

**South Carolina  
Drycleaning Facility Restoration Trust Fund**

# **PROGRAM STATUS REPORT**

## **Fiscal Year 2023**

**Prepared for Gov. Henry McMaster  
and the Members of the S.C. Legislature**



Prepared by the S.C. Department of Health and Environmental Control

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# Introduction

This report is provided to the South Carolina General Assembly as required by Article 4 of Title 44, Chapter 56 of the 1976 Code of Laws [Section 44-56-430 (A)], herein referred to as the South Carolina Drycleaning Facility Restoration Trust Fund Act (Act).

The report contains the financial obligations and a 5-year budget projection as well as a summary of activities for fiscal year (FY) 2023 (July 1, 2022, through June 30, 2023).

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## Acronyms & Definitions

<b>Act</b>	The South Carolina Drycleaning Facility Restoration Trust Fund Act of 2013
<b>ACOR</b>	Annual Certificate of Registration
<b>DFEC</b>	Drycleaning Facility Exemption Certificate
<b>DFI</b>	Detailed Facility Investigation
<b>DOR</b>	South Carolina Department of Revenue
<b>Dry-Drop</b>	A retail store which collects items to be drycleaned at a remote location
<b>EIA</b>	Expanded Initial Assessment
<b>Existing</b>	A drycleaning facility that started operations before November 24, 2004
<b>Former</b>	A drycleaning facility that ceased operations before July 1, 1995
<b>Fund</b>	The South Carolina Drycleaning Facility Restoration Trust Fund
<b>FY</b>	Fiscal Year
<b>New</b>	A drycleaning facility that started operations on or after November 24, 2004
<b>NFA</b>	No Further Action
<b>Opt-Out</b>	A facility not subject to the Act, or eligible for the Fund, in accordance with 44-56-425
<b>PCE</b>	Tetrachloroethylene (Perchloroethylene, or “perc”); a halogenated drycleaning fluid
<b>DHEC</b>	South Carolina Department of Health and Environmental Control
<b>Stoddard</b>	A non-halogenated petroleum based drycleaning fluid
<b>VIP</b>	Vapor Intrusion Pathway

## Acknowledgements

The South Carolina Drycleaning Facility Restoration Trust Fund Program Status Report is submitted by the S.C. Department of Health and Environmental Control (DHEC) in compliance with S.C. Code Section 44-56-430(A). Additionally, Act 119 of 2005 mandates that agencies provide all reports to the General Assembly in an electronic format.

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## Web Links

A web page for DHEC’s Drycleaning Facility Restoration Trust Fund Program (DFRTF) can be found at [scdhec.gov/environment/lw/drycleaners/](https://scdhec.gov/environment/lw/drycleaners/). Information and resources that can be found on the DFRTF Program page include:

- **Laws and regulations** (South Carolina Drycleaning Facility Restoration Trust Fund Act [See Article 4], and South Carolina drycleaning facility restoration regulations);
- **State Coalition for the Remediation of Drycleaners** (U.S. EPA);
- **South Carolina’s drycleaning sites by priority groups;** and
- **DHEC forms for drycleaners.**

# Background

## SECTION 2

The South Carolina General Assembly created the South Carolina Drycleaning Facility Restoration Trust Fund (Fund) in 1995 to address environmental contamination resulting from drycleaning activities in South Carolina. The Act was revised in 2004, 2009, and again in 2013.

The Fund was created to protect drycleaners from financial liability caused by environmental problems at their facilities. The Act provides that monies from the general fund shall not be used for restoration of drycleaning facilities and that all funding sources for cleanup activities must come from the drycleaning industry itself. A description of funding sources is included in Section 2.

The S.C. Department of Revenue (DOR) is responsible for drycleaning facility registration and collection of monies into the Fund. The S.C. Department of Health and Environmental Control (DHEC) is responsible for administering the Fund. The Act allows DHEC to use FUND monies for up to four staff to manage assessment and remediation of drycleaning facilities statewide. Currently, the Fund pays for 3.5 Full-Time Equivalent employees.

The most commonly used drycleaning solvents are organic solvents such as perchloroethylene (PCE, or “perc”) and petroleum-based solvents such as Stoddard solvent. There are several reasons for the presence of soil and groundwater contamination at drycleaning facilities. In the past, most drycleaning machines were “transfer” machines, where solvent laden clothes were transferred to a separate machine for drying. This provided an opportunity for solvents to be spilled onto and permeate the concrete floor and be released into the environment. Filling a drycleaning machine’s solvent tanks from drums or other containers could also result in spills, as could improper storage or handling of containers. Also, since older drycleaning machines vented solvent vapors to the atmosphere, these vapors could condense in cool weather and collect on nearby exposed soil.

Other potential sources of contamination include drycleaning wastes, such as spent solvents, distillation wastes, separator water, and used filters. Before hazardous waste regulations were enacted in the early 1980s, these wastes were commonly poured

into sewer lines, septic systems, or onto the ground. Used solvent laden filters were commonly placed on the ground to drain or into trash dumpsters, which leaked.

Currently, the Act requires that all drycleaning facilities participating in the Fund use special floor coatings around the drycleaning machines and waste storage area to prevent spilled solvents from permeating through concrete floors. Other requirements include containment pans or dikes for drycleaning machines and waste storage areas. Drycleaners participating in the Fund are required to certify every five years that their facilities meet the applicable containment requirements.

Modern “dry-to-dry” machines perform both washing and drying cycles without the need to transfer items, thereby greatly reducing the potential for release of solvents to the environment. Beginning in 2010, the Act required all “perc” drycleaning solvents to be delivered by a “closed-loop” system. A closed-loop delivery system reduces opportunities for spills and vapor loss during refilling by using a special dry-disconnect coupler. The dry-disconnect coupler permits solvent flow and vapor return in one self-contained unit.

Furthermore, there is a growing trend among drycleaners to manage a series of remote “dry-drop” locations. A driver picks up clothes to be cleaned from the “dry-drop” location and brings them to a central “wet” drycleaning operation. The driver then returns the cleaned clothes to the “dry-drop” location.

Finally, the newer drycleaning machines are much more efficient in their use of solvents, reducing the amount of solvent used due to fewer losses to the atmosphere, and reduced disposal costs due to reduced volumes used.

While improvements in industry practices will not remove contamination that has already been released into the environment, these preventive measures will greatly reduce the probability and scope of future releases. This allows the Fund to focus on cleaning up the past environmental releases with the expectation that far fewer new releases will occur.



# Eligibility

Eligibility for the Fund is dependent upon several factors, listed in Section 44-56-470 (B). Revisions to the Act in 2013 allowed an additional 115 facilities to be potentially eligible for the Fund. These facilities were not eligible previously because either the registrants did not have access to the properties, or the initial samples did not show evidence of contamination. The revised Act included an application deadline of December 21, 2014 for former and existing facilities.

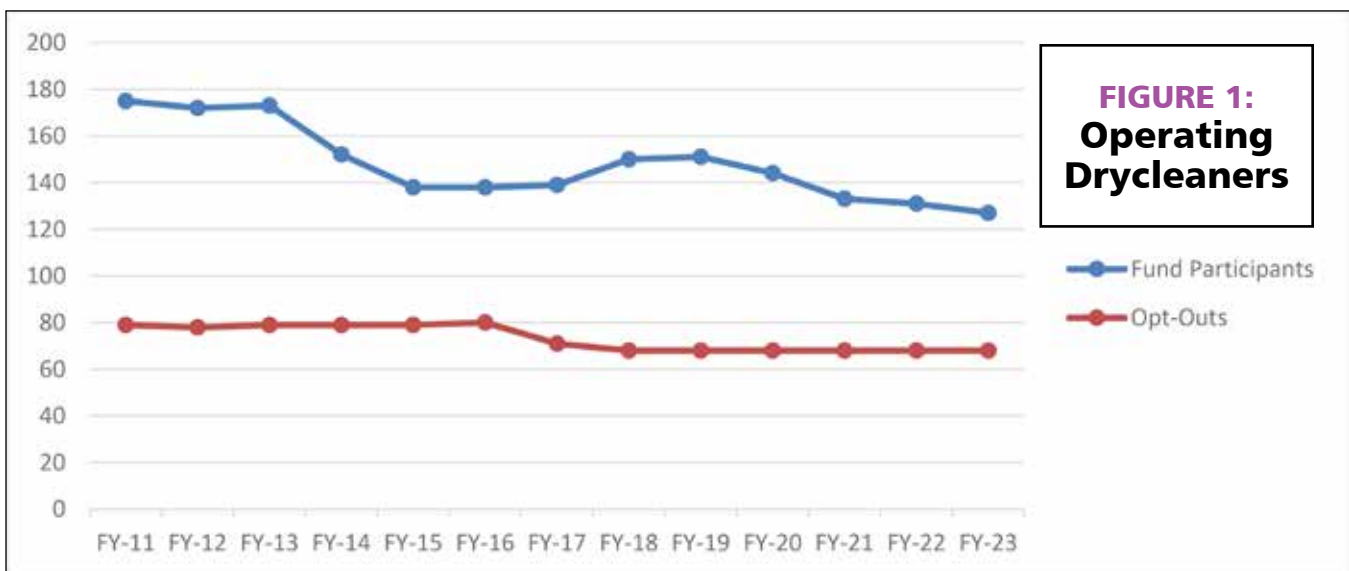
When the Fund was created in 1995, several hundred drycleaners registered with DOR and applied to DHEC for eligibility. Drycleaners who used petroleum-based solvents were given a one-time opportunity in 1995 to “opt-out” of the Fund. These businesses are not required to pay the annual registration fees or surcharges paid by participating drycleaners, but they will not be able to access the Fund if contamination from their facilities is discovered. As of June 30, 2023, there were 405 sites eligible for funding – 128 of which were operating. (See Figure 1.) There are 135 drycleaning facilities that have elected to “opt-out” of the Fund – 68 of which were operating at the end of FY23. All new drycleaning facilities that opened on or after November 24, 2004 are required to participate by paying into the Fund regardless of the type of solvents used.

Revisions to the Act in 2009 required that a facility possess either an Annual Certificate of Registration

(ACOR) or a Drycleaning Facility Exemption Certificate (DFEC – for opted-out facilities) in order to receive shipments of drycleaning solvent. The ACOR is issued by DOR annually when the facility registration fees are paid. The 2009 revisions to the Act required opt-out facilities to obtain a DFEC between July 1, 2009 and December 31, 2009. Both certificates apply uniquely to the registration location and cannot be transferred to a different location.

Prior to the 2013 revisions to the Act, DHEC had performed an investigation at every eligible drycleaning site in South Carolina and found contamination at a majority of these sites. Review of the results of these investigations indicated that groundwater contaminated by drycleaning operations had, in some cases, impacted public or private water supplies. When impacts to drinking water are identified, DHEC immediately takes steps to eliminate the risk of human exposure to contaminants, usually by providing an alternative source of drinking water.

Sufficient funding is not available to address contamination at all sites. Therefore, DHEC prioritizes sites for future work based on actual or potential risks to human health and the environment. Prioritization criteria are outlined in both the Act and in Regulation 61-33, Subpart D. This process is described in greater detail in Section 4 of this report.



# Fund Status & Five-Year Funding Projection

## SECTION 4

### Funding Sources

Revenue for the Fund is currently derived from four sources, all of which come from the drycleaning industry:

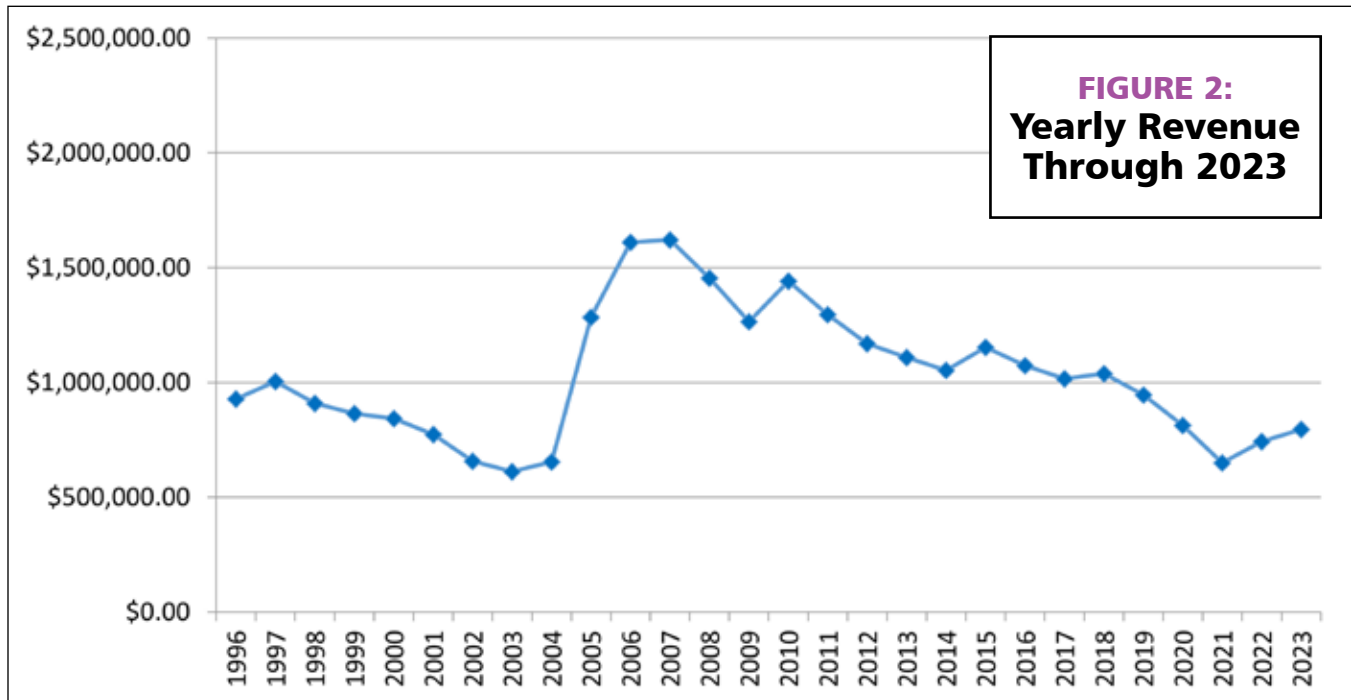
- **Annual registration fees;**
- **Surcharges on drycleaning solvents;**
- **Facility deductibles**, which range from \$1,000 to \$25,000; and
- **A 1 percent surcharge on the gross proceeds of retail sales** of laundering and drycleaning services, which has been in place since FY05.

Annual registration fees apply to operating drycleaning facilities and vary based on the number of people employed by each business – including employees at drop-off store locations. Facilities employing up to four employees pay \$750 per year, those with five to 10 employees pay \$1,500 per year, and those with 11 or more employees pay \$2,250 per year. Currently, 128 operating drycleaning facilities in South Carolina are paying into the Fund. According to DOR, the annual registration fee revenue for FY23 was \$180,892.63.

Solvent surcharges are \$10 per gallon for halogenated solvents, such as PCE, \$2 per gallon for non-halogenated drycleaning fluids such as Stoddard solvent or Green Earth solvent, and \$0.25 per pound for non-liquid drycleaning agents. According to DOR, the solvent surcharge revenue for FY23 was \$63,047.71.

Deductible amounts are assigned to a facility based on the date the eligibility application was submitted to DHEC. The Act initially offered a \$1,000 deductible for facilities submitting an application by November 24, 2005, as an incentive to quickly bring existing or former facilities into the Fund. Existing or former drycleaning facilities submitting an eligibility application after November 24, 2005, have a deductible of \$25,000. New facilities starting operations on or after November 24, 2004 also have a deductible of \$25,000. In FY23, no revenue was received from deductible payments.

A 1 percent surcharge on retail sales of laundering and drycleaning services is collected at the point of sale, regardless of whether the store is a “dry-drop” or has a drycleaning machine on site. This surcharge produces most of the revenue for the Fund. The



**FIGURE 2:  
Yearly Revenue  
Through 2023**

1 percent surcharge is in addition to the 5 percent sales tax collected at the point of sale which goes to the South Carolina General Fund. According to DOR, the 1 percent surcharge revenue for FY23 was \$551,170.73.

New technology has the possibility of dramatically changing the drycleaning industry. The new technology does not involve the use of traditional solvents, like perc or Stoddard, but only uses water, special soaps, and specialized machines. When the specialized machines replace the old drycleaning equipment, it is no longer a “drycleaner” because there are no solvents being used to clean clothes. However, a facility location that continues to be covered by the Fund and uses the specialized machines would still be required to collect the 1 percent surcharge fee.

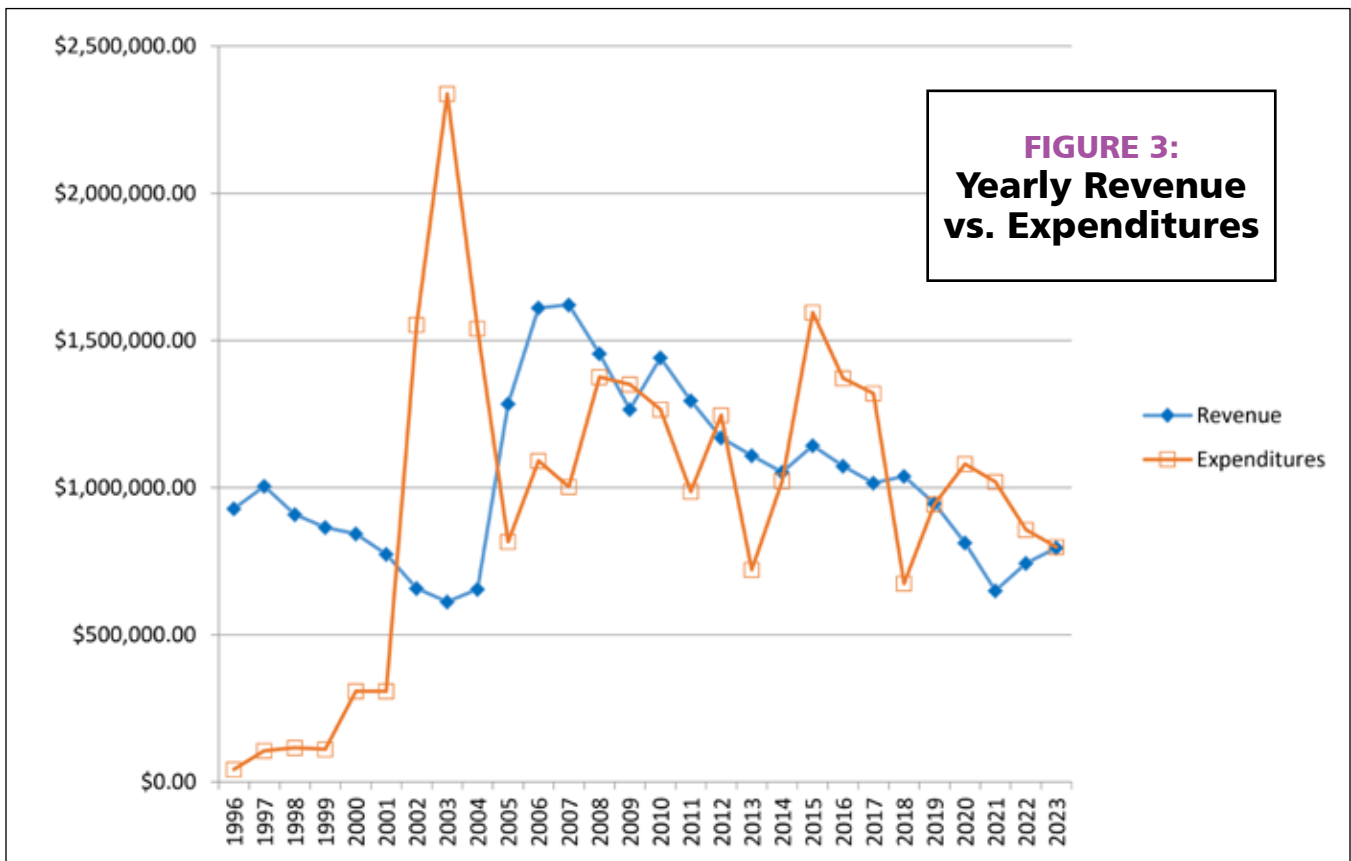
The total revenue collected by the program in FY23 was \$795,111 as compared to \$743,045 in FY22. The historical revenue trend shows revenue to the Fund declined steadily from a high in 1997 until 2003 when the 1 percent surcharge on retail sales of drycleaning services was implemented (Figure 2). With the exceptions of FY10 and FY15, revenue has generally declined since FY07. As the nation came out

of COVID-19 isolation and people began their return to the workplace, the Fund saw an uptick in revenue (from FY21 through FY23). Based on the historic trend, FY24 revenue is anticipated to remain steady and be no more than \$800,000.

The cumulative revenue from the inception of the Drycleaning Program in 1996 to the end of FY23 is \$28,779,322.17 and the cumulative expenditures are \$26,959,952.40 (Figure 3). The opening balance for FY23 was \$1,822,386.23. FY23 revenue was \$795,111 and expenses were \$798,127.46. The closing balance for FY23 was \$1,819,369.45. Allowing for outstanding commitments of \$156,469.30, the uncommitted Fund balance on June 30, 2023, was \$1,662,900.15 (see Table 1). The Fund is managed to maintain a minimum of \$750,000 for emergency corrective actions.

### Project Inventory

As of June 30, 2023, there is a total of 405 eligible sites where DHEC may obligate Fund monies for assessment and remediation. Registered drycleaners pay the fees and taxes into the fund regardless of whether a complete eligibility application has been submitted.



DHEC made one No Further Action (NFA) determination in FY23. There are 164 sites designated as NFA, leaving 241 sites where some level of additional assessment and/or cleanup work is anticipated.

### Assessment Costs

During FY23, no full delineation assessment, or Detailed Facility Investigation (DFI), was conducted. There are still 241 sites that require some level of assessment. The Program has evaluated the risk-based priority at 100 percent of the sites that would require a DFI. Though unlikely, it is possible that additional DFIs will be conducted in the future.

For cost estimate projections, up to 10 of the remaining 241 sites are anticipated to have DFI conducted. Historically, the costs for DFIs have ranged from \$51,000 to \$477,000 per site with an average cost of \$174,318. However, the average cost of the ten most recent DFIs was \$73,255. This reduction in the average assessment cost compared to previous

years is attributed to more streamlined investigation processes that have been developed based on past experiences and lessons learned.

As technological advancements continue to evolve, and management practices improve, the per-site assessment costs continue to decline. It is estimated that the average assessment cost can be kept near \$56,000 per site for the remaining 231 sites that could receive some level of assessment. Based on these assumptions, projected funding of \$13,668,550 will be needed for assessment of the remaining

Opening Balance July 1, 2022	1,822,386.23
Revenue	795,111.00
Expenses	(798,127.46)
Closing Balance June 30, 2023	1,819,369.77
Commitments	(156,469.30)
Uncommitted Balance	1,662,900.47





eligible sites. This estimated future funding amount has not been adjusted for inflation.

## Remediation Costs

Once sites are fully assessed, they will be classified as needing either an Active Remedial System, a Limited Removal Action, or NFA. NFAs are only issued to clean sites or sites with such low levels of contamination that they are not expected to impact human health or the environment.

Long-term monitoring requires periodic sampling to document the contamination is not expanding and is decreasing over time. Limited Removal Actions include removal of highly contaminated soil, passive remedies, and institutional controls that enhance cleanup and reduce expenditures while protecting human health and the environment.

Active Remedial Systems include pilot studies and cleanup system design and installation, and may include vapor intrusion mitigation/remediation systems, groundwater recovery wells, carbon filtration units, monitoring, and operations and maintenance in order to reduce risks and reach cleanup goals.

## Complete Cleanup Costs

To completely clean up groundwater, soil, and indoor air to their corresponding Maximum Contaminant Levels (MCL) or Vapor Intrusion Screening Levels (VISL) on the remaining 241 eligible sites, an average cost of \$300,000 would be required per site. However, almost all drycleaning facilities are located in heavily developed areas which have few

WORK	SITES	ESTIMATED COST/SITE	SITE TOTAL COST
Full Assessment	10	\$73,255	\$732,550
Assessment/ Monitoring	231	\$56,000	\$12,936,000
NFA	164	Work Complete	\$0
Limited Removal at 20% of 241	48	\$66,668	\$3,200,064
Indoor Air Remediation at 25% of 241	60	\$75,000	\$4,500,000
Groundwater/Soil Remediation at 1.75% of 241	4	\$300,000	\$1,200,000
			<b>\$22,568,614</b>

pathways for risk of exposure to contamination. Therefore, to ensure protection of human health and the environment while maintaining maximum stewardship of the Fund, DHEC implements remediation to risk-based cleanup goals rather than completely cleaning up soil and groundwater.

The projection of remediation funding needs is based on historic patterns where 37 percent of sites received NFA determination following assessment, 20 percent of sites required limited removal, and 25 percent of sites required active remediation. The average cost of Limited Removal Actions to date is \$66,668 per site. The average cost of Active

FISCAL YEAR	REVENUE	EXPENDITURES
1996	\$928,545.65	\$42,582.84
1997	\$1,005,142.60	\$106,383.46
1998	\$908,516.14	\$115,929.62
1999	\$864,553.81	\$111,067.06
2000	\$842,913.75	\$308,156.47
2001	\$773,511.14	\$308,078.22
2002	\$657,242.36	\$1,553,734.08
2003	\$612,189.97	\$2,337,642.77
2004	\$654,508.34	\$1,540,095.94
2005	\$1,284,353.96	\$816,404.12
2006	\$1,610,701.26	\$1,090,890.57
2007	\$1,621,127.21	\$1,003,163.01
2008	\$1,454,856.48	\$1,375,857.27
2009	\$1,265,303.68	\$1,350,910.21
2010	\$1,440,750.89	\$1,265,239.30
2011	\$1,295,766.34	\$986,750.81
2012	\$1,169,338.75	\$1,245,870.21
2013	\$1,109,546.43	\$721,003.50
2014	\$1,052,666.79	\$1,021,339.51
2015	\$1,153,199.80	\$1,594,982.97
2016	\$1,073,528.33	\$1,371,967.90
2017	\$1,015,634.34	\$1,319,952.90
2018	\$1,038,221.51	\$673,964.35
2019	\$946,282.11	\$942,976.09
2020	\$812,595.27	\$1,079,719.73
2021	\$649,540.36	\$1,019,922.01
2022	\$743,045.08	\$857,240.02
2023	\$795,111.00	\$798,127.46
2024	\$800,000.00*	
2025	\$800,000.00*	
2026	\$800,000.00*	
2027	\$800,000.00*	
2028	\$800,000.00*	

\* Estimated based on DOR receipts through June 2023

Remedial Systems has been reduced from \$500,000 to \$300,000 per site. The reduction of remedial costs is based on the latest observations. Using the assumption that costs will continue to decline in the future, the projected funding need estimates for assessment and remediation are compiled in Table 2.

## Future Liabilities

Based on expenditures to date and the above projections, DHEC estimates that a total of

approximately \$23 million will be required to conduct risk-based assessment and remediation of all eligible sites.

## Five-Year Funding Projection

The revenue projection for FY24 remains approximately \$800,000, based on DOR receipts through June 2023 (Table 3). The projected revenue to the Fund for the next five years is expected to remain steady at approximately \$800,000 per year.

# Recent Activities

## Remediation Activities

During FY23, DHEC conducted remedial work at 40 sites. The remedial work focused on vapor intrusion mitigation. A total of 973.6 pounds of PCE were removed from active remediation sites in FY23. The Program will continue remedial activities on these and other sites.

## Monitoring

During FY23, no additional groundwater and/or surface-water quality monitoring was conducted.

## No-Further-Action Sites

DHEC has made NFA determinations at a total of 164 sites where investigations have determined that drycleaning contaminants are not present at levels that require additional assessment or remediation. Provided that these facilities continue to meet the requirements of the Act, they remain eligible if evidence of contamination is discovered in the future.

## Alternative Water Supplies

The Fund will provide safe drinking water to any residence or business impacted above a drinking water standard due to contamination from a participating drycleaning site. No sites required an alternate water supply in FY23.

## Containment Certification

Containment measures are required in all areas where drycleaning solvents are used or stored for operating drycleaning facilities to qualify for the Fund.

Containment measures may include placing impermeable pans of sufficient capacity under drycleaning machinery, sealing concrete floors with epoxy paint, etc.

This topic is addressed in greater detail in "Drycleaning Containment Guidelines," available at [scdhec.gov/environment/lw/drycleaners](https://scdhec.gov/environment/lw/drycleaners).

Operating drycleaning facilities must self-certify containment measures every five years [44-56-480(A)] to ensure that containment remains effective. Failure to comply with the containment requirements constitutes gross negligence which may impact site eligibility for the Fund [44-56-480(D)].

DHEC does not routinely conduct containment inspections but may inspect facilities on a case-by-case basis. A containment certification mail-out occurred during FY23, and 98 percent of the certifications were received.

Follow-up confirmations will be conducted by DHEC at the non-reporting facilities in the coming year. The next mail out is due in FY28.

## Form Revisions

No forms were revised during FY23; no new forms were developed during FY23.

## Revisions of the Regulations

No revisions to Regulation R.61-33 were made or proposed during FY223.

# SECTION 5

# Prioritization

SECTION

6

## Prioritization Process

DHEC prioritizes sites for future funding based on available assessment information. The funding priority process categorizes sites into one of five groups and is designed to identify sites which require immediate action to eliminate the risk of actual human exposure or to prevent imminent exposure to environmental contamination.

While the priority process categorizes sites broadly, it does not prioritize individual sites within each group. Currently, all eligible sites have been evaluated using this system.

The list of sites, by group, is available at [scdhec.gov/environment/lw/drycleaners](https://scdhec.gov/environment/lw/drycleaners).

# Public Participation

SECTION

7

One of DHEC's goals is to engage the public in the selection of the final cleanup process. Community involvement in the program is important for several reasons. Primarily, it gives local residents an opportunity to have input into choosing a remedial strategy and allows them to voice any concerns they may have about the site. People living near a site may be aware of conditions that could influence the effectiveness of the available remedies. Sharing such important information can aid DHEC's understanding of the site and influence remedial decisions.

When DHEC conducts assessment activities at a site, it may be necessary to address the potential migration of contaminants onto or beneath adjacent properties. Field personnel meet with homeowners and business owners in the area surrounding the site when there is a likely risk to drinking water supply wells.

DHEC may conduct sampling to determine if the wells have been affected by contamination emanating from a drycleaner property. If drinking water supplies have been contaminated, DHEC will ensure that those impacted have access to an alternate source

of drinking water until an effective remedy to exposure is in place.

Prior to the final remedy selection, DHEC distributes information about sites and upcoming remediation activities to the public via legal notices in local newspapers, the DHEC public notice web page, and letters to area residents, local government officials, and locally elected members of the S.C. General Assembly.

DHEC schedules a public meeting at a location near the drycleaning site and advertises the time and place in a legal notice. DHEC also sends individual letters to those in the vicinity of the site. At the meeting, a DHEC spokesperson presents an overview of site conditions and explains the potential remedies that have been considered. An open forum with a question-and-answer session follows this presentation.

People are encouraged to call the program's toll-free telephone number (1-866-343-2379) if they have further questions.

