

Department of Environmental Conservation

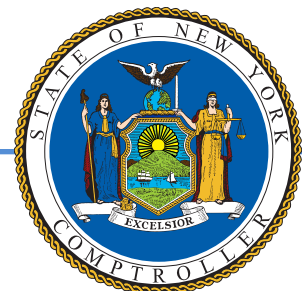
Brownfield Cleanup Program

Report 2022-S-26 | June 2025

OFFICE OF THE NEW YORK STATE COMPTROLLER

Thomas P. DiNapoli, State Comptroller

Division of State Government Accountability



Audit Highlights

Objective

To determine whether the Department of Environmental Conservation (DEC) is effectively administering and monitoring the Brownfield Cleanup Program in accordance with requirements. The audit covered the period from January 2019 through January 2025.

About the Program

Brownfields are properties where a hazardous substance is present at levels exceeding DEC cleanup standards or other health-based or environmental standards applicable to the expected use of the property (e.g., residential or commercial). These substances may pose a range of hazards to human health and the environment, but left vacant, contaminated sites can also diminish property values and threaten the economic viability of surrounding properties. The U.S. Environmental Protection Agency estimates that there are more than 450,000 brownfields in the United States.

DEC's Brownfield Cleanup Program (Brownfield Program) was established to encourage and accelerate voluntary private-sector cleanup and redevelopment of brownfield sites through incentives including technical assistance, tax credits, and liability relief to assist developers in cleanup efforts. Prior to the Brownfield Program,¹ owners of contaminated properties in the State were held liable for cleanup costs, regardless of when or how the properties were acquired relative to the contamination. This responsibility—in addition to the potential cost of cleanup, which may not be known at the time of acquisition—contributed to developers' reluctance to purchase even minimally contaminated sites. Although redevelopment of sites is not a requirement of the program, DEC officials state that remediation of sites makes them more attractive to potential buyers by removing a barrier to redevelopment.

Individuals interested in the Brownfield Program must submit an application to DEC. Upon approval, DEC formalizes program participation with applicants by entering into a Brownfield Cleanup Agreement (Agreement) outlining site investigation and cleanup objectives. Site cleanup under remedial programs can take several years to complete. As such, DEC reviews, oversees, and tracks each site's progress from investigation, design, and completion of each remedial measure, in addition to certifying cleanup completion and planning for any further site management needs. To track and expedite site progress, DEC officials stated staff conduct site visits, meet periodically with project managers to discuss progress and guidance on next steps, and identify roadblocks to remediation and resolutions. Failure to initiate, proceed with, or complete the remedial program in accordance with the Agreement, including schedules in approved work plans, is cause for DEC to terminate the Agreement. As of October 12, 2023, there were 669 active Brownfield Program sites in New York State.

Distinct from the voluntary Brownfield Program, the Inactive Hazardous Waste Disposal Site Program (referred to as the Superfund Program) is DEC's enforcement program, with a goal of ensuring that hazardous waste sites that pose a significant threat to public health or the environment are properly addressed. DEC is required by law to investigate all suspected or known potential inactive hazardous waste disposal sites. Potential sites go through an environmental assessment to confirm the presence

¹ The Brownfield Program was modeled after DEC's former Voluntary Cleanup Program (VCP). The VCP was established in 1994 to address the environmental, legal, and financial barriers that hinder the reuse and redevelopment of contaminated properties. Volunteers that successfully completed remedial actions received a liability release from DEC indicating no further action would be taken at the site; however, the release was not binding on other State agencies or the State's Attorney General. As of March 2025, 314 sites were completed under the VCP.

of hazardous waste and determine the level of threat posed to public health or the environment. Once the presence of a consequential amount of hazardous waste is confirmed at a site, it is added to the State's public Registry of Inactive Hazardous Waste Disposal Sites (Registry). DEC attempts to identify the responsible party or parties for contamination, and when known, they often pay for and perform the investigation and evaluation of cleanup options. However, when the responsible parties cannot be identified, or are unable or unwilling to pay for remediation, and only after DEC makes all reasonable efforts to secure voluntary agreement with responsible parties to fund the investigation and cleanup without success, the State may use Superfund Program funds to complete investigation and cleanup.

While both programs allow owners that may be responsible for contamination of sites to voluntarily remediate, under the Brownfield Program, sites are not added to the Registry and owners receive an added benefit of being able to claim tax credits for remediation when it's completed. Based on publicly available data provided by the Department of Taxation and Finance, between calendar years 2019 and 2022, New York saw a 60% increase in claimed Brownfield Program tax credits, totaling \$1.8 billion.

Key Findings

While time needed to complete remediation varies from site to site based on the type, scope, and severity of contamination, we identified some sites in the Brownfield Program that posed significant threats to health and the environment where delays did not appear to be reasonable. We reviewed 518 active Brownfield Program sites and determined 86 sites (17%) have been active for more than 10 years. Of the 25 sites we reviewed that had been in the program between 17 and 19.5 years, DEC officials indicated that four (16%) posed a significant threat to the public health or environment and had significant delays. Reasons for delays were unique to each site and included, but were not limited to:

- Remedial actions failing
- DEC rejecting certain reports submitted by the applicant
- Owners experiencing financial difficulties that delayed progress
- General lack of progress

Additionally, between September 2018 and July 2024, we identified 27 sites that entered the Brownfield Program and had remedial activity (e.g., investigations and/or remedial actions) that could have possibly been remediated through the Superfund Program, but whose owners chose to apply for the Brownfield Program after receiving notification from DEC of the option to do so. Of the nine sites in the remedial action stage as of December 2024, we found issues with two (22%) that suggested the applicants may not have entered the Brownfield Program in good faith or entered without due consideration of the significant financial costs of the remediation. Specifically:

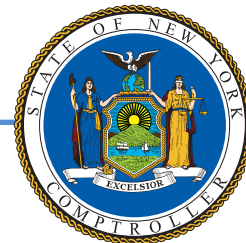
- For a dry-cleaning business in Brooklyn, there were multiple delays, partly the result of financial difficulties. More than 9 years after contamination was identified and more than 4 years after entering the Brownfield Program, this property had not been remediated despite being identified as posing a significant threat to health and the environment.
- Another project, a former dry-cleaning business in Westchester County, also experienced significant delays and the applicant did not adequately disclose certain factors to DEC when they applied for the Brownfield Program. Six years after the initial investigation finding new contamination and 3 years after finding evidence of ongoing contamination, the site had not been fully remediated.

Protracted cleanup efforts may unnecessarily prolong the risk contamination poses and delay opportunities for revitalization and the related economic benefits.

Although time frames for project completion are outlined in Agreements and DEC work plans, DEC lacks specific policies, or other such guidance documents, that specifically communicate to project managers criteria or time frames to review project activity against expected outcomes and when to take appropriate action over a lack of progress. Instead, this is done on a case-by-case basis. Although situations are unique to each site, DEC should develop policies and/or guidance documents to assist project managers in determining when amended remedial schedules, Brownfield Program termination, or using the Superfund Program would be the most effective remedy for lack of progress.

Key Recommendation

- Develop policies or guidance that communicates to project managers more specific criteria and time frames for determining appropriate progress and possible actions to ensure effective and timely cleanup for sites that pose a significant threat to health and the environment. The policies or guidance should include direction on when program termination should be considered and what circumstances might constitute lack of progress, especially in cases where DEC determines the applicant is not acting in good faith to adhere to the Agreement.



Office of the New York State Comptroller Division of State Government Accountability

June 18, 2025

Amanda Lefton
Commissioner
Department of Environmental Conservation
625 Broadway
Albany, NY 12233

Dear Commissioner Lefton:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage their resources efficiently and effectively. By so doing, it provides accountability for the tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit entitled *Brownfield Cleanup Program*. This audit was performed pursuant to the State Comptroller's authority under Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

Division of State Government Accountability

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Glossary of Terms

Term	Description	Identifier
DEC	Department of Environmental Conservation	<i>Auditee</i>
Agreement	Brownfield Cleanup Agreement	<i>Key Term</i>
Brownfield Program	Brownfield Cleanup Program	<i>Program</i>
Notification Letter	Program Notification Letter	<i>Key Term</i>
Participant	Under the Brownfield Program, the owner or operator of the site at the time of the disposal of hazardous waste or discharge of petroleum at the site, or who otherwise failed to take reasonable care to discontinue releases or to prevent further releases	<i>Key Term</i>
PCE	Tetrachloroethene	<i>Key Term</i>
Potential Site	Potential inactive hazardous waste disposal site	<i>Key Term</i>
Registry	Registry of Inactive Hazardous Waste Disposal Sites	<i>Key Term</i>
Superfund Program	Inactive Hazardous Waste Disposal Site Program	<i>Program</i>
TCE	Trichloroethylene	<i>Key Term</i>
VCP	Voluntary Cleanup Program	<i>Program</i>
Volunteer	Under the Brownfield Program, a party that is not liable for the disposal of hazardous waste or discharge of petroleum at the site	<i>Key Term</i>

Background

Brownfields are properties where a hazardous substance is present at levels exceeding the Department of Environmental Conservation's (DEC) cleanup standards or other health-based or environmental standards applicable to the expected use of the property (e.g., residential or commercial). Generally, brownfields are former industrial or commercial properties where operations may have resulted in environmental contamination. The types of contaminants commonly reported at brownfield sites include lead, arsenic, and other heavy metals; asbestos; chemicals such as solvents, dry-cleaning fluids, and degreasers; petroleum; and manufacturing by-products including creosote and soot. These substances may—depending on type and extent of exposure—cause health issues ranging from eye irritation and nausea to developmental disorders, organ damage, or cancer, with children, the elderly, and persons with chronic conditions at the greatest risk. Contamination may also spread to nearby properties or even farther when located near flood zones, coastal areas, or areas prone to wildfires.

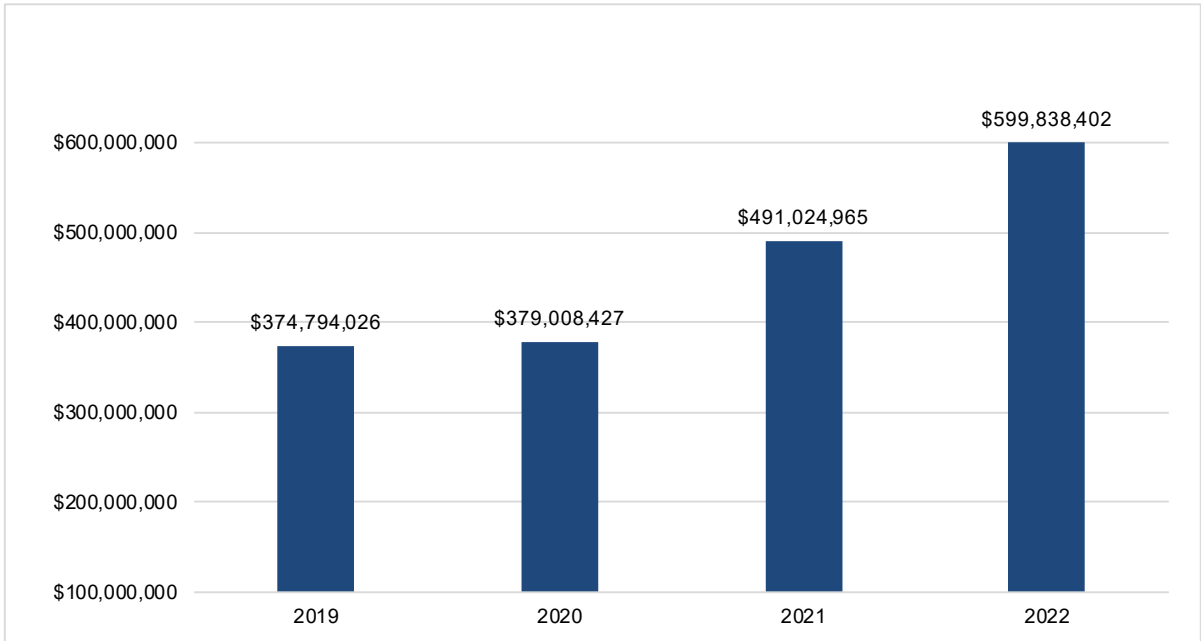
The U.S. Environmental Protection Agency estimates that there are more than 450,000 brownfields in the United States. Brownfields not only may present health and environmental concerns, but may also become legal and financial burdens for communities. Left vacant, contaminated sites can diminish property values, attract loiterers and criminal activity, and threaten the economic viability of surrounding properties. Cleaning up and reinvesting in these properties increases local tax bases; facilitates job growth; utilizes existing infrastructure; may take development pressures off undeveloped, open land; and both improves and protects the environment.

DEC's mission is to conserve, improve, and protect New York's natural resources and environment and to prevent, abate, and control water, land, and air pollution, to enhance the health, safety, and welfare of the people of the State and their overall economic and social well-being. This is accomplished, in part, through DEC's site cleanup programs, including the Brownfield Cleanup Program (Brownfield Program) and the Inactive Hazardous Waste Disposal Site Program (referred to as the Superfund Program).

Enacted in 2003, Article 27, Title 14 of the Environmental Conservation Law established New York's Brownfield Program to encourage and accelerate voluntary private-sector cleanup and redevelopment of brownfield sites. The program is intended to revitalize economically disadvantaged communities, impede the spread of development outward into valuable open space areas, and promote job development. Although redevelopment of sites is not a requirement of the Brownfield Program, DEC officials state that remediation makes sites more attractive to potential buyers by removing a barrier to redevelopment. To incentivize participation, the program offers technical assistance, liability relief, and tax credits to assist developers in cleanup efforts. Tax credits offset costs associated with real property taxes, including site preparation, water treatment expenses, and property improvements.

Based on publicly available data provided by the Department of Taxation and Finance, between calendar years 2019 and 2022, New York saw a 60% increase in claimed Brownfield Program tax credits, totaling \$1.8 billion,² as shown in Figure 1.

Figure 1 – Brownfield Program Redevelopment Tax Credits by Calendar Year



Prior to the Brownfield Program,³ owners of contaminated properties in the State, with few exceptions, were held liable for cleanup costs, regardless of when or how the properties were acquired relative to the contamination. This responsibility—in addition to the potential cost of cleanup, which may not be known at the time of acquisition—contributed to developers’ reluctance to purchase even minimally contaminated sites. Additionally, lenders were often reluctant to extend credit for the purchase and cleanup of brownfield sites due to possible future liability or decreased value of the property held as collateral if the site required more extensive and costly cleanup than initially anticipated. As a result, financing such a purchase had been difficult.

Individuals interested in the Brownfield Program must submit an application to DEC. Upon approval, DEC formalizes a Brownfield Cleanup Agreement (Agreement)

2 As of August 2024, the Department of Taxation and Finance had reported credits claimed from calendar year 2005 through calendar year 2022. This data is posted to the State’s [Open Data](#) website.

3 The Brownfield Program was modeled after DEC’s former Voluntary Cleanup Program (VCP). The VCP was established in 1994 to address the environmental, legal, and financial barriers that hinder the reuse and redevelopment of contaminated properties. Volunteers that successfully completed remedial actions received a liability release from DEC indicating no further action would be taken at the site; however, the release was not binding on other State agencies or the State’s Attorney General. As of March 2025, 314 sites were completed under the VCP.

committing applicants to undertake certain remedial activities under DEC's oversight. Applicants enter the program either as a Volunteer or Participant.

A major component of the Brownfield Program is achieving cleanup that complies with established soil cleanup objectives based on the intended use of the property (e.g., residential, commercial). If an applicant meets the definition of a Participant, the program also provides for the investigation and cleanup of contamination that has emanated from the site to off-site locations for which a Participant is responsible. DEC is responsible for an off-site investigation and cleanup, if required, if the applicant is a Volunteer. Site investigations and cleanups for both Participants and Volunteers are completed with DEC's oversight.

Volunteer vs. Participant

A **Volunteer** is defined under the Brownfield Program as a party that is not liable for the disposal of hazardous waste or discharge of petroleum at the site.

A **Participant** is defined under the program as the owner or operator of the site at the time of the disposal of hazardous waste or discharge of petroleum at the site, or who otherwise failed to take reasonable care to discontinue releases or to prevent further releases.

Applicants are required to submit certain documents to DEC for review and approval throughout the remediation process, including plans that outline the actions to be taken to determine the extent of contamination and to remediate the site. Most of these documents are required to be certified by either a professional engineer licensed in New York State or a qualified environmental professional.

Sites differ in the type, scope, and severity of contamination, all of which affect the amount of time needed to complete remediation. Interim remedial measures can be implemented quickly to mitigate the harm to the environment and public health prior to full remediation taking place. The Agreements establish Brownfield Program remediation timelines and the applicant establishes schedules in their work plans, which DEC reviews, approves, and uses to benchmark progress against. According to DEC, site cleanup under remedial programs can take several years to complete. As such, DEC reviews, oversees, and tracks each site's progress from investigation, design, and completion of each remedial measure, in addition to certifying cleanup completion and planning for any further site management needs.

To track and expedite progress, DEC staff conduct site visits, hold periodic tracking meetings with project managers to discuss milestone achievement and provide guidance on next steps, and identify roadblocks to remediation and resolutions. When deadlines are not met, DEC issues Opportunity to Cure letters that notify owners of issues DEC identified with the remediation process and non-compliance with the Agreement, while providing an option to continue Brownfield Program participation by submitting revised remediation schedules. DEC may terminate program participation for cause, including the failure to substantially comply with Agreement terms and conditions, including schedules in approved work plans. As such, the failure to initiate, proceed with, or complete the remedial program in accordance with its schedule could provide grounds to terminate the Agreement for cause.

After site cleanup objectives are met and DEC approves the Final Engineering Report, DEC issues a Certificate of Completion, making the applicant eligible to apply for Brownfield Program tax credits. Between January 1, 2019 and October 12, 2023, DEC issued 202 Certificates of Completion. As of October 12, 2023, there were 669 active Brownfield Program sites. According to DEC officials, as of March 2024, the program successfully cleaned up, and DEC issued Certificates of Completion for, a total of 654 sites since program inception.

Environmental Conservation Law Article 27, Title 13, established the Superfund Program (DEC's enforcement program) to address the identification, investigation, assessment, management, and control of inactive hazardous waste disposal sites. The Environmental Conservation Law also requires DEC to investigate all potential inactive hazardous waste disposal sites (Potential Sites). DEC is made aware of Potential Sites in a variety of ways, such as from the public, data from other sites, and county referrals. Potential Sites go through an environmental assessment (referred to as a site characterization) to confirm the presence of hazardous waste and determine the level of threat posed to public health or the environment. Once the presence of a consequential amount of hazardous waste is confirmed at a site, it is added to the State's public Registry of Inactive Hazardous Waste Disposal Sites (Registry) and is given a classification code commensurate with the threat level to the public and environment, as follows:

- Class 1: a site causing, or presenting an imminent danger of causing, irreversible or irreparable damage to the public health or the environment that requires immediate action
- Class 2: a site that presents a significant threat to the public health or environment and requires remedial action
- Class 3: a site that does not present a significant threat to the public health or environment, and remedial action may be deferred
- Class 4: a site that has been properly closed but requires continued management

Being added to the Registry may have various implications for site owners including legal (e.g., potential suits for damages if other properties are contaminated), economic (e.g., barrier to future investment in or sale of the property), and reputational (e.g., the stigma associated with being identified as responsible for contaminating a site). As of October 2024, there were 936 sites on the Registry as follows: 423 Class 2, 42 Class 3, and 471 Class 4 sites. According to DEC officials, as of September 2024, there had never been a Class 1 site. Class 2 sites typically go through a detailed environmental

Who is a Responsible Party?

A **Responsible Party** is defined under the Superfund Program as any person who:

- Currently owns or operates a site
- Owned or operated a site at the time of disposal of the contaminant
- Generated any contaminants disposed of at the site
- Transported any contaminants to a site selected by such person
- Disposed of any contaminants at the site
- Arranged for the transportation of contaminants to the site
- Arranged for the disposal of any contaminants
- Is responsible according to applicable principles of statutory or common-law liability

investigation referred to as a remedial investigation. When the responsible parties for contamination are known, they often pay for and perform the investigation and evaluation of cleanup options. However, when the responsible parties cannot be identified, or are unable or unwilling to pay, and only after DEC makes all reasonable efforts to secure voluntary agreement with responsible parties without success, the State may use Superfund Program funds to pay for the investigation and cleanup. Reasonable efforts may include, but are not limited to, reviews of real property records, regulatory files of appropriate government agencies, publicly available financial information, and private business records. According to DEC officials, DEC attempts to recover State-incurred costs from responsible parties after the investigation and cleanup are complete. The State funds the Superfund Program through annual appropriations of \$100 million to the Hazardous Waste Cleanup Account.

As a practice, when DEC identifies a Potential Site, it sends a Program Notification Letter (Notification Letter) to the property owners, informing them that their property may be considered a Potential Site. The Notification Letter informs the owners of DEC's requirement to investigate the site and offers the property owners the opportunity to conduct the investigation themselves through a legal agreement with DEC through the Superfund Program. The letter also provides owners the option of investigating the site through a voluntary agreement under the Brownfield Program.

While the Brownfield Program and Superfund Program both involve remediating contaminated sites that pose a significant threat to public health or the environment, they differ in key ways. Under the Superfund Program, site cleanup can potentially be prioritized and directly controlled by DEC. Furthermore, as noted above, there are provisions to fund site cleanup if responsible parties are unwilling or unable to pay, and these sites are publicly listed on the Registry as contaminated sites requiring remedial actions. Under the Superfund Program, DEC is authorized to take legal action against responsible parties to recover funds spent to clean up sites. The Brownfield Program, by contrast, is entirely voluntary; however, applicants are still responsible for reimbursement of State-incurred costs. Under the Superfund Program, DEC must make reasonable efforts to secure a voluntary agreement with responsible parties, which may include the review of public financial information and property records. DEC does not consider the same type of information when determining eligibility for the Brownfield Program. Also, while both programs allow owners that may be responsible for contamination of sites to voluntarily remediate the contamination, under the Brownfield Program, sites are not added to the Registry and owners receive an added benefit of being able claim tax credits for remediation upon completion.

Audit Findings and Recommendations

We identified some sites in the Brownfield Program for which remediation delays did not appear to be reasonable. Of the 25 sites we reviewed that had been in the program between 17 and 19.5 years, DEC officials indicated that four (16%) posed a significant threat to the public health or environment. Long delays or lack of progress in site cleanup may unnecessarily prolong the threat contamination poses and stall opportunities for revitalizing these properties. More detailed policies and guidance communicating criteria and time frames could assist project managers with determining when protracted program efforts have not yielded results and warrant additional actions.

Additionally, between September 2018 and July 2024, we identified 27 potential Registry sites that could have possibly been remediated through the Superfund Program that—after receiving Notification Letters—entered the Brownfield Program to perform cleanup. Nine of 27 sites were in the remedial action stage, and of these we found issues with two (22%), suggesting the applicants may not have entered the Brownfield Program in good faith or entered without due consideration of the significant financial costs of the remediation. Closer monitoring of certain sites in the program and exercising its authority to terminate Brownfield Program participation when DEC determines owners are not acting in good faith could promote more efficient cleanup and revitalization of brownfields.

Remediation Delays

Delays With Significant Threat Sites

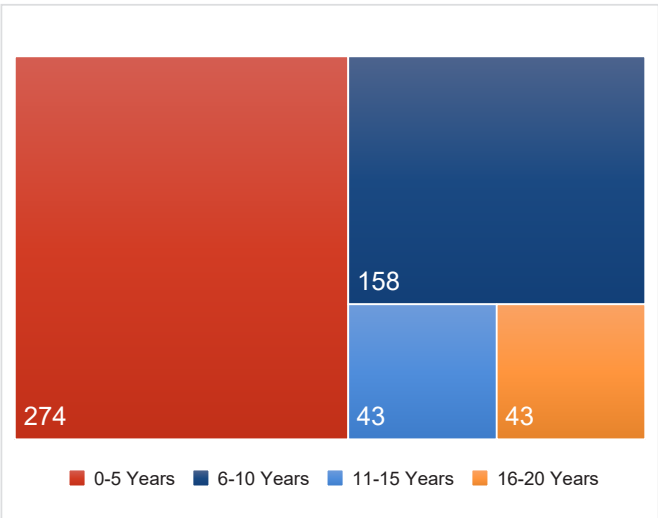
For some sites in the Brownfield Program that posed a significant threat to human health and the environment, the amount of time elapsed since entering the program without completing remediation does not seem reasonable.

For the 669 Brownfield Program sites active as of October 2023, we calculated how long each site has been in the program. Due to data and timing issues, we were able to calculate this for only 518 of the 669 sites.

The 518 sites have been active in the Brownfield Program for an average of 6.1 years, with most active for fewer than 10 years (432 sites or 83%), as shown in Figure 2. However, 86 sites (17%) have been active for more than 10 years—some entering the program as far back as March 2004.

We selected 25 Brownfield Program sites that have been active the longest—between 17 and 19.5 years—and reviewed documentation available on DEC’s public document repository to determine why remediation at each site has taken a significant amount of time to complete. Of the 25 sites, we identified 11 with lengthy remediation delays that did not appear to be

Figure 2 – Time Elapsed for Active Program Sites



reasonable and DEC officials indicated that four (16%) of those sites posed a significant threat to the public health or environment⁴ (equivalent to Class 2 sites in the Superfund Program).

Reasons for delays were unique to each site and included, but were not limited to:

- Remedial actions failing
- DEC rejecting certain reports submitted by the applicant
- Owners experiencing financial difficulties that delayed progress
- General lack of progress

In one instance, DEC referred a Brownfield Program Volunteer to DEC's Office of General Counsel multiple times before, according to DEC, the Volunteer completed a remedial investigation and prepared a draft remedial action work plan. In another instance, site owners that entered the Brownfield Program in May 2006 as Volunteers received multiple Opportunity to Cure letters over a lack of progress before informing DEC in 2020 that they were no longer financially able to continue remediation. In 2021, 15 years after entry into the Brownfield Program, the site moved to the Superfund Program for remediation. DEC officials stated that soil and groundwater sampling was completed between October and December 2024 and sediment sampling was scheduled to be completed in spring 2025—19 years after the site first entered the Brownfield Program.

Although time frames for project completion are outlined in Agreements and DEC work plans, DEC lacks specific policies or other such guidance documents that communicate to project managers criteria or time frames for reviewing project activity against expected outcomes and when to take appropriate action over a lack of progress. Instead, this is done through tracking reports and meetings with supervisors and management and may be determined on a case-by-case basis. Although sites and situations are unique, DEC should develop policies and/or guidance documents to assist project managers in determining when amended remedial schedules, program termination, using the Superfund Program, or taking other actions would be the most effective remedy for lack of progress.

In response to our preliminary findings, DEC officials agreed that, for sites that pose a significant threat, development of additional procedures pertaining to remedial progress of sites may be warranted and they proposed changes to regulatory language to address our recommendations.

⁴ Due to the volume of documentation and how it is maintained, we could only determine that four of the 11 sites posed a significant threat. Some of the remaining seven may also pose a significant threat, but we could not definitively make this determination.

Sites Entering the Brownfield Program After Receiving a Notification Letter

According to the Environmental Conservation Law, DEC may defer listing a Potential Site on the Registry if the site is the subject of negotiations for, or implementation of, an Agreement under the Brownfield Program, and the individuals subject to the Agreement act in good faith and comply with the Agreement's terms. Therefore, owners who receive a Notification Letter (which offers them the option to enter the Brownfield Program as an alternative to the Superfund Program) may enter the Brownfield Program to realize tax benefits, obtain liability relief, and/or avoid having their property potentially listed on the Registry under the Superfund Program. However, owners avoiding Superfund Program consequences through entry into the Brownfield Program may not adequately consider the potentially significant financial costs of remediation under the Brownfield Program. Because DEC doesn't review financial viability of Brownfield Program applicants, regardless of how they enter the program, there is an increased risk that owners will not realistically be able to meet the program's remedial requirements.

We were unable to identify all the sites that entered the Brownfield Program after receiving Notification Letters because this information is not easily identifiable in DEC's data. However, between September 2018 and July 2024, we identified 27 potential Registry sites that entered the Brownfield Program that could have been possibly remediated through the Superfund Program if found to be significant threats.

We also compared how long the 27 sites that could have been possibly remediated through the Superfund Program have been active in the Brownfield Program, as of December 2024, to the average time to complete remediation for the 466 program sites that had received Certificates of Completion as of October 2023. The 466 sites took an average of 4.4 years to complete. For the 27 sites, those in the remedial investigation stage (18) had been in the program for an average of 2.9 years, and sites in the remedial action stage (nine) had been in the program for an average of 3.8 years. As these sites have yet to be completed, and many are still in the investigation stage, it is likely that most of these sites will take longer to remediate than the average of 4.4 years it took to complete the 466 sites.

Delays in completing the remediation at these sites have occurred for various reasons; however, of the nine sites in the remedial action stage as of December 2024, we found issues with two (22%), suggesting the applicants may not have entered the program in good faith or entered without due consideration of the significant financial costs of the remediation.

For one site, a dry-cleaning business in Brooklyn, there were multiple delays, partly the result of financial difficulties. The timeline of this project is as follows:

- In January 2015, a consultant from a neighboring property identified soil vapor contamination during an investigation for a property transfer, determined that the contamination was likely emanating from the adjoining property, and contacted DEC.

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- In February 2015, DEC listed the site as a Potential Site, and in April 2016, approved the completion of a site characterization confirming that off-site samples contained consequential amounts of contamination for potential listing on the Registry and posed a significant threat to human health and the environment.
 - In fall 2015, under authorization from DEC, a site characterization was completed at off-site locations (i.e., areas around the site) which identified tetrachloroethene (PCE) and chloroform in the groundwater at levels exceeding quality standards. DEC's report was finalized in March 2016.
 - In July 2017, the property owners submitted an environmental site assessment to DEC which indicated the presence of "Recognized Environmental Conditions" including the presence of PCE in indoor air at levels exceeding State Department of Health Air Guidance Values and the storage of two 275-gallon storage tanks in the basement located in areas of broken and discontinuous concrete with visible leaks and observed soil contamination.
 - In March 2019, under a consent order with DEC, the property owners submitted a site characterization report detailing on-site contamination, including PCE in the soil and groundwater, and PCE and trichloroethylene (TCE) in soil vapor beneath the site and in indoor air samples.
 - In April 2020, after DEC issued the site owners a Notification Letter, the owners entered the Brownfield Program as Participants. Remediation was estimated to be completed in December 2021.
 - In September 2021, with DEC's approval, the owners installed an interim remedial action—a system to vent gases from the soil beneath building slabs.
 - In June 2022, a subsequent investigation was completed and based on the results, DEC determined additional remedial action was needed because the temporary system did not fully address the contamination.
 - In August 2023, DEC approved an additional remedial solution with an estimated cost between \$282,700 and \$355,000 and estimated a new completion date of September 2024.
 - In April 2024, the owners were supposed to, but did not, submit a schedule to DEC to implement the remaining remedial actions. DEC officials stated the property owners cited financial difficulties and may not be able to complete the remediation.

More than 9 years after contamination was identified and more than 4 years after entering the Brownfield Program, this property identified as posing a significant threat to health and the environment had not been remediated.

We also found additional problems with this site's program participation. For instance, according to DEC, property owners are required to provide written notice to DEC at least 60 days prior to the transfer of title to all or part of a Brownfield Program site. However, we found the owners subject to the Agreement transferred 50% ownership of the property to their children in May 2023. In September 2024, we asked DEC officials if the owners notified them of the change in ownership and

found DEC was unaware. DEC responded to our preliminary findings that officials had several calls with the owners of the site and worked with an administrative law judge to resolve some of the remediation delays, which resulted in DEC approving a revised schedule to implement the remediation beginning in spring 2025.

Another project, a former dry-cleaning business in Westchester County, also experienced significant delays and the applicant did not adequately disclose certain factors to DEC when they applied for the Brownfield Program. The timeline of this project is as follows:

- In November 2018, DEC staff reopened a prior oil spill remediation project (closed by DEC in 2016) to determine if the previous remedial action was sufficient to reduce the contamination.
- In February 2019, DEC issued a Notification Letter to the current owners (who purchased the property in October 2018).
- In January 2021, after hiring a consultant to conduct multiple investigations, which found elevated concentrations of chlorinated solvents in the groundwater, soil vapor, and ambient air, the owners entered the Brownfield Program as Volunteers.
- In October 2021, DEC approved a remedial investigation work plan to determine the nature and extent of contamination.
- Between November 17 and 18, 2021, field work for the work plan was completed. However, during the remedial investigation on November 18, 2021, DEC staff made an observation that resulted in the identification of an unauthorized and improper disposal of waste PCE in the dry-cleaning tenant's space (i.e., the applicant's tenant). Additional air sampling not included in the work plan found elevated levels of PCE, Cis-1,2-dichloroethylene, TCE, and methylene chloride in soil vapor and indoor air in tenant spaces, necessitating the immediate mitigation for the protection of human health. The unauthorized disposal activities immediately ceased.
- In February 2022, due to the improper disposal and consequential amounts of contamination in the tenant spaces, DEC amended the owners' Agreement, recategorizing them as Participants after determining that the information they provided on their initial applicant status was "materially inaccurate."
- In April and June 2022, the owners' consultant submitted plans for implementing interim remedial actions, including excavation of soil beneath the former dry-cleaning tenant space and installation of seven systems designed to vent gases from beneath building slabs. These plans required an additional site characterization, design documents, and pilot studies prior to completing remedial actions.
- As of February 2025, DEC was awaiting construction completion reports for several remedial actions DEC said the owners implemented, including installation of five of the seven venting systems and a soil vapor extraction system.

Impacts of PCE and TCE

Significant exposure to PCE and TCE poses harmful effects to humans, including cancer, kidney dysfunction, and respiratory and immune system issues.

Six years after the initial investigation finding new contamination and 3 years after finding evidence of ongoing contamination, the site had not been fully remediated.

DEC takes the same actions to track and expedite site progress for all sites that enter the Brownfield Program, even those that receive Notification Letters. However, as we noted for the other sites that appeared to be unnecessarily delayed, DEC should develop core policies and/or guidance documents to allow project managers to consistently review progress and determine what constitutes a lack of progress, and then develop solutions. Further, we recommend that DEC more closely monitor these sites and determine when to exercise its authority to terminate program participation for cause if owners do not act in good faith to comply with the Agreement such as failing to initiate, proceed with, or complete the remedial program in accordance with its schedule, especially for sites that pose a significant threat to human health or the environment.

Public Availability of Remedial Site Data

DEC tracks remedial activities through two main internal databases: the Unified Information System and DECDocs. The Unified Information System tracks and stores remedial site information entered by DEC staff, such as each site's code, name, classification, location, contaminants, milestones, and a summary of remediation efforts. DECDocs is a file repository for site-related documentation, such as draft documents, reports, email communications, internal memos, and site notes. Separately, DEC maintains its public, online, searchable Environmental Remediation Database of sites being addressed under any of DEC's remedial programs, including the Brownfield and Superfund Programs. The database, updated nightly, is available on DEC's website and includes the Registry.

DEC's website indicates that the Environmental Remediation Database contains information going back to January 1978. Furthermore, the database includes a link to access and review certain site-related administrative documents (e.g., Brownfield Program applications, Agreements, remedial investigation reports) through DEC's DECInfo Locator.

We identified a few sites for which site-related documents were not available in DECInfo Locator. We randomly selected 50 Brownfield Program sites from a total of 1,125 active or completed sites and found no documents available in DECInfo Locator for four completed sites. We notified DEC, which uploaded documentation for two of the four sites. However, as of January 2025, the other two sites still lacked site-related information in DECInfo Locator.

More complete information in DECInfo Locator regarding program participation would provide greater transparency to the public on the presence and remediation of brownfields.

DEC officials stated that they have started working with the Office of Information Technology Services to update the DECDocs software to more easily transfer documents to the DECInfo Locator. Additionally, DEC will begin posting a modified disclaimer on its website indicating that documentation may be available upon request.

Recommendations

1. Develop policies or guidance that communicates to project managers more specific criteria and time frames for determining appropriate progress and possible actions to ensure effective and timely cleanup for sites that pose a significant threat to health and the environment. The policies or guidance should include direction on when program termination is necessary and what circumstances constitute lack of progress, especially in cases where DEC determines the applicant is not acting in good faith to adhere to the Agreement.
2. Work with the Office of Information Technology Services to complete the transfer of site-related documents for active Brownfield Program sites.

Audit Scope, Objective, and Methodology

The objective of this audit is to determine whether DEC is effectively administering and monitoring the Brownfield Program in accordance with requirements. The audit covered the period from January 2019 through January 2025.

To accomplish our objective and assess related internal controls, we reviewed State laws, regulations, and policies and procedures in relation to DEC's administration of the Brownfield Program and Superfund Program. We also interviewed DEC officials to understand their oversight of the Brownfield Program and to discuss the statuses of specific sites selected for review.

We obtained and reviewed 178 Notification Letters issued between January 2019 and February 2024, compared these sites to active Brownfield Program sites, and identified 19 sites that were active in the Brownfield Program. We analyzed Brownfield Program and Superfund Program data from DEC's Unified Information System to determine if sites were included in both programs and identified an additional 12 sites that were initially potential Superfund Program sites but entered the Brownfield Program. Lastly, DEC officials informed the auditors of two additional sites that were potential Superfund Program sites but entered the Brownfield Program. In total, we identified 33 sites that were potential Superfund Program sites but then entered the Brownfield Program. Of these, we identified 27 that had remedial activity (e.g., remedial investigations, remedial actions) as of December 2024. We used DECInfo Locator to obtain and review applicable site-related documents, such as Brownfield Program applications, Agreements, remedial investigation reports, and remedial action reports.

We reviewed Brownfield Program Unified Information System data to determine how long sites have been in the program or how long sites took to complete. Of the 669 active Brownfield Program sites as of October 2023, we calculated how long each had been in the program, based on DEC Unified Information System data obtained in April 2023. Due to the timing differences between when we obtained the data and when we pulled program site data (e.g., new sites entered the program after we obtained DEC data), as well as sites being terminated or denied entry to the program, we reviewed data for 518 sites. We also compared the average time to complete remediation, as of October 2023, of the 466 sites issued Certificates of Completion to the average time the 27 sites have been in the program as of December 2024.

We used a non-statistical sampling approach to provide conclusions on our audit objective and to test internal controls and compliance. We selected random and judgmental samples. However, because we used a non-statistical sampling approach for our tests, we cannot project the results to the respective populations, even for the random samples. Our samples, which are discussed in the body of the report, are as follows:

- A random sample of 50 out of 1,125 Brownfield Program sites that were either active or completed as of October 2023 to determine if documents were available on DECInfo Locator.

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- A judgmental sample of 25 active sites out of the 518 active Brownfield Program sites for which we had remedial activity data based on length of time in the program. We calculated the time between the application approval end date and October 12, 2023. We selected 25 sites that have been in the program the longest.

We obtained data from the Environmental Remediation Database, specifically the Unified Information System, and assessed the reliability of that data by reviewing existing information, interviewing DEC officials knowledgeable about the system, and tracing to and from source data, where applicable. We determined that the data from the Unified Information System was sufficiently reliable for the purposes of this report. Certain other data in our report was used to provide background information. Data that we used for this purpose was obtained from the best available sources, which were identified in the report. Generally accepted government auditing standards do not require us to complete a data reliability assessment for data used for this purpose.

Statutory Requirements

Authority

The audit was performed pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. These duties could be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our professional judgment, these duties do not affect our ability to conduct this independent performance audit of DEC's oversight and administration of the Brownfield Cleanup Program.

Reporting Requirements

We provided a draft copy of this report to DEC officials for their review and formal written comments. We considered their response in preparing this final report and have included it in its entirety at the end of the report. Although DEC officials disagreed with certain aspects of the report and offered explanations in response, they generally agreed with the recommendations and have indicated actions they will take to address them.

Within 180 days after final release of this report, as required by Section 170 of the Executive Law, the Commissioner of the Department of Environmental Conservation shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

Agency Comments



Department of
Environmental
Conservation

KATHY HOCHUL
Governor

AMANDA LEFTON
Acting Commissioner

MAY 2 2025

Heather Pratt
Office of the State Comptroller
Division of State Government Accountability
110 State Street – 11th Floor
Albany, New York 12236-0001

Dear Heather Pratt:

The New York State Department of Environmental Conservation (DEC) has reviewed the Office of the State Comptroller's Draft Audit Report *Brownfield Cleanup Program*.

DEC's comments with respect to this report are contained in the enclosed document. Please contact Andrew Fischler, Director of Internal Audit, at (518) 402-9761 if you have any questions regarding our response.

Sincerely,



Amanda Lefton
Acting Commissioner

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**Department of Environmental Conservation
Brownfield Cleanup Program
2022-S-26
Response to OSC Draft Report**

The New York State Department of Environmental Conservation (DEC) has reviewed the Office of the State Comptroller's (OSC) April 2025 draft audit report on DEC's Brownfield Cleanup Program (BCP) and appreciates the opportunity to respond.

DEC's Division of Environmental Remediation (DER) is responsible for the implementation and oversight of the BCP. Since the program's inception, DER experts have aided in and overseen site owners' remediation of more than 1,300 sites, including over 700 that achieved their cleanup objectives and were awarded certificates of completion. Many of those sites have been redeveloped into residential and commercial projects, enhancing and revitalizing the communities within their surrounding areas. A December 2023 report on the economic impact of New York State's tax incentive programs concluded that the benefits of the BCP amounted to an estimated 96,900 jobs created and \$219 million generated in direct state taxes and total state taxes of \$483 million.

DEC is committed to effectively overseeing the cleanup of contaminated sites in the state using the tools provided through the BCP and State Superfund Program to protect public health and the environment. Every site in either cleanup program is carefully and adaptively managed on a site-by-site basis to address the contamination found and ensure cleanup actions progress appropriately based on the data collected through investigation and monitoring of each site.

Overall, as the audit report demonstrates, DEC has a proven track record of successfully implementing the BCP. Even though the audit's few findings are premised on just 38 BCP sites, which represent a minority (6%) of the active 669 program sites, DEC agrees that exceptions noted within the report identify improvement opportunities to further enhance internal controls over the program that will aid DER staff to administer the program more efficiently and effectively.

DEC will take appropriate action to implement recommendations cited in the report, and DEC's response to the report's findings and recommendations is as follows.

Findings

- A review of 518 active Brownfield Program sites showed that 25 have been active between 17 and 19.5 years, some posing a significant threat to health and the environment, and 11 having delays that did not appear reasonable.

DEC Response:

- There is there no correlation between time spent in the BCP and the amount of time it takes DEC to address threats to public health and the environment. If site conditions pose a direct public health or environmental threat, such as indoor air contamination or water contamination emanating from a site, the applicant must act immediately and implement remedial measures to mitigate the condition causing the threat. If the applicant lacks

progress implementing appropriate remedial action, DEC takes swift action to protect the health and safety of the public by commencing enforcement, proceeded by site termination from the program (if warranted), and the initiation of remedial action by DEC.

- Significant threat sites pose an actionable risk to public health or the environment, and regardless of remedial program participation, the contamination in question is dealt with as swiftly as possible.
 - The sites that have been in the Brownfield Cleanup Program for more than 17 years are an anomaly and represent less than four percent of active program sites. Any contamination at these sites that posed a significant threat have been addressed. Additionally, each site has unique circumstances, at times causing lengthy and complex remediation activities, and all sites are actively progressing towards meeting their cleanup objectives.
- Twenty-seven sites that entered the BCP and had remedial activity could have possibly been remediated through the State Superfund Program, but site owners chose to apply for the BCP after receiving notification from DEC of the option to do so. Of the nine sites in the remedial stage as of February 2024, two had issues that suggested the applicants may not have entered the BCP in good faith or without due consideration of the significant financial costs of the remediation.

DEC Response:

- DEC cannot prohibit a property owner from applying to the BCP.
- If contamination at a State Superfund Program site is not present at actionable levels, it will not undergo remediation under that program. However, remediation is required for all sites in the BCP, even those with levels not requiring action under the State Superfund Program. As a result, it is advantageous for sites with lower contamination levels to remain in the BCP, even if there are impacts to the timeline as the project advances through the cleanup stages.
- The New York State Finance Law requires DEC to undertake all reasonable efforts to secure a voluntary agreement from responsible parties before using state funds to finance a remedial program at a site. As a result, DEC offers participation in the BCP to owners or responsible parties at potential hazardous waste sites to ensure proper fiscal management of State Superfund Program funding.
- DEC administers its remedial programs in accordance with statute, the statute's intent, and regulation, which requires that DEC attempt to secure a cleanup agreement with a responsible party before committing state funds.
- DEC does not have the statutory authority nor the resources to determine an applicant's or prospective program enrollee's ability to pay cleanup costs, which are unknown at the time of program application. If a BCP applicant is unable to pay costs associated with cleanup, they can voluntarily withdraw from the program. If a significant threat exists, and a lack of funds or any other reason delays remedy implementation, DEC would terminate the site from the program and address the contamination through the State's Superfund Program.

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- The report suggests the 27 sites could have been remediated quicker through the State Superfund Program but does not provide comparable statistics regarding the average time to remediate a State Superfund Program site, which is 11 years. In addition, cleanup under the State Superfund Program requires a higher threshold for contamination, which leaves remediation via the BCP as the only option for sites that do not pose a significant threat to public health or the environment. Approximately two-thirds of all BCP sites do not qualify for State Superfund Program remediation.

Recommendations

1. Develop policies or guidance that communicates to project managers more specific criteria and time frames for determining appropriate progress and possible actions to ensure effective and timely cleanup for sites that pose a significant threat to health and the environment. The policies or guidance should include direction on when program termination is necessary and what circumstances constitute lack of progress, especially in cases where DEC determines the applicant is not acting in good faith to adhere to the agreement.

DEC Response:

- DEC will update project manager guidance documents to incorporate time requirements for site progress and conditions warranting specific action.
2. Work with the Office of Information Technology Services to complete the transfer of site-related documents for BCP sites.

DEC Response:

- DEC will work with the Office of Information Technology Services to improve timeliness of posting BCP site documentation to DEC's public database.

Contributors to Report

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