



Department of
Environmental
Conservation

DIVISION OF ENVIRONMENTAL REMEDIATION 2018/2019 ANNUAL REPORT



www.dec.ny.gov

Andrew M. Cuomo, Governor

Basil Seggos, Commissioner

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Cover Photograph – Remedial action underway at State Superfund Site No. 516008 Saranac Lake Gas Co. Inc. Operable Unit 03: Pontiac Bay on Lake Flower. Credit: Ranger Kevin Burns, Division of Forest Protection.

EXECUTIVE SUMMARY

The Division of Environmental Remediation's 2018/2019 Annual Report highlights our continuing efforts to clean up and revitalize contaminated properties and to effectively manage petroleum and chemicals.

- *State Superfund Program (SSF)*
 - 8 new Class 2 sites were added to the Registry during SFY 2018/2019 for a total of 444 Class 2 sites as of March 31, 2019.
 - 1,838 sites had been cleaned up or determined to not require further action as of March 31, 2019.
 - 875 sites (Registry and Non-Registry) being or to be addressed as of March 31, 2019.
 - 916 sites were listed on the State Superfund Registry as of March 31, 2019.
- *Brownfield Cleanup Program (BCP)*
 - 45 applications were approved during SFY 2018/2019.
 - 32 Certificates of Completion were issued during SFY 2018/2019.
 - 432 sites were active as of March 31, 2019.
- *Environmental Restoration Program (ERP)*
 - 5 applications were received during SFY 2018/2019.
 - 8 sites were completed during SFY 2018/2019.
 - 36 sites were active as of March 31, 2019.
- *Voluntary Cleanup Program (VCP)*
 - No applications were received during SFY 2018/2019.
 - 30 sites were completed during SFY 2018/2019.
 - 44 sites were active as of March 31, 2019.
- *Spill Response Program*
 - 12,754 spill incidents were reported during SFY 2018/2019.
 - 12,376 spill incidents were closed during SFY 2018/2019.
 - 10,274 spill incidents remained open as of March 31, 2019.

- *Bulk Storage Programs*
 - 6,538 inspections were conducted during SFY 2018/2019.
 - 7,386 registrations were processed during SFY 2018/2019.
 - 44,491 facilities and vessels were active as of March 31, 2019.
- Hazardous Waste Management Program
 - 6 Corrective Measures were implemented during 2018/2019.
 - 276 facilities were subject to Corrective Action as of March 31, 2019.
- *Manufactured Gas Plant (MGP) Initiative*
 - 220 sites were identified as of March 31, 2019.
 - 218 sites were under order or agreement as of March 31, 2019.
 - 99 sites had been addressed as of March 31, 2019.

DIVISION OF ENVIRONMENTAL REMEDIATION 2018/2019 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, and hazardous waste 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) 2018/2019 (April 1, 2018 through March 31, 2019) 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>

In 2019, DEC launched DECinfo Locator (Locator). Locator is an interactive map that allows the public to access many DEC documents and public data about the environmental quality of specific sites in New York State, as well as information about sites for outdoor recreation. Information and a link to launch Locator can be found at <http://www.dec.ny.gov/pubs/109457.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 (Corrective Action)

STATE SUPERFUND PROGRAM

PROGRAM STATISTICS

Number of sites identified as needing evaluation:¹ **2,713**

Number of sites cleaned up or determined to not require further action:¹ **1,838**

Number of sites being or to be addressed as of 3/31/2019:¹ **875**

Number of Class 2 (significant threat) sites as of 3/31/2019: **444**

Number of Class 4 (properly closed/require management) sites as of 3/31/2019: **423**

Number of federal National Priorities List (NPL) sites as of 3/31/2019: **85**

Number of NPL sites delisted as of 3/31/2019: **33**

Cost recovery revenue received during SFY 2018/2019:² **\$14.2 million**

¹ Life to Date as of 3/31/2019. Includes Registry and Non-Registry sites.

²\$21,586.04 of the amount recovered under the State Superfund Program was from CWIA funding.

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 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. One change to New York sites included on the NPL occurred during SFY 2018/2019; one site, Fulton Terminals (738023), was removed from the NPL.

The 2015/2016 New York State Budget provided a \$100 million yearly appropriation and extends the State Superfund cleanup program for ten years. In SFY 2018/2019, DER received a \$35 million allocation from the \$130 million in Clean Water Infrastructure Act (CWIA) Hazardous Waste General funding appropriated in 2017, which was utilized under title 13 (State Superfund). CWIA funding is focused on projects where 1) one of the site's primary contaminants of concern is an emerging contaminant; 2) work involves a landfill that was investigated by DEC's Division of Materials Management (DMM) using CWIA funds and referred to DER for remediation; or 3) drinking water is potentially impacted at the site. As of 3/31/2019, DER had expended \$8,015,115 in CWIA funding.

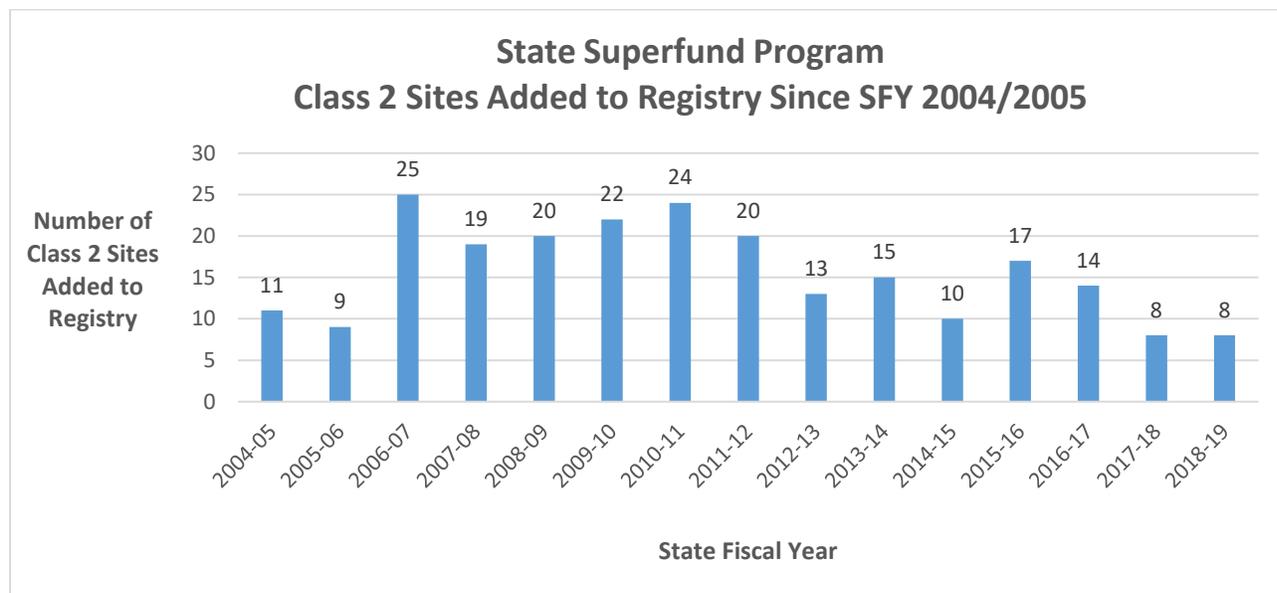
THE REMEDIAL PROCESS

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, 2019				
Remedial Element	Starts		Completions	
	SFY 2018/19	Life to Date	SFY 2018/19	Life to Date
Site Characterization	27	1,389	25	1,259
Remedial Investigation/Feasibility Study	15	1,636	35	1,373
Remedial Design	32	1,164	28	1,022
Remedial Action	47	1,151	28	944
Interim Remedial Measure	11	1,253	14	1,182

Chart 1



Class 2 Site Trend: As of 3/31/2019 there are 444 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 ¹ as of March 31, 2019		
Registry Class	Class Description	Number of Sites
Class 1	Causing or presenting an imminent danger of causing irreversible or irreparable damage to public health or the environment - immediate action required.	0
Class 2	Significant threat to public health or the environment - action required.	444
Class 3	Does not present a significant threat to public health or the environment - action may be deferred.	49
Class 4	Site properly closed - requires continued management.	423
Class 5	Site properly closed, no evidence of present or potential adverse impact - no further action required.	0
Total Number of Sites on the Registry		916

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

BROWNFIELD CLEANUP PROGRAM

PROGRAM STATISTICS

	SFY 2018/2019	LTD ¹
Number of applications received	93	1,162
Number of applications approved	45	934
Number of applications pending as of 3/31/2019	31	
Number of applications ineligible or withdrawn prior to approval	2	197
Number of active sites as of 3/31/2019		432
Number of active sites that currently pose a significant threat as of 3/31/2019		121
Number of Certificates of Completion (COC) issued	32	394
Number of sites with COCs issued that posed a significant threat		119
Total Acreage associated with COC sites		2,208
Total Acreage associated with active BCP sites		2,622
Cost recovery revenue received during SFY	\$1.6 million	

¹ Life to date as of 3/31/2019

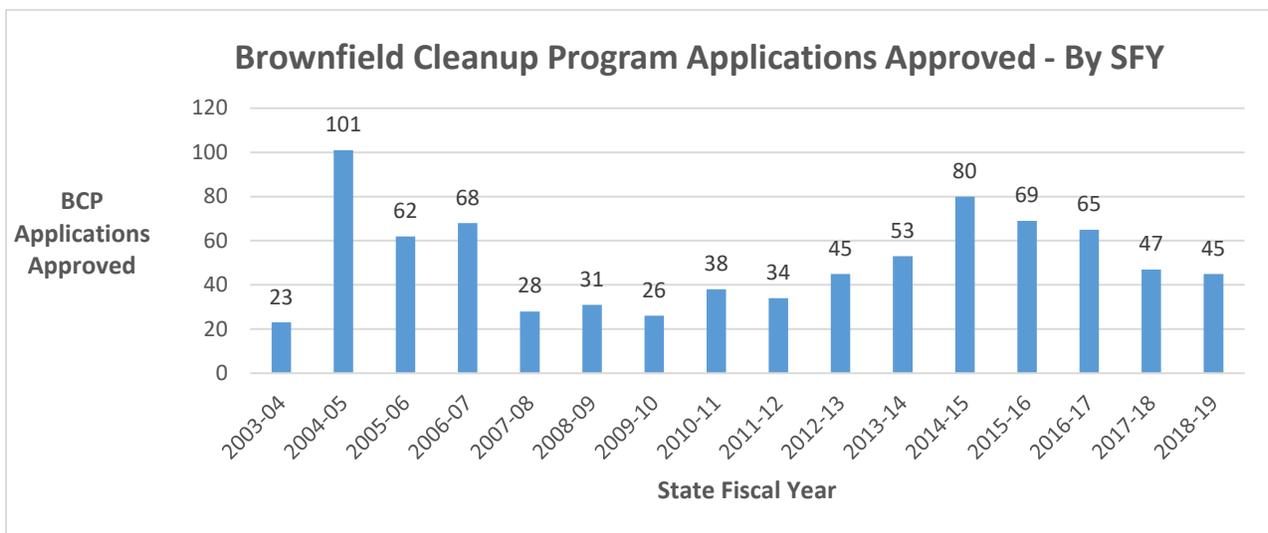
PROGRAM DESCRIPTION

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. A BCP party determined to be responsible for site contamination (known as a “participant” under the BCP) must evaluate and implement an effective remedy that addresses not only contamination on-site but any contamination that has migrated off-site. BCP parties that are not responsible for the contamination (known as “volunteers”) must evaluate and implement an effective remedy to address the contamination on-site as well as prevent further migration of contamination to off-site properties.

Under the BCP, a participant must reimburse the State for oversight costs and any other site-related remedial costs the State incurred prior to the Site becoming a BCP site. Volunteers are not required to pay oversight costs. If a BCP site is determined to be a significant threat and the BCP party is a volunteer, DEC is legally required to pursue potentially responsible parties (PRPs) to address off-site contamination. If no viable PRPs are identified, or if a PRP is identified but no remedial program is initiated, then DEC initiates a State-funded remedial program for the off-site remediation and pursues cost recovery.

Chart 2



BCP Application Trend: The total number of BCP applications approved is 934. 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 2014/2015 was in part the result of developers' desire to qualify for tax credits under existing criteria, before the effective date of changes adopted in 2015.

Table 4

BCP Approved Applications and Active Sites ¹ by DEC Regions as of March 31, 2019					
DEC Region	Counties	BCP Sites with Approved Applications	Approved Applications: Percentage of Total	Active Sites ¹	Active Sites ¹ Percentage of Total
1	Nassau, Suffolk	37	4.4%	24	5.6%
2	Kings, Bronx, Queens, New York, Richmond	323	38.9%	200	46.3%
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	117	14.1%	46	10.6%
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	23	2.8%	9	2.1%
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	8	0.9%	4	0.9%
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	13	1.6%	5	1.2%
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	56	6.7%	23	5.3%
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	77	9.3%	43	9.9%
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	177	21.3%	78	18.1%
Totals		831	100%	432	100.0%

¹ 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.

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.

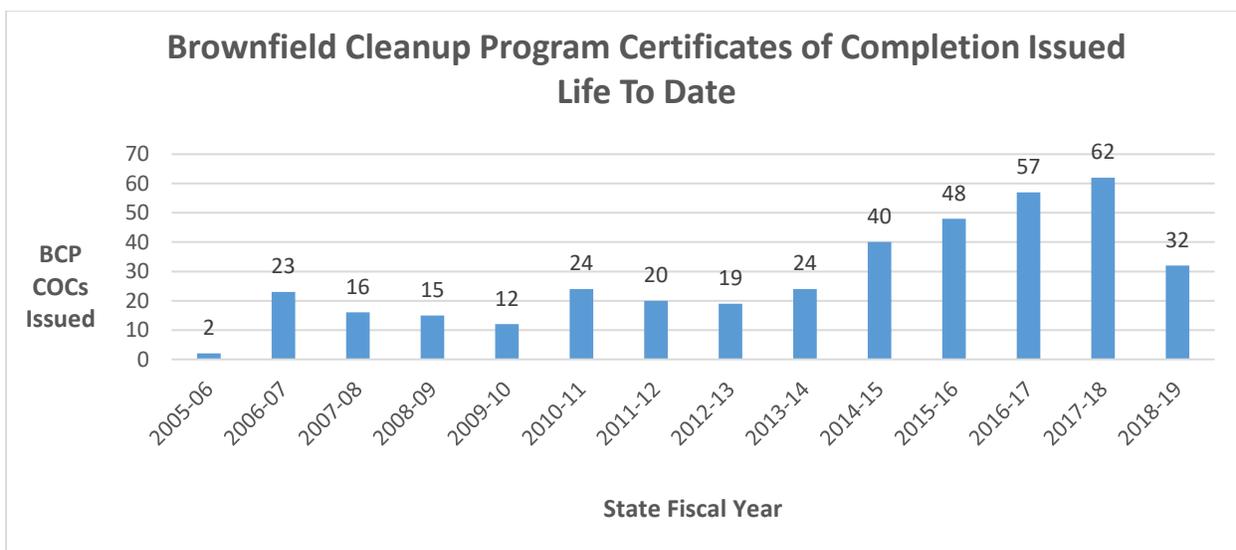
Table 3

BCP Remedial Project Starts/Completions as of March 31, 2019				
Remedial Element	Starts		Completions	
	SFY 2018/19	Life to Date	SFY 2018/19	Life to Date
Remedial Investigation	75	709	49	500
Remedial Design	34	371	38	353
Remedial Action	54	456	34	373
Interim Remedial Measure	28	302	21	237

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 2018/2019, DEC issued 32 COC's to BCP projects located across the state bringing the total for the life of the program up to 394.

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 2016/2017 and SFY 2017/18 new record numbers of COCs were issued (57 and 62, respectively), 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 2015.

Table 5

BCP Certificates of Completion by Region and Allowable Uses ¹ as of March 31, 2019								
DEC Region	Counties	Unrestricted	Residential	Restricted Residential ²	Commercial	Industrial	Multiple Uses Allowed	Total
1	Nassau, Suffolk	2	0	2	4	0	0	8
2	Kings, Bronx, Queens, New York, Richmond	36	8	78	15	1	7	145
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	8	0	35	21	0	2	66
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	1	0	3	3	1	1	9
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	0	0	0	2	0	0	2
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	3	17	0	1	22
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	0	0	15	12	7	0	34
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	10	6	24	55	8	1	104
Totals		57	15	160	132	18	12	394
Percent by Allowable Use		14.5%	3.8%	40.6%	33.5%	4.6%	3.0%	100%

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

² 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 ¹ as of March 31, 2019								
DEC Region	Counties	Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Total
1	Nassau, Suffolk	2	2	0	4	0	0	8
2	Kings, Bronx, Queens, New York, Richmond	30	17	0	84	6	8	145
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	9	2	0	53	0	2	66
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	0	0	0	8	1	0	9
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	0	1	0	1	0	0	2
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	0	0	0	4	0	0	4
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	0	1	0	20	0	1	22
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	0	4	0	30	0	0	34
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	10	29	0	65	0	0	104
Totals		51	56	0	269	7	11	394
Percentage by Cleanup Track		12.9%	14.2%	0.0%	68.3%	1.8%	2.8%	100%

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

BROWNFIELD CREDIT REPORT

Chapter 390 of the Laws of 2008 requires the New York State Department of Taxation and Finance (NYSDTF) to produce a *Brownfield Credit Report* (Tax Law § 171-r) by January 31st of each year. These reports can be found on the NYSDTF website at https://www.tax.ny.gov/research/stats/statistics/special_interest_reports/brownfield_credit/brownfield_credit_reports_open_data.htm

ENVIRONMENTAL RESTORATION PROGRAM

PROGRAM STATISTICS

	SFY 2018/2019	LTD ¹
Number of applications received	5	429
Number of active sites as of 3/31/2019	36	
Number of sites completed ²	8	136
Total acreage associated with completed sites ²		616
Cost recovery revenue received during SFY	\$0.5 million	

¹ Life to Date as of 3/31/2019.

² 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.

Overall Program Funding: From 2008 to 2015 DEC stopped accepting new ERP applications due to a lack of funding. Applications were once again accepted in 2015 through New York Works Round II (NYWII) Funding and again in 2018 following additional funding provided through the 2015/16 State budget. Due to the backlog of unremediated sites previously in the program, only those sites which had been the subject of an environmental investigation under the ERP and had a DEC-issued Record of Decision (ROD) were eligible to apply.

New York Works Round II (NYWII) Funding: In 2015, in response to a DEC request for applications, thirteen municipalities across the state received 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 is being 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 signed agreements with DEC in 2015. Under these agreements, DEC undertook the remediation work directly with the municipality paying ten percent of project costs. Four of these sites received COCs in FY 2018-19, with three receiving COCs in previous years.

Hazardous Waste Cleanup Account: 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. DEC reinstated the ERP in 2018 and approved four ERP applications for projects that have a DEC-issued ROD for the site. Those projects will be funded using the Hazardous Waste Cleanup Account. The municipalities have chosen to be the lead for three of the projects while DEC will perform the remedial work for one project.

Approximately \$180 million of the \$200 million authorized under the 1996 Clean Water/Clean Air Bond Act for the ERP has been committed. 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.

Remediation of 136 ERP sites has been completed, 36 sites remain active in various stages of remediation and require close-out.

For additional details on recent ERP reforms, program funding and eligibility, see the ERP web page: <http://www.dec.ny.gov/chemical/8444.html>.

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, 2019				
Remedial Element	Starts		Completions	
	SFY 2018/19	Life to Date	SFY 2018/19	Life to Date
Remedial Investigation	0	233	0	207
Remedial Design	1	67	1	65
Remedial Action	2	75	9	71
Interim Remedial Measure	0	98	0	96

Table 8

ERP Active Sites by DEC Region as of March 31, 2019			
DEC Region	Counties	ERP Active Sites ¹	Percentage of Total
1	Nassau, Suffolk	1	2.8%
2	Kings, Bronx, Queens, New York, Richmond	0	0.0%
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	5	13.9%
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	4	11.1%
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	3	8.3%
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	7	19.4%
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	10	27.8%
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	2	5.6%
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	4	11.1%
Totals		36	100%

¹ 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 2018/2019	LTD ¹
Number of applications received	0	907
Number of applications approved	0	752
Number of applications ineligible, withdrawn, or terminated	0	155 ³
Number of active sites as of 3/31/2019	44	
Number of sites completed ²	30	304
Cost recovery revenue received during SFY	\$0.6 million	

¹ Life to Date as of 3/31/2019.

² Completed sites are Class C sites.

³ 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. Due to successful legal challenges, DEC terminated the VCP on June 30, 2018. All project requirements, including institutional controls and approval of final engineering reports, were completed by that date. Many of the 44 active sites listed above have completed remedial construction, and require only documentation and administrative actions to achieve closure. DEC will be

transitioning sites not completed under the VCP to the BCP and State Superfund Programs, as appropriate, so that unfinished cleanups may continue.

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, 2019				
Remedial Element	Starts		Completions	
	SFY 2018/19	Life to Date	SFY 2018/19	Life to Date
Remedial Investigation	0	395	7	291
Remedial Design	5	228	7	212
Remedial Action	3	338	22	287
Interim Remedial Measure	0	128	3	114

Table 10

VCP Active Sites by DEC Region as of March 31, 2019			
DEC Region	Counties	VCP Active Sites ¹	Percentage of Total
1	Nassau, Suffolk	4	9.1%
2	Kings, Bronx, Queens, New York, Richmond	18	40.9%
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	13	29.5%
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	1	2.3%
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	1	2.3%
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	0	0.0 %
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	3	6.8%
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	3	6.8%
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	1	2.3%
Totals		44	100%

¹ 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 2018/2019:	State funded: 547
	RP¹ funded: 12,207
	Total spills: 12,754
Number of spill incidents closed during SFY 2018/2019:	State funded: 495
	RP¹ funded: 11,881
	Total spills closed: 12,376
Number of open spills as of 3/31/2019:	State funded: 1,125
	RP¹ funded: 9,149
	Total open spills: 10,274

¹Responsible 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

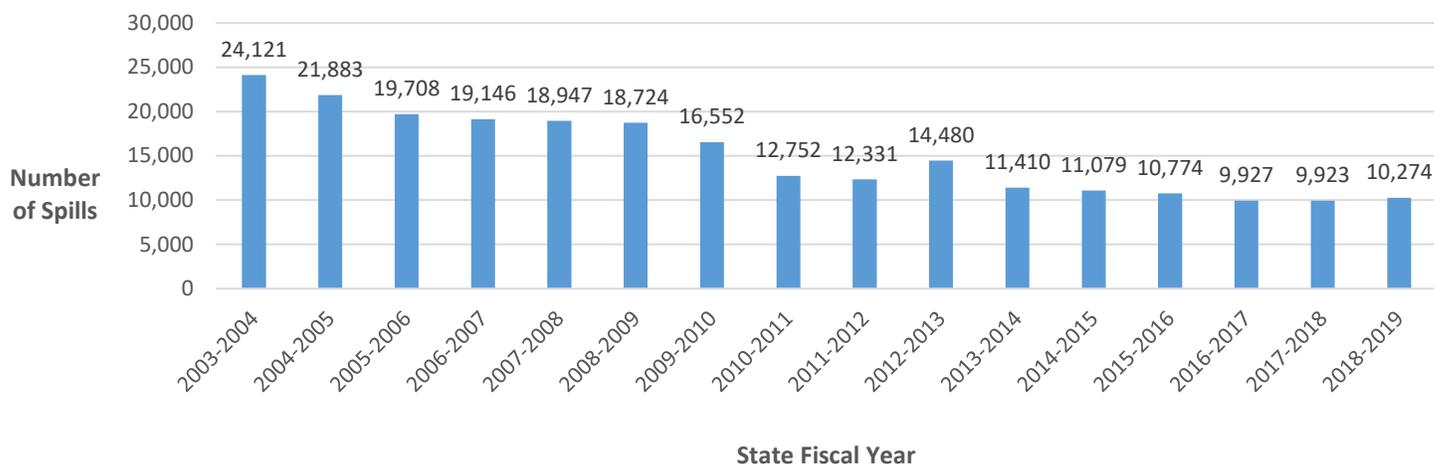
The goal of the Spill Response Program is to protect public health and the environment by ensuring a timely and appropriate response to spills and unauthorized discharges of contaminants, and by investigating and remediating such incidents. DEC operates a 24-hour Spill Hotline for receiving notification 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. Over 96 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 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

Spill Response Program Number of Open Spills Since SFY 2003/2004 as of March 31 of Each Fiscal Year



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 2018/2019 by DEC Region and County					
DEC Region	Counties	Spill Incidents			
		Reported	Percent of Total Reported	Closed	Percent of Total Closed
1	Nassau, Suffolk	2,175	17.0%	2,190	17.7%
2	Kings, Bronx, Queens, New York, Richmond	1,619	12.7%	1,792	14.5%
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester	2,979	23.3%	2,576	20.9%
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady, Schoharie	1,193	9.4%	1,103	8.9%
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington	977	7.7%	981	7.9%
6	Herkimer, Jefferson, Lewis, Oneida, St. Lawrence	534	4.2%	657	5.3%
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga, Tompkins	989	7.8%	956	7.7%
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne, Yates	1,100	8.6%	944	7.6%
9	Allegany, Chautauqua, Cattaraugus, Erie, Niagara, Wyoming	1,188	9.3%	1,177	9.5%
Total	All Counties	12,754	100%	12,376	100%

BULK STORAGE PROGRAMS

PROGRAM STATISTICS¹

Number of active Petroleum Bulk Storage (PBS) Facilities: **42,872** and Tanks: **102,696**

Number of PBS registrations processed during SFY 2018/2019: **6,839**

Number of active Major Oil Storage Facilities (MOSFs) On-Shore: **156** Vessels: **172** and Tanks: **3,013**

Number of On-Shore MOSF Licenses issued: **35** Vessel Licenses issued during SFY 2018/2019: **3**

Number of active Chemical Bulk Storage (CBS) Facilities: **1,291** and Tanks: **4,420**

Number of CBS Registrations processed during SFY 2018/2019: **506**

¹ As of 3/31/2019 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) had been delegated authority to administer the PBS Program. During SFY 2017/18, Rockland County and the Nassau County Fire Commission terminated their delegation agreements. DEC assumed their prior responsibilities. The Nassau County Health Department continues to participate as a delegated entity.

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.

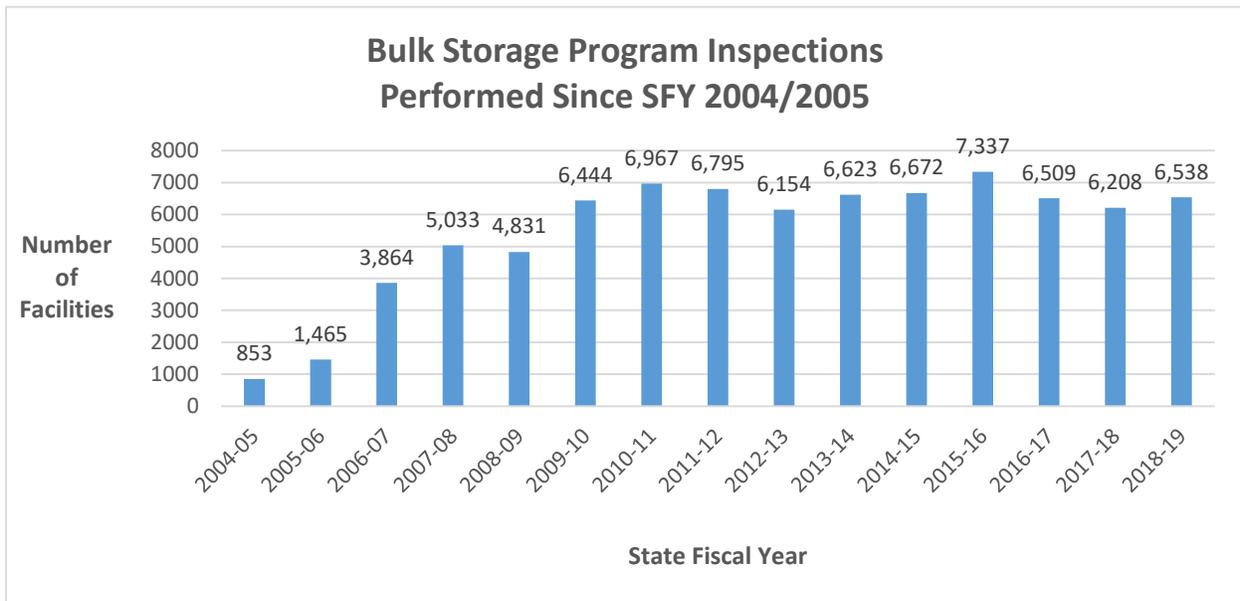
Chemical Bulk Storage Program: The CBS Program applies to any aboveground tank with a capacity of 185 gallons or more of a hazardous substance, all underground tanks storing a hazardous substance regardless of capacity, and non-stationary tanks used to store 1,000 kilograms (2,200 pounds) or more of 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.

Table 12

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
2016/17	6,174	276	59	6,509
2017/18	5,861	278	69	6,208
2018/19	6,231	248	59	6,538

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.

HAZARDOUS WASTE MANAGEMENT PROGRAM

PROGRAM STATISTICS

Corrective Action Accomplishments

Number of Hazardous Waste Facilities Subject to Corrective Action as of 3/31/2019: **276**

USEPA Environmental Indicators completed in SFY 2018/2019

CA 550	Corrective Measure Implementation - Construction Complete	6
CA 725	Human Exposure Controlled	3
CA 750	Groundwater Releases Controlled	4

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. DER's Hazardous Waste Management Program implements corrective action at sites regulated under 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. DEC's DMM oversees all other aspects of the Hazardous Waste Management Program, including conducting inspections and enforcement at all categories of hazardous waste facilities and handlers, and tracking hazardous waste from its point of generation through final disposition. These are done using the facility permit process, the hazardous waste manifest system, annual reports submitted by generators and hazardous waste facilities, and through the Waste Transporter Permit Program. DMM also administers regulatory hazardous waste fees, special assessment taxes and the Used Oil Regulatory Program.

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. DER provides an accounting of progress toward key environmental indicators (i.e., construction complete, human exposures controlled, and groundwater releases controlled) to DMM annually. This information is reported to USEPA pursuant to RCRA grant requirements to track accomplishments.

OTHER MAJOR INITIATIVES

EMERGING CONTAMINANTS

Protecting New York's drinking water and ensuring that future generations of New Yorkers have access to clean water is one of the greatest challenges the State faces today. Like many other states, New York is dealing with the impacts of emerging contaminants (ECs) such as per- and polyfluorinated alkyl substances (PFAS) and 1,4-dioxane affecting groundwater, public water supply systems and private drinking wells in several of our communities.

To assess the presence of these emerging contaminants in groundwater and evaluate the types, amounts and likely areas of concern across the state, DEC initiated an Emerging Contaminant Sampling Initiative to evaluate groundwater at all active sites in DER's remedial programs. The targeted sites include all Class 2 and 4 SSF sites, all active BCP sites, and certain RCRA sites in Corrective Action. All newly identified SSF and BCP sites will be tested for ECs as part of standard groundwater sampling. Groundwater EC sampling has been completed or is planned at more than 1,300 remedial sites (SSF, BCP and RCRA) and is expected to be completed at all sites in 2020. If data collected at a site indicates that EC levels are in exceedance of DEC-established screening levels, additional steps are taken to identify apparent sources and potential receptors proximate to the site. Follow-up actions depend on the site's overall remedial phase and can include defining the nature and extent of the plume or source, incorporating EC sampling into the site management program, and initiating off-site drinking water supply well sampling. The New York State Department of Health may also require provision of an alternate water supply. Data collected through this initiative will also be used to identify potential receptors (especially drinking water) and formulate priorities, policies and procedures for addressing ECs and mitigating potential public health and environmental impacts.

New guidance issued in February 2019 requires the sampling of all environmental media for emerging contaminants at all new sites entering any DER program. PFAS and 1,4-dioxane will be incorporated into the investigation of soil, groundwater, surface water, sediment and, where applicable, biota. If an emerging contaminant is identified as a contaminant of concern (COC) for a site, those compounds must be assessed as part of the remedy selection process and included as part of the monitoring program upon entering site management. In addition, soil imported to a site for use in a soil cap, soil cover, or as backfill must be sampled for PFAS and 1,4-dioxane contamination in general

conformance with DER-10, section 5.4(e). Assessment of the soil data will be made on a site-specific basis to determine appropriateness for use.

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 13

Status of Manufactured Gas Plant Sites Currently Identified by DEC as of March 31, 2019				
Utility	MGP Sites Identified	Sites Under Order/Agreement	Sites Awaiting Order/Agreement	Sites Addressed ²
Central Hudson Gas & Electric	7	7	0	6
Con Edison	51	51	0	32
National Fuel Gas	8	7	1	4
National Grid (KeySpan) ¹	43	43	0	15
National Grid (NiMo)	55	54	1	20
NYS Electric & Gas	38	38	0	14
Orange & Rockland	7	7	0	2
Rochester Gas & Electric	11	11	0	6
Totals	220	218	2	99

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

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

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 Brownfield and State Superfund Programs: <https://www.dec.ny.gov/chemical/84286.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>
- DECinfo Locator. An interactive map that lets you access many DEC documents and public data about specific sites: <https://www.dec.ny.gov/pubs/109457.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>
- State Superfund Program: <http://www.dec.ny.gov/chemical/8439.html>
- Voluntary Cleanup Program: <http://www.dec.ny.gov/chemical/8442.html>