

Annual Report to the North Carolina General Assembly

Status of Leaking Petroleum Underground Storage Tanks State Cleanup Fund

**Fiscal Year 2019
(July 1, 2018 to June 30, 2019)**

**N.C. Division of Waste Management
Underground Storage Tank Section**

November 1, 2019



**NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL QUALITY**

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Executive Summary

North Carolina Leaking Petroleum Underground Storage Tank Cleanup Fund Fiscal Year 2019 (July 1, 2018 – June 30, 2019)

North Carolina's underground storage tank program is administered by the Division of Waste Management's Underground Storage Tank (UST) Section in the North Carolina Department of Environmental Quality (DEQ). The section enforces UST regulations and manages funds used to perform cleanups of petroleum UST discharges or releases (UST incidents). The program was initiated in 1988 in response to growing reports of USTs leaking petroleum into soil and groundwater. Funding for the program is provided by the Commercial Leaking Petroleum Underground Storage Tanks Cleanup Fund (Commercial Fund), the federal Leaking Underground Storage Tank (LUST) Prevention Grant, and the federal LUST Cleanup Grant.

Per N.C. General Statute 143-215.94M(a);

The Secretary shall present an annual report to the Environmental Review Commission, the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources, the Fiscal Research Division, the chairs of the Senate Appropriations Committee on Agriculture, Natural, and Economic Resources, and the chairs of the House of Representatives Appropriations Committee on Agriculture and Natural and Economic Resources that shall include at least the following:

- 1) A list of all discharges or releases of petroleum from underground storage tanks.
- 2) Repealed by Session Laws 2015-241, s. 14.16A(h), effective December 31, 2016.
- 3) A list of all cleanups undertaken by tank owners or operators and the status of these cleanups.
- 4) A statement of receipts and disbursements for the Commercial Fund.
- 5) A statement of all claims against the Commercial Fund, including claims paid, claims denied, pending claims, anticipated claims, and any other obligations.
- 6) The adequacy of the Commercial Fund to carry out the purposes of this Part together with any recommendations as to measures that may be necessary to assure the continued solvency of the Commercial Fund.
- 7) Repealed by Session Laws 2012-200, s. 23, effective August 1, 2012.

The report required by this section shall be made by the Secretary on or before November 1 of each year.

In FY 2018-19, the UST Program achieved closure for 648 commercial UST release incidents. Reimbursements to responsible parties for FY 2018-19 totaled \$6,375,951. In addition, the state-lead program that assumes management of incidents for which no viable responsible party exists performed \$4,524,130 in assessment and cleanup through its state-led contractors. The program also provided oversight and regulatory review for closure of 262 noncommercial USTs and 258 non-UST petroleum releases.

The Commercial Fund is used to provide safe alternatives to drinking water wells that have been contaminated by petroleum releases from USTs. In FY 2018-19, the UST program provided alternative water supplies, including bottled water, point-of-entry filtration systems and waterline extensions, to replace 74 contaminated water supply wells serving 259 citizens.

The North Carolina Division of Waste Management (DWM) maintains lists of all known discharges or releases from underground storage tanks, all responsible party (RP) cleanups, and cleanup status updates. These are available at: <https://deq.nc.gov/about/divisions/waste-management/ust/databases>, specifically the Incident Management Database (Regional Underground Storage Tanks). These may be viewed in both Microsoft ACCESS and Microsoft EXCEL formats. Assistance is available by contacting Scott Bullock or Linda Smith at 919-707-8200.

On October 1, 2018, the EPA Office of Underground Storage Tanks (OUST) launched an effort to reduce the national backlog of open, unresolved UST incidents. The OUST set aspirational cleanup goals for each EPA region who then evaluated the individual states and assigned state goals for the upcoming federal fiscal year. Based upon Region 4's evaluation, North Carolina's federal fiscal year goal was established at 720 total closures. Upon notification of this increased goal, Region 4 and North

Carolina's UST Section management group worked jointly to explore means to meet OUST's request. Region 4 agreed to provide approximately \$467,000 in additional federal grant funding to combine with the \$500,000 of annual state funding allowed for use in evaluating and closing low-risk sites. As of September 30, 2019, North Carolina exceeded the OUST aspirational goal with 747 total closures for the federal fiscal year, as well as providing for reimbursement of associated costs with non-directed cleanup claims for these sites as appropriate. This initiative will be on-going through FY 2019-20 or until funding is exhausted.

Commercial UST Cleanup Fund Management

In FY 2018-19, the Division of Waste Management's (DWM) Underground Storage Tank (UST) Section managed reimbursement funds for cleanup of environmental contamination from petroleum UST releases. The Commercial Cleanup Fund reimbursed the costs of cleanups of petroleum releases from commercial USTs, which are typically regulated gasoline station tanks or heating oil tanks greater than 1,100-gallons capacity. The owners of commercial USTs pay annual operating fees into the Commercial Cleanup Fund, and also pay deductible amounts toward the costs of assessments and cleanups of petroleum releases.

In FY 2018-19, the UST Section managed the cleanup funds in accordance with the requirements of N.C.G.S 143-215.94E, which directs the N.C. Department of Environmental Quality (DEQ) to give priority to cleanup of releases in emergency situations, and to those that pose the greatest risks to human health and the environment. The statute also directs the DWM to order non-emergency work only if the costs could be reimbursed by the appropriate cleanup fund within 90 days of claim approval. To meet these legislative requirements, the UST Section uses a risk, rank and abatement (RRA) scoring system that quantifies the relative risks of all releases, allowing the Section to direct work at the highest risk incidents for which costs can be reimbursed within 90 days. Each month, the UST Section staff reviews balances, expenditures and obligations of the Commercial Fund, and periodically adjusts the RRA score threshold to direct as much cleanup work as resources will allow. In FY 2015-16, as a result of implementing more intensive oversight and cost control measures, the UST Section was able to lower the RRA score threshold for the Commercial Fund for the first time since FY 2012-13. During FY 2018-19, the program could direct cleanup activities to all high-risk commercial UST releases and all but 190 intermediate-risk releases.

The two tables below summarize historic and FY 2018-19 Commercial Fund activities and accomplishments.

**Table 1
Summary of Key Statistics since UST Program Inception
(July 1, 1989 to June 30, 2019)**

Revenues and Expenditures 7/1/89 – 6/30/19		
Commercial Fund Revenues		\$ 811,171,490
Commercial Fund Expenditures		\$ 748,423,912
Historic Summary 7/1/88 – 6/30/19		
Petroleum UST Releases – Reported		
Commercial	20,663	
Noncommercial	11,789	
Total		32,452
Petroleum UST Releases - Closed Out		
Commercial	15,883	
Noncommercial	9,536	
Total		25,419
FY 2018-19 UST Activity		
Petroleum UST Releases Reported		
Commercial		234

Noncommercial	305	
Total		539
Petroleum UST Releases Closed Out		
Commercial	648	
Noncommercial	262	
Total		910

Table 2 - UST Releases Since Program Inception (FY 1989 - FY 2019)			
Commercial UST Releases		Noncommercial UST Releases	
Releases Reported	20,663	Releases Reported	11,879
RP-Lead	18,896	RP-Lead	11,573
State-Lead	1,767	State-Lead	306
Cleaned Up to No Further Action	15,833	Cleaned Up to No Further Action	9,536
RP-Lead	14,903	RP-Lead	9,354
State-Lead	930	State-Lead	182
Ongoing Cleanups	4,830	Ongoing Cleanups	2,235
RP-Lead	4,018	RP-Lead	2,235
State-Lead	812	State-Lead	0
No Action Currently Being Taken	818	No Action Currently Being Taken	108
RP-Lead	765	RP-Lead	0
State-Lead	53	State-Lead	108

Figures 1 and 2 below present a graphical representation of historic Commercial and Noncommercial cleanup activities and progress.

Figure 1 - UST Incidents & UST Incidents Closed (Cumulative)

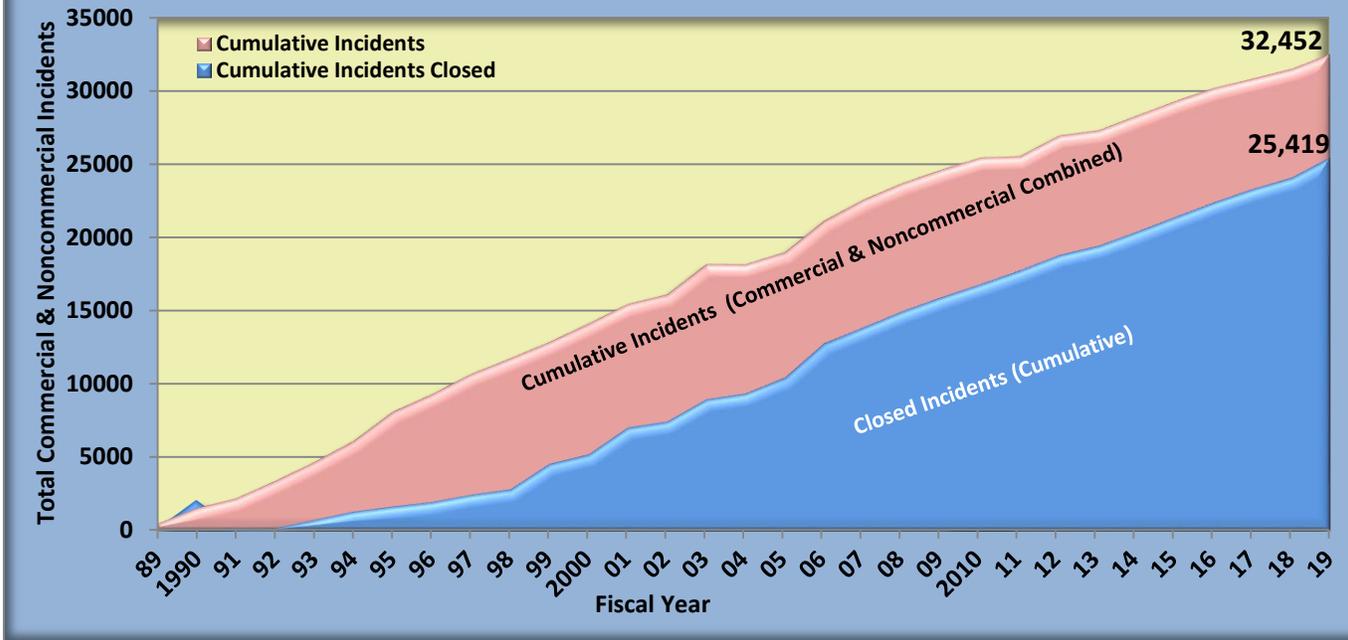
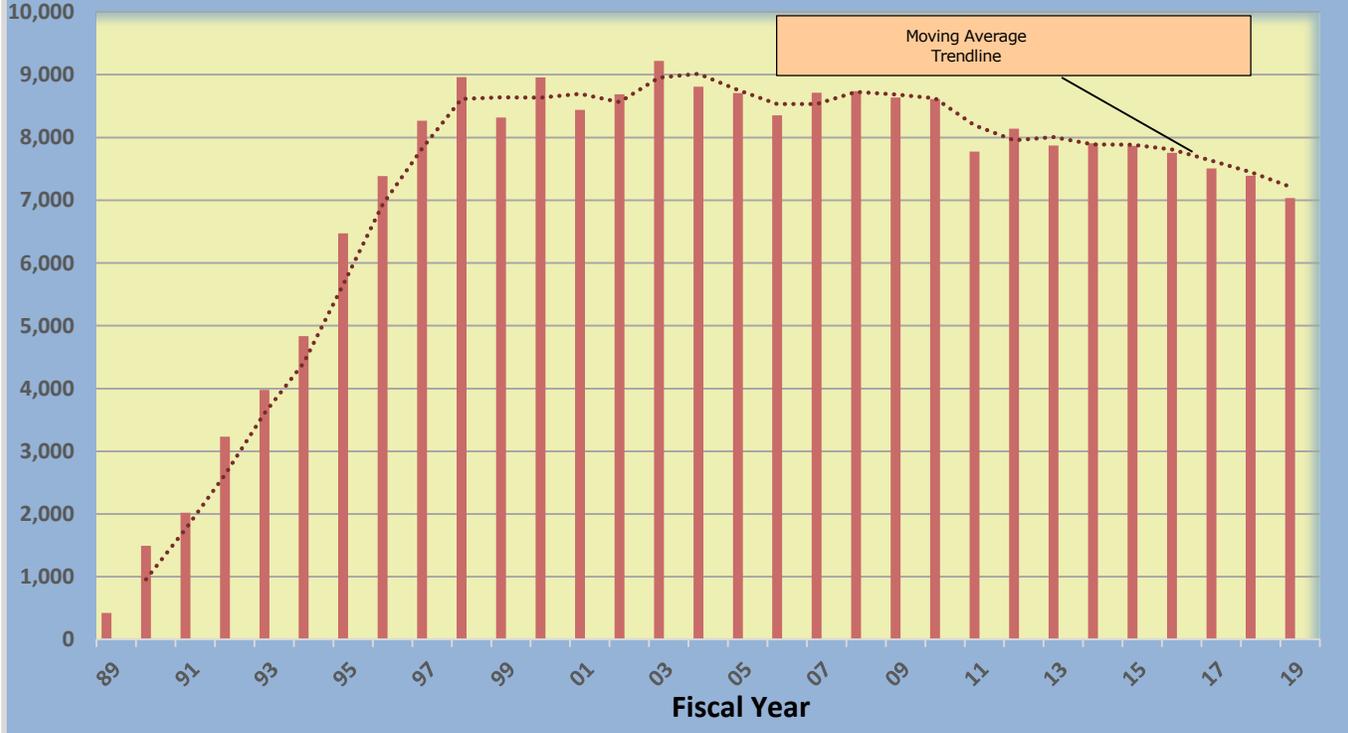


Figure 2 - Total Open Commercial and Noncommercial UST Incidents Fiscal Years (1989 - 2019)



Unfunded Noncommercial and Non-UST Release Responses

Session Law 2015-241 directed the phase-out of the Noncommercial UST Reimbursement Program, effective Dec. 31, 2016. This program primarily covered expenses associated with closure of home heating oil USTs. The session law also limited eligibility for the remaining funds to only those releases reported prior to Oct. 1, 2015. It furthered modified the necessary response to noncommercial UST releases based on DEQ risk determination. Initial abatement requirements were eliminated, and all actions at eligible sites were required to be re-authorized to ensure compliance with the new law. Session Law 2017-57 required the Environmental Management Commission (EMC) to adopt temporary rules to implement Section 14.16B of Session Law 2015-241 by Oct. 1, 2017. The necessary changes to 15A NCAC 02L Section .0400 were submitted by the DEQ and reviewed by the EMC for approval on Sept. 29, 2017. The permanent rule was readopted June 1, 2019.

No further cleanup of noncommercial releases was required for low-risk incidents or reimbursed for any incidents. However, UST Section staff are still required to review and oversee responsible party actions at all reported noncommercial UST incidents to ensure proper closure and documentation. The Section must still direct work for high-risk incidents. There were 305 noncommercial UST incidents reported during FY 2018-19 with 262 of these incidents being closed. In addition, UST Section personnel were also required to respond to 522 releases from aboveground petroleum storage tanks (ASTs) roadside, and other spills greater than 25-gallons.

These responses are unfunded through current mechanisms and result in the diversion of approximately 25 percent (or 10.5 FTE equivalents) of regional office personnel resources and funding to manage noncommercial and non-UST petroleum releases.

Commercial Fund Status

Beginning in late FY 2013-14 and continuing through FY 2018-19, the UST Section undertook an intensive re-evaluation of its risk-based closure process and instituted a more rigorous review of pre-approvals for site work. Concurrently, UST Section staff implemented an administrative review of all pending task authorizations regarding statute of limitations requirements. Implementation of these measures reversed the \$4.6 million per year average decline in Fund balance experienced between FY 2009-10 and FY 2014-15 Both cost-control measures remain ongoing, with the goal of the Commercial Fund eventually being able to cover work on all high- and intermediate-risk incidents.

For the 12-month period from July 1, 2018 through June 30, 2019, the unobligated Commercial Fund balance increased for the fourth consecutive year. On June 30, 2019, the unobligated Commercial Fund balance was \$28,518,525, which is an increase of \$1,993,563 from the FY 2017-18 unobligated end-of-year balance. Estimated Commercial Fund obligations as of June 30, 2019 are \$34,109,973, including pending state-lead cleanup contracts managed by the UST Section. Commercial Fund balance, revenues and obligations are summarized in Table 3. Distribution of revenue sources is shown in Figure 1.

Availability of funding is still subject to a site's RRA score, and the continuing inability to reimburse work on all releases, regardless of risk ranking, has both short-term and long-term impacts. In the near-term, the lack of funding means that owners of those properties may find it difficult to move forward with property transactions. In the long-term, conditions (i.e. residential/commercial development, new water supply wells) around a lower-risk release may change with time and result in an increase in the threat to public health. As of June 30, 2019, the Section is still unable to direct work at approximately 190 intermediate-risk sites.

Table 3
FY 2018-19 Commercial Fund Activity
(July 1, 2018 through June 30, 2019)

	Amount	Totals
Fund Balance on 7/1/2018	\$49,490,720	\$49,490,720
Revenues (7/1/18 – 6/30/19)		\$28,153,471
Motor Fuel & Gasoline Excise Tax	\$18,453,095	

UST Operating Fees	\$9,668,335	
State Lead Cost Recovery	\$ 32,041	
Interest	\$ 0	
Loan Fund Collection and Interest	\$ 0	
Transfer - Bernard Allen Trust Fund	\$ 0	
Expenditures		\$15,015,693
Reimbursements	\$6,375,951	
State-Lead Contracting and Laboratory	\$4,524,130	
Program Administration	\$4,115,612	
Transfers from Fund		
Transfer to Department of Agriculture	\$0	
Transfer to Federal LUST Program (cost recovery)	\$ 0	
Fund Cash Balance on 6/30/2019		\$62,628,498
Estimated Obligations¹		\$34,109,973
RP-lead Cleanup	\$3,809,485	
State-lead Cleanup – Authorized Work	\$8,875,005	
Pre-approved Non-directed Actions	\$2,277,688	
Pending State Lead Contracts	\$15,000,000	
Program Administration	\$4,147,795	
Estimated Unobligated Balance 06/30/2019		\$28,518,525

1. Estimated obligations include estimates of non-reimbursed costs for tasks not requiring pre-approval that were incurred prior to implementation of Session Law 2004-124; outstanding non-reimbursed costs for pre-approved directed tasks; requested reimbursement costs for claims under review; approved costs for claims awaiting reimbursement; non-reimbursed costs for approved non-directed tasks; and any remaining program expenses.

Figure 3
Commercial Fund Revenue Sources – FY 2018-19

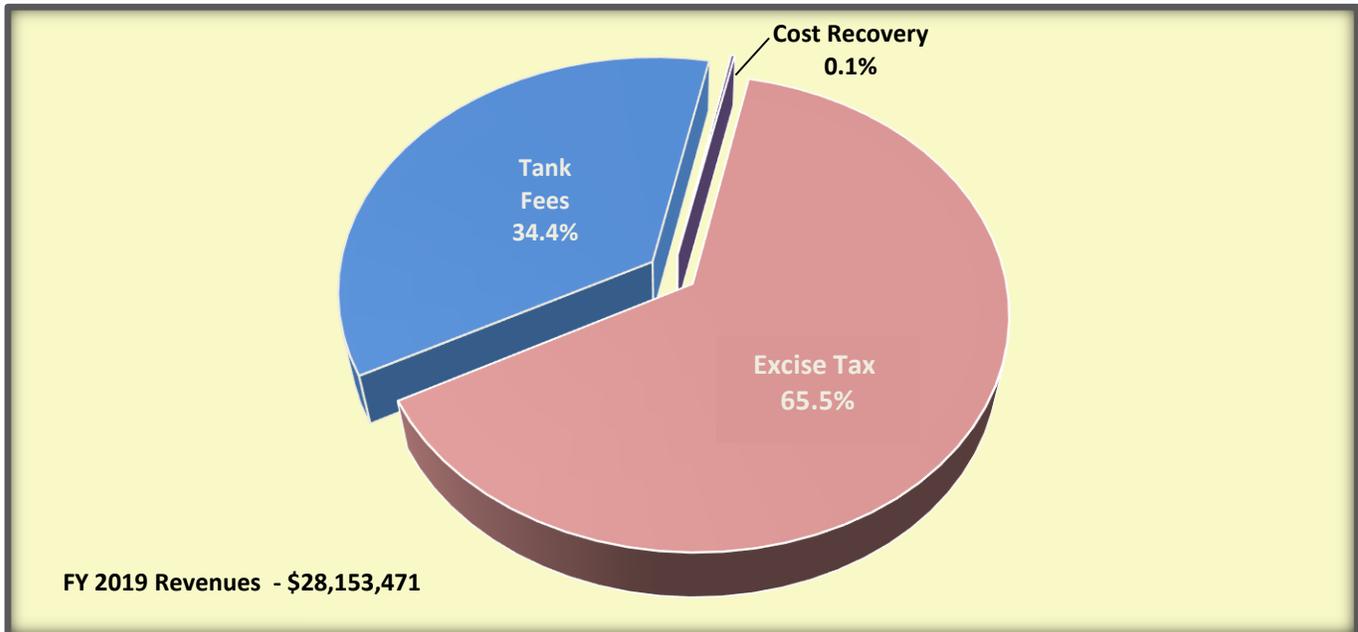


Table 4 shows the history of claims submitted, processed and reimbursed by the Commercial Cleanup Fund since 1989.

Table 4
Claims Processed for the Commercial Cleanup Fund
7/1/89 – 6/30/19

Claim Action	Number
Claims Paid	49,040
Incidents Denied Totally ¹	38
Claims Denied Partially ²	18,258
Claims Pending	25
Contracted Cleanups ³	2,445

1 Ineligible (operating fees not paid; release discovery pre-dates program)

2 Claims contain excessive or undocumented costs

3 State lead actions initiated

Table 5, on page 10, summarizes to receipts and expenditures from the Commercial Cleanup Fund since it was authorized by the North Carolina General Assembly.

Table 5
Receipts, Disbursements and Program Expenses for the Commercial Fund
7/1/89 – 6/30/19

Fiscal Year	Receipts	Disbursements ¹	Legislatively Allowed Program Expenses
FY 1989	\$ 2,337,685	\$ 14,768	
FY 1990	5,773,632	79,080	\$ 201,255
FY 1991	7,330,573	1,616,760	547,595
FY 1992	13,484,008	4,409,229	517,221
FY 1993	18,032,784	9,651,948	601,687
FY 1994	24,438,966	22,904,802	694,424
FY 1995	56,037,135 ²	37,405,510	666,270
FY 1996	28,178,768	44,060,639	2,322,632
FY 1997	28,564,034	44,163,273	2,623,339
FY 1998	27,291,220	30,267,392	2,530,036
FY 1999	26,783,344	16,104,152	2,567,668
FY 2000	27,178,623	22,820,069 ³	2,579,540
FY 2001	27,240,303	24,566,132 ⁴	2,730,236
FY 2002	27,124,210	36,872,426	2,397,264
FY 2003	27,055,759	26,498,565	2,221,851
FY 2004	26,934,685	23,514,179 ⁵	2,527,451
FY 2005	50,255,908 ⁷	46,966,083 ⁶	2,654,447

FY 2006	28,143,119	15,474,991 ⁸	2,636,228
FY 2007	27,564,837	7,372,403 ⁹	2,725,418
FY 2008	27,458,790	11,511,344 ¹⁰	2,859,460
FY 2009	31,026,131	15,007,590 ¹¹	3,380,143
FY 2010	27,969,400	17,760,225 ¹²	3,703,143
FY 2011	26,951,504	31,697,736 ¹³	3,859,161
FY 2012	26,311,956	29,132,749 ¹⁴	3,881,825
FY 2013	26,316,112	29,187,009 ¹⁴	3,960,943
FY 2014	28,222,762	27,091,769 ¹⁴	3,806,616
FY 2015	27,049,782	25,607,888 ¹⁴	3,890,089
FY 2016	26,496,737	23,616,208 ¹⁴	3,985,706
FY 2017	27,634,152	20,071,855 ^{14,15}	3,721,009
FY 2018	27,831,100	13,150,486 ¹⁴	4,018,302
FY 2019	28,153,471	10,900,081	4,115,612
TOTAL	\$ 811,171,490	\$ 669,497,341	\$ 78,926,571

1. Does not include program expenses.
2. Commercial receipts for FY 1994-1995 included \$31,288,889 that was transferred from the Groundwater Protection Loan Fund.
3. Adjustment due to a transfer from the Commercial Fund to the Federal Trust Fund of \$288,117 as a clean-up expenditure rather than as a program expense.
4. Includes \$33,866 transferred to the Federal Trust Fund for clean-up expenditure.
5. Includes transfer of \$2,036,932 from Commercial to Noncommercial Trust Funds per GS 119.18(b); transfer of \$90,000 to Department of Agriculture and Consumer Services; and transfer of \$452,722 to the Federal Trust Fund for clean-up expenditure.
6. Includes transfer of \$43,150,730 from Commercial to Noncommercial Trust Fund per GS 119.18(b). Transfer from Department of Agriculture and Consumer Services of \$38,702 to Federal Trust Fund.
7. Includes additional revenue from the 1-year 1.1 cent per gallon excise tax or \$19 million to the Trust Fund.
8. Includes \$1,922,601 transfer to Noncommercial Fund, \$90,000 transfer to Department of Agriculture and Consumer Services, and \$30,016 transfer to repay Federal Trust Fund for State Lead program expenses.
9. Includes transfer to Noncommercial Fund of \$598,935 and disbursement from the Commercial Fund to the Department of Agriculture and Consumer Services (\$90,000) and Federal LUST Grant (\$108,904).
10. Includes transfer to Noncommercial Fund of \$1,381,848, and disbursement from the Commercial Fund to the Department of Agriculture and Consumer Services (\$90,000), and Federal LUST Grant (\$53,752).
11. Includes transfer to Noncommercial Fund of \$1,004,895, and disbursement from the Commercial Fund to the Department of Agriculture and Consumer Services (\$90,000).
12. Includes disbursement to Department of Agriculture and Consumer Services of \$90,000.
13. Includes disbursements to Department of Agriculture and Consumer Services (\$90,000) and legislatively mandated transfer of interest (\$614,239.29).
14. Includes disbursements to Department of Agriculture and Consumer Services (\$90,000).
15. Includes transfer of \$1,153,783 to close out the Noncommercial Fund.

Historical Commercial Cleanup Fund balances and obligations are presented graphically in Figures 3 and 4.

Figure 3 - Commercial Fund Balance and Claims Pending & Obligations

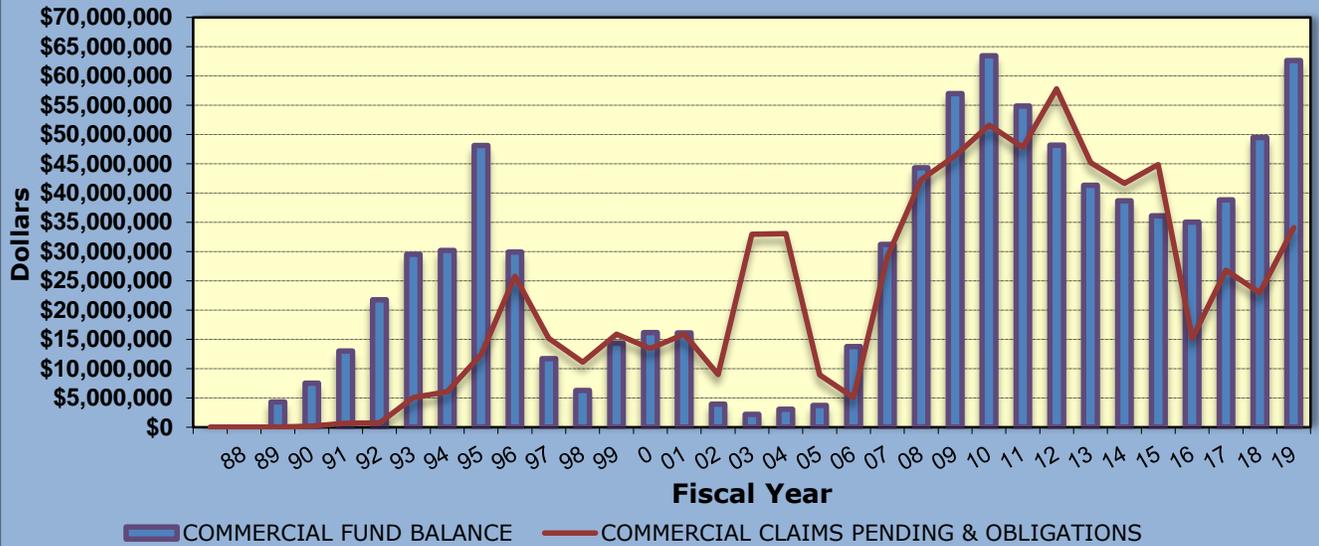
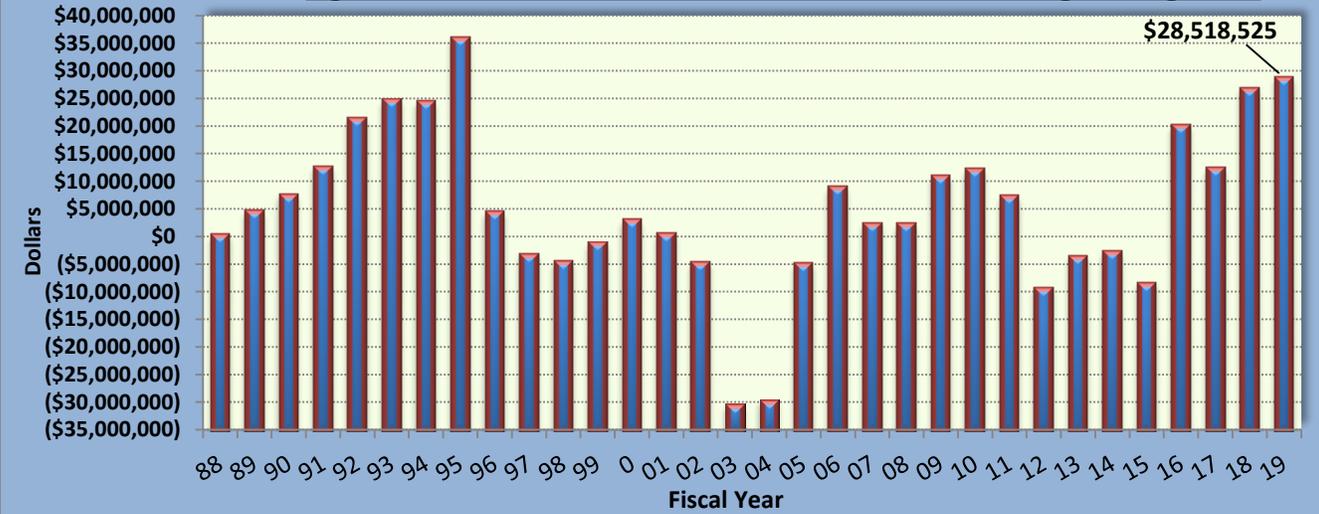


Figure 4 - Commercial Fund Balance Minus Claims Pending & Obligations



Estimated Future Costs of Clean Ups

Under new Environmental Protection Agency criteria, the DEQ can estimate the maximum potential liabilities for cleaning up all known commercial UST releases by multiplying the median cost to the Fund per release (\$136,327) for FY 2015-19 by the number of known commercial releases needing cleanup (4,830). The result is a total estimated future obligation of approximately \$658.5 million – an amount that includes about \$34.1 million obligated for cleanups already underway. Despite implementation of the more rigorous oversight and cost control measures, at current revenue levels (\$27.4 million per year on average), it will take the Fund approximately 23 years to generate the receipts necessary to pay existing projected obligations.

With a present balance of approximately \$62.6 million, the Fund will need an additional \$595.9 million to clean up all currently known commercial UST releases. This estimate does not account for the costs of cleaning up releases not yet reported (future releases). The number of reported new releases has decreased in recent years, due to increased inspection and prevention measures implemented

in 2008. In FY 2011-19, an average of 295 new, fund-eligible commercial UST releases per year were discovered and reported. This trend suggests an additional \$40.2 million per year will potentially be added to overall obligations. Given these projected obligations, in the absence of additional funding or changes in funding mechanisms, the long-term viability of the Commercial Fund as a primary financial responsibility mechanism, as currently structured, continues to be in question.

EPA and North Carolina UST Section Backlog Reduction Initiative

On October 1, 2018, the EPA Office of Underground Storage Tanks (OUST) launched an effort to reduce the national backlog of open, unresolved UST incidents. Aspirational cleanup goals were set for each EPA region who then evaluated the individual states and assigned state goals for the upcoming federal fiscal year. Based upon Region 4's evaluation, North Carolina's federal fiscal year goal was established at 720 total closures. Upon notification of this increased goal, Region 4 and North Carolina's UST Section management group worked jointly to explore means to meet OUST's request. Region 4 agreed to provide approximately \$467,000 in additional federal grant funding to combine with the \$500,000 of annual state funding allowed for use in evaluating and closing low-risk sites. As of September 30, 2019, North Carolina exceeded the OUST aspirational goal with 747 total closures for the federal fiscal year, as well as providing for reimbursement of associated with non-directed cleanup claims for these sites as appropriate. This initiative will be on-going through FY 2019-20 or until funding is exhausted.

FY 2018-19
Petroleum Underground Storage Tank Cleanup Funds
Recommendations

After review and evaluation of the Commercial Cleanup Fund status for FY 2018-19, the UST Section makes the following recommendations:

- 1) Provide additional funding and staff to address required oversight for releases from ASTs, noncommercial (home heating oil) USTs and roadside incidents. This can be accomplished through an increase in administrative costs allowed from the Fund or by additional appropriations.
- 2) Provide additional funding and equipment for emergency response actions (i.e. storms, floods or releases from unknown sources) and disaster resiliency activities to identify and mitigate at-risk facilities.
- 3) Continue ongoing cost control measures:
 - i) Evaluation and implementation of better, more systematic ways to apply risk-based closure criteria to incidents.
 - ii) Continuation of intensive review process for pre-approvals for requested site work.
 - iii) Continuation of intensive corrective action plan review with consensus of the selected method and technology by all stakeholders required prior to implementation.
- 4) Investigate possible revenue enhancement mechanisms to enable the Commercial Fund to better meet projected future obligations including:
 - i) an increase in the motor fuels excise tax contribution to one cent per gallon, or;
 - ii) consider long-term transition from the Commercial Fund as the primary mechanism for owners of regulated USTs to meet federal financial responsibility requirements. In place of, or in conjunction with, a state-subsidized fund, owners and operators of newly installed or replaced or upgraded, regulated commercial UST systems could be required to use other financial responsibility mechanisms, such as private insurance, bonding, letters of credit or self-insurance.
- 5) Continue the successful programs previously implemented to prevent releases by maintaining a compliance inspection frequency of at least once every three years for USTs in North Carolina.
- 6) Continue the successful programs previously implemented to prevent and minimize releases by providing release prevention and detection training to UST owners and operators.