	3
National Grid (KeySpan) <sup>1</sup>	43	43	0	12
National Grid (NiMo)	55	54	1	16
NYS Electric & Gas	38	36	2	12
Orange & Rockland	7	7	0	1
Rochester Gas & Electric	11	11	0	3
<b>Totals</b>	<b>220</b>	<b>216</b>	<b>4</b>	<b>71</b>

<sup>1</sup> Former Long Island Lighting Company and Brooklyn Union Gas MGP Sites (does not include non-MGP Sites).

<sup>2</sup> Addressed includes sites with completed cleanup programs or determined to require no further action.

## OUTREACH INITIATIVES - GONE PAPERLESS

**Electronic Mailing List Initiatives:** DER distributes site information electronically using county-based email distribution lists. Distributing information electronically provides the quickest and most efficient way to inform the public. In addition, information can be easily distributed to other interested parties.

Going “paperless” has saved paper, energy, postage, and labor, helping our environment and reducing costs to New York’s taxpayers. DEC encourages parties to sign up for one or many electronic mailing lists at: <http://www.dec.ny.gov/public/65855.html>.

In addition, DER has set up electronic mailing lists to distribute program information for brownfield, hazardous waste management, remediation contract procurement and petroleum bulk storage information as part of the DEC Delivers service to send news and updates via email to the public. The public can sign up to receive these and other DEC email updates at: <http://www.dec.ny.gov/chemical/61092.html>.

## WEB RESOURCES

- Brownfield Cleanup Program Certificates of Completion: <http://www.dec.ny.gov/chemical/30360.html>
- Brownfield Cleanup Program: <http://www.dec.ny.gov/chemical/8450.html>
- Brownfields in New York State: <http://www.dec.ny.gov/chemical/brownfields.html>
- Chemical and Petroleum Bulk Storage Information: <http://www.dec.ny.gov/chemical/287.html>
- DEC Division of Environmental Remediation Guidance and Policy Documents: <http://www.dec.ny.gov/regulations/2393.html>
- DEC Division of Environmental Remediation: <http://www.dec.ny.gov/about/627.html>
- Environmental Remediation Database Search. Search for spill incidents, bulk storage sites and sites that have been or are being cleaned up under one of the DEC's remedial programs: <http://www.dec.ny.gov/chemical/8437.html>
- Environmental Remediation Programs Regulations - 6 NYCRR Part 375: <http://www.dec.ny.gov/chemical/34189.html>
- Environmental Restoration Program: <http://www.dec.ny.gov/chemical/8444.html>
- Hazardous Waste Management: <http://www.dec.ny.gov/chemical/8486.html>
- Hazardous Waste Transfer, Storage, and Disposal: <http://www.dec.ny.gov/chemical/8477.html>
- Regulation of Discharges of Radioactive Material to the Environment: <http://www.dec.ny.gov/chemical/296.html>
- State Superfund Program: <http://www.dec.ny.gov/chemical/8439.html>
- Voluntary Cleanup Program: <http://www.dec.ny.gov/chemical/8442.html>