



**United States
Environmental Protection Agency**

FISCAL YEAR 2022

**Justification of Appropriation
Estimates for the Committee
on Appropriations**

Tab 08: Leaking Underground Storage Tanks

EPA-190-R-21-002

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**Environmental Protection Agency
FY 2022 Annual Performance Plan and Congressional Justification**

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**Environmental Protection Agency
FY 2022 Annual Performance Plan and Congressional Justification**

**APPROPRIATION: Leaking Underground Storage Tanks
Resource Summary Table
(Dollars in Thousands)**

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Leaking Underground Storage Tanks				
Budget Authority	\$95,805.6	\$92,203.0	\$92,376.0	\$173.0
Total Workyears	43.0	46.6	46.6	0.0

Bill Language: Leaking Underground Storage Tanks

For necessary expenses to carry out leaking underground storage tank cleanup activities authorized by subtitle I of the Solid Waste Disposal Act, \$92,376,000, to remain available until expended, of which \$67,007,000 shall be for carrying out leaking underground storage tank cleanup activities authorized by section 9003(h) of the Solid Waste Disposal Act; \$25,369,000 shall be for carrying out the other provisions of the Solid Waste Disposal Act specified in section 9508(c) of the Internal Revenue Code: Provided, That the Administrator is authorized to use appropriations made available under this heading to implement section 9013 of the Solid Waste Disposal Act to provide financial assistance to federally recognized Indian tribes for the development and implementation of programs to manage underground storage tanks.

**Program Projects in LUST
(Dollars in Thousands)**

Program Project	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Enforcement				
Civil Enforcement	\$657.3	\$620.0	\$634.0	\$14.0
Operations and Administration				
Central Planning, Budgeting, and Finance	\$354.8	\$416.0	\$434.0	\$18.0
Facilities Infrastructure and Operations	\$1,066.0	\$836.0	\$837.0	\$1.0
Acquisition Management	\$155.9	\$132.0	\$132.0	\$0.0
Subtotal, Operations and Administration	\$1,576.7	\$1,384.0	\$1,403.0	\$19.0
Underground Storage Tanks (LUST / UST)				
LUST / UST	\$9,942.8	\$9,470.0	\$9,603.0	\$133.0
LUST Cooperative Agreements	\$57,441.7	\$55,040.0	\$55,040.0	\$0.0
LUST Prevention	\$25,666.5	\$25,369.0	\$25,369.0	\$0.0
Subtotal, Underground Storage Tanks (LUST / UST)	\$93,051.0	\$89,879.0	\$90,012.0	\$133.0
Research: Sustainable Communities				

Program Project	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Research: Sustainable and Healthy Communities	\$520.6	\$320.0	\$327.0	\$7.0
TOTAL LUST	\$95,805.6	\$92,203.0	\$92,376.0	\$173.0

Enforcement

Civil Enforcement
Program Area: Enforcement

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Environmental Programs & Management	\$162,505.0	\$168,341.0	\$194,623.0	\$26,282.0
<i>Leaking Underground Storage Tanks</i>	<i>\$657.3</i>	<i>\$620.0</i>	<i>\$634.0</i>	<i>\$14.0</i>
Inland Oil Spill Programs	\$2,237.2	\$2,413.0	\$2,462.0	\$49.0
Total Budget Authority	\$165,399.5	\$171,374.0	\$197,719.0	\$26,345.0
Total Workyears	899.6	916.2	965.2	49.0

Program Project Description:

The Civil Enforcement Program’s goal is to ensure compliance with the Nation’s environmental laws to protect human health and the environment. The Program collaborates with the United States Department of Justice, and state, local, and tribal governments to ensure consistent and fair enforcement of environmental laws and regulations. The Civil Enforcement Program develops, litigates, and settles administrative and civil judicial cases against violators of environmental laws.

To protect the Nation’s groundwater and drinking water from petroleum and hazardous substance releases from Underground Storage Tanks (UST), the Civil Enforcement Program provides guidance, technical assistance, and training to promote and enforce cleanups at sites with UST systems.¹ The Enforcement and Compliance Assurance Program uses its Leaking Underground Storage Tanks (LUST) resources to oversee cleanups by responsible parties.

FY 2022 Activities and Performance Plan:

In FY 2022, EPA will work with states and tribes on a case-by-case basis to prioritize LUST enforcement goals for cleanup. The Agency also will continue to provide guidance, technical assistance, oversight, and training to enforce cleanups at LUST sites by responsible parties.

Performance Measure Targets:

Work under this program supports performance results in the Civil Enforcement Program under the EPM appropriation.

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- (+\$14.0) This change to fixed and other costs is an increase due to the recalculation of base workforce costs for existing FTE due to annual payroll increases, adjustments to provide essential workforce support, and changes to benefits costs.

¹ For more information, please refer to: <https://www.epa.gov/ust>.

Statutory Authority:

Reorganization Plan No. 3 of 1970, 84 Stat. 2086, as amended by Pub. L. 98–80, 97 Stat. 485 (codified at Title 5, App.) (EPA’s organic authority); Subtitle I of the Solid Waste Disposal Act.

Operations and Administration

Acquisition Management

Program Area: Operations and Administration

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Environmental Programs & Management	\$27,433.0	\$32,247.0	\$34,121.0	\$1,874.0
<i>Leaking Underground Storage Tanks</i>	<i>\$155.9</i>	<i>\$132.0</i>	<i>\$132.0</i>	<i>\$0.0</i>
Hazardous Substance Superfund	\$24,356.1	\$23,800.0	\$30,519.0	\$6,719.0
Total Budget Authority	\$51,945.0	\$56,179.0	\$64,772.0	\$8,593.0
Total Workyears	266.3	285.7	325.7	40.0

Program Project Description:

Leaking Underground Storage Tank (LUST) resources in the Acquisition Management Program support the Agency’s contract activities.

FY 2022 Activities and Performance Plan:

In FY 2022, EPA will continue to process contract actions in accordance with Federal Acquisition Regulation and guidance from the Office of Management and Budget Office of Federal Procurement Policy. Acquisition Management resources in LUST support information technology needs and the training and development of EPA’s acquisition workforce.

Performance Measure Targets:

Work under this program supports performance results in the Acquisition Management Program under the EPM appropriation.

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- There is no change in program funding.

Statutory Authority:

Reorganization Plan No. 3 of 1970, 84 Stat. 2086, as amended by Pub. L. 98–80, 97 Stat. 485 (codified at Title 5, App.) (EPA’s organic statute); Subtitle I of the Solid Waste Disposal Act.

Central Planning, Budgeting, and Finance
Program Area: Operations and Administration

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Environmental Programs & Management	\$70,751.8	\$76,718.0	\$81,563.0	\$4,845.0
<i>Leaking Underground Storage Tanks</i>	<i>\$354.8</i>	<i>\$416.0</i>	<i>\$434.0</i>	<i>\$18.0</i>
Hazardous Waste Electronic Manifest System Fund	\$114.5	\$0.0	\$0.0	\$0.0
Hazardous Substance Superfund	\$24,772.5	\$26,561.0	\$27,720.0	\$1,159.0
Total Budget Authority	\$95,993.6	\$103,695.0	\$109,717.0	\$6,022.0
Total Workyears	422.0	462.0	465.0	3.0

Total workyears in FY 2022 include 2.0 FTE funded by TSCA fees and 1.0 FTE funded by e-Manifest fees.

Total workyears in FY 2022 include 39.0 FTE to support Central Planning, Budgeting, and Finance working capital fund (WCF) services.

Program Project Description:

EPA’s financial management community maintains a strong partnership with the Leaking Underground Storage Tanks (LUST) Program. Activities under the Central Planning, Budgeting, and Finance Program support the management of integrated planning, budgeting, financial management, performance and accountability processes, and systems to ensure effective stewardship of LUST resources. This includes providing financial payment and support services for specialized fiscal and accounting services for the LUST programs.

FY 2022 Activities and Performance Plan:

In FY 2022, EPA will ensure secure, efficient, and sound financial and budgetary management of the LUST Program through the use of routine and ad hoc analysis, statistical sampling, and other evidence-based decision-making tools. Building on the work begun in previous years, EPA will continue to monitor and strengthen internal controls with a focus on sensitive payments and property. In addition, the Agency is reviewing its financial systems for efficiencies and effectiveness, identifying gaps, and targeting legacy systems for replacement.

Performance Measure Targets:

Work under this program supports performance results in the Central Planning, Budgeting, and Finance Program under the EPM appropriation.

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- (+\$18.0) This net change to fixed and other costs is an increase due to the recalculation of base workforce costs for existing FTE due to annual payroll increases, adjustments to provide essential workforce support, and changes to benefits costs.

Statutory Authority:

Reorganization Plan No. 3 of 1970, 84 Stat. 2086, as amended by Pub. L. 98-80, 97 Stat. 485 (codified as Title 5, App.) (EPA's organic statute); Subtitle I of the Solid Waste Disposal Act.

Facilities Infrastructure and Operations
Program Area: Operations and Administration

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Environmental Programs & Management	\$285,437.3	\$285,441.0	\$297,748.0	\$12,307.0
Science & Technology	\$68,812.7	\$67,500.0	\$68,533.0	\$1,033.0
Building and Facilities	\$32,216.3	\$27,076.0	\$56,076.0	\$29,000.0
<i>Leaking Underground Storage Tanks</i>	<i>\$1,066.0</i>	<i>\$836.0</i>	<i>\$837.0</i>	<i>\$1.0</i>
Inland Oil Spill Programs	\$640.2	\$682.0	\$683.0	\$1.0
Hazardous Substance Superfund	\$82,734.0	\$68,727.0	\$72,801.0	\$4,074.0
Total Budget Authority	\$470,906.5	\$450,262.0	\$496,678.0	\$46,416.0
Total Workyears	305.2	315.4	315.4	0.0

Total workyears in FY 2022 include 5.4 FTE to support Facilities, Infrastructure and Operations working capital fund (WCF) services.

Program Project Description:

Leaking Underground Storage Tank (LUST) resources in the Facilities Infrastructure and Operations Program fund the Agency’s rent, utilities, and security. The Program also supports centralized administrative activities and support services, including health and safety, environmental compliance and management, facilities maintenance and operations, space planning, sustainable facilities and energy conservation planning and support, property management, mail, and transportation services. Funding for such services is allocated among the major appropriations for the Agency.

FY 2022 Activities and Performance Plan:

In support of Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*,² EPA will work to secure physical and operational resiliency for agency facilities. The Agency will continue to take aggressive action to reconfigure EPA’s workplaces with the goal of reducing long-term rent costs while increasing EPA facility resiliency and sustainability to combat the effects of climate change and ensure a space footprint that accommodates a growing workforce. The Agency will continue to conduct rent reviews and verify monthly billing statements for its lease agreements with the General Services Administration and private landlords. For FY 2022, EPA is requesting \$616 thousand for rent in the LUST appropriation. EPA uses a standard methodology to ensure that rent charging appropriately reflects planned and enacted resources at the appropriation level.

² For additional information, please refer to: <https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad>.

Performance Measure Targets:

EPA's FY 2022 Annual Performance Plan does not include annual performance goals specific to this program.

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- (+\$1.0) This net change includes a slight program increase offset by a reduction due to the recalculation of rent, utilities, and security.

Statutory Authority:

Federal Property and Administration Services Act; Reorganization Plan No. 3 of 1970, 84 Stat. 2086, as amended by Pub. L. 98-80, 97 Stat. 485 (codified at Title 5, App.) (EPA's organic statute).

Underground Storage Tanks (LUST/UST)

LUST / UST

Program Area: Underground Storage Tanks (LUST / UST)

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Environmental Programs & Management	\$10,841.7	\$11,250.0	\$11,443.0	\$193.0
<i>Leaking Underground Storage Tanks</i>	<i>\$9,942.8</i>	<i>\$9,470.0</i>	<i>\$9,603.0</i>	<i>\$133.0</i>
Total Budget Authority	\$20,784.5	\$20,720.0	\$21,046.0	\$326.0
Total Workyears	87.7	91.6	91.6	0.0

Program Project Description:

The Leaking Underground Storage Tank (LUST) resources in the LUST/Underground Storage Tank (UST) Program ensure that petroleum contamination is properly assessed and cleaned up. Potential adverse effects from chemicals such as benzene - a known carcinogen – methyl-tertiary-butyl-ether, alcohols, or lead scavengers in gasoline and the cost to clean up these contaminants underscore the importance of preventing UST releases and complying with UST requirements. Even a small amount of petroleum released from an UST can contaminate groundwater, the drinking water source for many Americans.

This program supports the Administration’s priority of mitigating the negative environmental impacts to communities that are historically underserved, marginalized, and adversely affected by persistent poverty and inequality. As of September 2020, there were approximately 53 million people living within a quarter mile of an active UST facility, representing 16 percent of the total U.S. population. These communities tend to be more minority and lower income than the U.S. population as a whole.³

Under this program, EPA supports the oversight and implementation of LUST cleanup programs in the states,⁴ and directly implements assessments and cleanups of petroleum contamination from USTs in Indian Country. EPA also provides technical assistance and training to states and tribes on how to conduct cleanups and improve the efficiency of state programs. As of September 2020, 62,493 LUST sites had not achieved cleanup completion.⁵

As the direct implementer of the program in Indian Country, EPA oversees cleanups by responsible parties, conducts site assessments, remediates contaminated water and soil, and provides alternative sources of drinking water when needed. EPA’s funding for Indian Country is the primary source of money for these activities. With few exceptions, tribes do not have independent program resources to pay for assessing and cleaning up UST releases, and in many cases, there are no responsible parties available to pay for the cleanups at sites in Indian Country.

³ U.S. EPA, Office of Land and Emergency Management 2020. Data used includes: (1) UST/LUST information as of late-2018 to mid-2019 depending on state from the UST Finder (<https://www.epa.gov/ust/ust-finder>) and (2) 2015-2018 American Community Survey (ACS) census data.

⁴ States as referenced here also include the District of Columbia and five territories as described in the definition of state in the Solid Waste Disposal Act.

⁵ Please refer to EPA website: <https://www.epa.gov/sites/production/files/2020-11/documents/ca-20-34.pdf>.

FY 2022 Activities and Performance Plan:

In FY 2020, the Covid-19 pandemic suppressed the number of cleanups completed. 7,211 LUST cleanups were completed nationally, including 16 in Indian Country. EPA will continue to collect and analyze information about the initiation and cleanup of UST releases.

In FY 2022, EPA will engage in the following activities:

- Work with states and tribes within available resources to implement strategies to reduce the number of sites that have not reached cleanup completion and to address new releases as they continue to be confirmed.
- Provide targeted training to states and tribes, such as remediation process optimization and rapid site assessment techniques.
- Continue developmental updates to the Tribal Underground Storage Tank Database (TrUSTD), which was launched in FY 2021. This database provides a central repository for Tribal UST/LUST data that will both improve data analysis on the Tribal UST/LUST universe, as well as create a platform that will make it easier for EPA to obtain and share Tribal UST/LUST data with the public.
- Monitor the soundness of financial mechanisms, in particular, insurance and state cleanup funds that serve as financial assurance for LUST releases and ensuring that money is available to pay for cleanups. In addition, EPA will continue to provide analysis and technical assistance to states to help them improve the environmental and financial performance of their cleanup funds.
- Provide support in Indian Country for site assessments, investigations, and remediation of high priority sites; enforcement against responsible parties; cleanup of soil and groundwater; alternate water supplies; cost recovery against UST owners and operators; oversight of responsible party lead cleanups; and technical expertise and assistance to tribal governments.
- Provide resources and support to states and tribes to quickly address emergency responses from releases to the environment. Releases from USTs can result in imminent threats to public safety when petroleum or petroleum vapors reach explosive levels in sewers, utility corridors, underground parking structures, and basements near a LUST site. Emergency response incidents across the country show that reporting, initial abatement measures, and free product removal activities may need to be implemented immediately upon discovery of a release to protect human health and the environment.⁶

⁶ For more information, please refer to: <http://astswmo.org/compendium-of-emergency-response-actions-at-underground-storage-tank-sites-version-2/>.

Performance Measure Targets:

Work under this program supports performance results in the LUST Cooperative Agreements Program under the LUST appropriation.

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- (+\$70.0) This change to fixed and other costs is an increase due to the recalculation of base payroll costs for existing FTE due to annual payroll increases, adjustments to provide essential workforce support, and changes to benefits costs.
- (+\$63.0) This program change increases support to underground storage tank cleanup, which invests in the health of municipalities and tribal communities.

Statutory Authority:

Resource Conservation and Recovery Act §§ 8001, 9001-9014.

LUST Prevention

Program Area: Underground Storage Tanks (LUST / UST)

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
<i>Leaking Underground Storage Tanks</i>	<i>\$25,666.5</i>	<i>\$25,369.0</i>	<i>\$25,369.0</i>	<i>\$0.0</i>
Total Budget Authority	\$25,666.5	\$25,369.0	\$25,369.0	\$0.0

Program Project Description:

The goal of the Leaking Underground Storage Tank (LUST) Prevention Program is to ensure that groundwater sources are protected from petroleum and associated chemicals leaking from underground storage tanks (USTs). This work supports the Administration’s priority of mitigating the negative environmental impacts to communities that are historically underserved, marginalized, and adversely affected by persistent poverty and inequality, as articulated in Executive Order 13985 on supporting underserved communities.⁷ As of September 2020, approximately 53 million people live within a quarter mile of an active UST facility, representing 16 percent of the total U.S. population. These communities tend to be more minority and lower income than the U.S. population as a whole.⁸

The LUST Prevention program provides funding to states⁹ and tribes to prevent releases from the 540,423 federally regulated USTs by ensuring compliance with federal and state laws through inspections and other activities.¹⁰ Preventing UST releases is more efficient and less costly than cleaning up releases after they occur. The Energy Policy Act (EPAct) of 2005 requires EPA or states to conduct inspections at each regulated UST once every three years.

Funding for LUST Prevention grants is subject to an annual, formula-based allocation process.

FY 2022 Activities and Performance Plan:

Due to the increased emphasis on inspections and release prevention requirements, the number of confirmed releases has decreased from 6,847 in FY 2014 to 4,944 reported releases in FY 2020.

As of FY 2020, 22 states and territories have reported compliance with the UST Technical Compliance Rate (TCR) measure, which came about after the UST rule was revised in 2015. The TCR includes new compliance measures for spill prevention and overfill requirements as well as additional leak detection requirements. More states will report on TCR as they reach their

⁷ For additional information, please see: <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>.

⁸ U.S. EPA, Office of Land and Emergency Management 2020. Data used includes: (1) UST/LUST information as of late-2018 to mid-2019 depending on state from the UST Finder (<https://www.epa.gov/ust/ust-finder>) and (2) 2015-2018 American Community Survey (ACS) census data.

⁹ States as referenced here also include the District of Columbia and five territories as described in the definition of state in the Solid Waste Disposal Act.

¹⁰ Please refer to EPA website: <https://www.epa.gov/sites/production/files/2020-11/documents/ca-20-34.pdf>.

respective UST state regulation effective dates. In FY 2020, EPA reported a TCR rate of 58 percent, a significant improvement from the 44 percent rate from FY 2019.

The remaining states and territories will continue to report the Significant Operational Compliance (SOC) rate until they reach their respective UST state regulation effective dates and move to the TCR. In FY 2020, EPA reported an SOC rate of 68 percent, which mirrors the results from FY 2019.¹¹

Major FY 2022 activities include core program priorities, such as inspecting UST facilities to meet the three-year inspection requirement and assisting states in adopting prevention measures (for example, delivery prohibition, secondary containment, and operator training). These activities emphasize bringing UST systems into compliance with release detection and release prevention requirements and minimizing future releases. Due to the Covid-19 pandemic, many states fell behind in their 3-year EPAAct inspection frequency requirement. EPA will work with states to ensure they come back into compliance and return to their regular inspection cycles.

A lack of proper operation and maintenance for UST systems is one of the main causes of petroleum releases and was the main impetus for EPA to propose changes to the federal UST rule that was finalized in October 2015. In FY 2022, EPA expects all states to fully implement the new requirements associated with the federal rule.

EPA is responsible for implementing the UST regulations in Indian Country, in partnership with the tribes. Resources will be used to provide support with all aspects of the tribal prevention programs, including the development of inspection capacity. This includes providing money to support training for tribal staff and educating owners and operators in Indian Country about UST compliance requirements and, in some cases, assisting tribal staff to receive federal inspector credentials to perform inspections on behalf of EPA.

Performance Measure Targets:

(PM CR1) Number of confirmed releases at UST facilities.	FY 2021 Target	FY 2022 Target
		5,150

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- There is no change in program funding.

Statutory Authority:

Solid Waste Disposal Act of 1976, as amended by the Superfund Amendments and Reauthorization Act of 1986, § 2007(f); Energy Policy Act, § 9011.

¹¹ More information on performance measures can be found at <https://www.epa.gov/ust/ust-performance-measures>.

LUST Cooperative Agreements

Program Area: Underground Storage Tanks (LUST / UST)

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
<i>Leaking Underground Storage Tanks</i>	<i>\$57,441.7</i>	<i>\$55,040.0</i>	<i>\$55,040.0</i>	<i>\$0.0</i>
Total Budget Authority	\$57,441.7	\$55,040.0	\$55,040.0	\$0.0

Program Project Description:

This funding is used to award cooperative agreements to states¹² to implement the Leaking Underground Storage Tank (LUST) Program. The LUST Program ensures that petroleum contamination is properly assessed and cleaned up by providing states with funding to address releases, including in groundwater.¹³

This program supports the Administration’s priority of mitigating the negative environmental impacts to communities that are historically underserved, marginalized, and adversely affected by persistent poverty and inequality. As of September 2020, there were approximately 53 million people living within a quarter mile of an active UST facility, representing 16 percent of the total U.S. population. These communities tend to be more minority and lower income than the U.S. population as a whole.¹⁴

LUST funding supports states in managing, overseeing, and enforcing cleanups at LUST sites. This is achieved by focusing on increasing the efficiency of LUST cleanups nationwide, leveraging private and state resources, and enabling community redevelopment. Cleaning up LUST sites protects people from exposure to contaminants and makes land available for reuse.

EPA’s backlog study characterized the national inventory of sites that have not reached cleanup completion. The study found that almost half of the releases were 15 years old or older, and that groundwater was contaminated at 78 percent of these sites. Remediating groundwater contamination is often more technically complex, takes longer, and is more expensive than remediating soil contamination.¹⁵ Potential adverse health effects from chemicals in gasoline such as benzene as well as methyl-tertiary-butyl-ether (MTBE), alcohols, or lead scavengers contribute to the importance of cleaning up these contaminants and increase the cost of cleaning up these sites.¹⁶

¹² States as referenced here also include the District of Columbia and five territories as described in the definition of state in the Solid Waste Disposal Act.

¹³ Almost half of the Nation’s overall population and 99 percent of the population in rural areas rely on groundwater for drinking water. (See *EPA 2000 Water Quality Inventory Report*, https://archive.epa.gov/water/archive/web/html/2000report_index.html).

¹⁴ U.S. EPA, Office of Land and Emergency Management 2020. Data used includes: (1) UST/LUST information as of late-2018 to mid-2019 depending on state from the UST Finder (<https://www.epa.gov/ust/ust-finder>) and (2) 2015-2018 American Community Survey (ACS) census data.

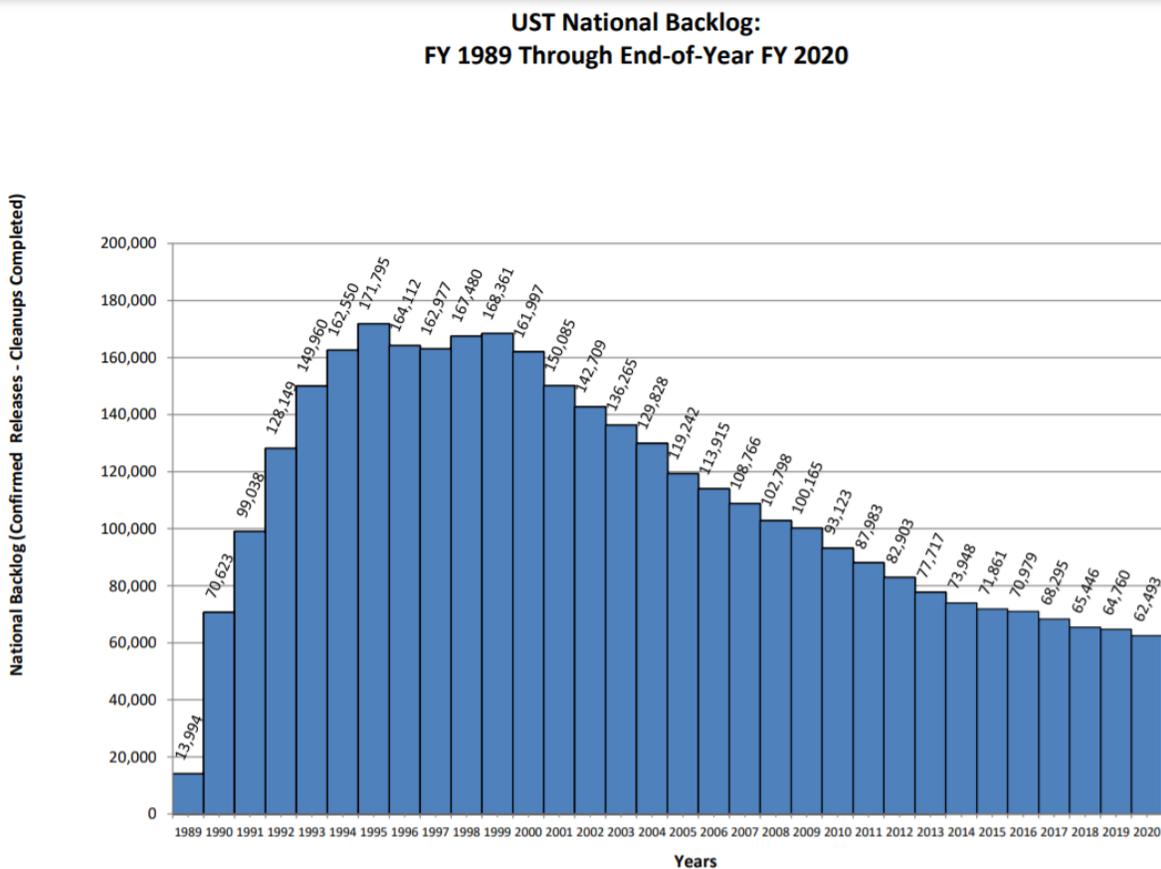
¹⁵ Please see *The National LUST Cleanup Backlog: A Study Of Opportunities*, September 2011, <http://www.epa.gov/ust/national-lust-cleanup-backlog-study-opportunities>.

¹⁶ Please see *Technologies for Treating MtBE and Other Fuel Oxygenates*, May 2004, pages 2-6 and 2-7, <https://clu-in.org/download/remed/542r04009/542r04009.pdf>.

An EPA study published in 2018 determined impact of high-profile UST releases on housing prices. The study found that high profile UST releases decrease nearby property values 2 to 6 percent. Once a cleanup is completed, nearby property values rebound by a similar margin.¹⁷

FY 2022 Activities and Performance Plan:

In FY 2020, the Covid-19 pandemic suppressed the number of cleanups completed. In this time, the backlog fell to 62,493. The table below shows the progress made on the UST national backlog. EPA will continue to collect and analyze information about the initiation and cleanup of UST releases.



In FY 2022, EPA will engage in the following activities:

- Collaborate with states to develop and implement flexible, state-driven strategies to reduce the number of remaining LUST sites that have not reached cleanup completion. Through the cooperative efforts between EPA and states, the backlog was reduced by approximately 39 percent between the end of 2008 and the end of 2020 (from 102,798 to 62,493).¹⁸

¹⁷ Guignet, D., Jenkins, R., Ranson, M., & Walsh, P. J. (2018). Contamination and incomplete information: Bounding implicit prices using high-profile leaks. *Journal of environmental economics and management*, 88, 259-282.

<https://doi.org/10.1016/j.jeem.2017.12.003>.

¹⁸ Please see EPA website: <http://www.epa.gov/ust/ust-performance-measures>.

- Provide resources to states to perform core cleanup work. Some states also may be able to pursue other means to maximize the effectiveness or efficiency in protectively completing cleanups and reducing their backlogs.
- Leverage funding by developing best practices and supporting management, guidance, and enforcement activities through LUST Cleanup Cooperative Agreements. LUST Cleanup Cooperative Agreements help achieve approximately 8,000 cleanups annually, whereas, if EPA were to apply the funding directly, only about 390 cleanups would occur annually (assuming an average cleanup cost of \$141 thousand per site).¹⁹
- Provide resources and support to states to quickly address emergency responses from releases to the environment. Emergency response incidents across the country show that reporting, initial abatement measures, and free product removal activities need to be implemented immediately upon discovery of a release to protect human health and the environment.²⁰

The Energy Policy Act (EPAAct) of 2005 requires that states receiving LUST Cooperative Agreements funding meet certain release prevention requirements, such as inspecting every facility at least once every three years. In FY 2022, EPA will continue to factor state compliance with EPAAct requirements into LUST Cleanup Cooperative Agreement decisions.

Performance Measure Targets:

(PM 112) Number of LUST cleanups completed that meet risk-based standards for human exposure and groundwater migration.	FY 2021 Target	FY 2022 Target
	11,200	11,200

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- There is no change in program funding.

Statutory Authority:

Resource Conservation and Recovery Act § 9003(h)(7).

¹⁹ Average cleanup cost per site based on ASTSWMO’s 2019 Annual State Fund Survey Results at: <http://astswmo.org/2019-annual-state-fund-survey/>.

²⁰ For more information, please see: <http://astswmo.org/compendium-of-emergency-response-actions-at-underground-storage-tank-sites-version-2/>.

Research: Sustainable Communities

Research: Sustainable and Healthy Communities
 Program Area: Research: Sustainable Communities

(Dollars in Thousands)

	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Pres Budget	FY 2022 Pres Budget v. FY 2021 Enacted
Science & Technology	\$143,191.3	\$133,000.0	\$137,412.0	\$4,412.0
<i>Leaking Underground Storage Tanks</i>	<i>\$520.6</i>	<i>\$320.0</i>	<i>\$327.0</i>	<i>\$7.0</i>
Inland Oil Spill Programs	\$428.2	\$664.0	\$668.0	\$4.0
Hazardous Substance Superfund	\$15,501.1	\$16,463.0	\$16,634.0	\$171.0
Total Budget Authority	\$159,641.2	\$150,447.0	\$155,041.0	\$4,594.0
Total Workyears	417.3	421.8	441.8	20.0

Program Project Description:

EPA’s Sustainable and Healthy Communities (SHC) Research Program under the Leaking Underground Storage Tanks (LUST) appropriation provides federal, regional, and community decision-makers with tools, methods, and information to prevent leaking underground storage tanks and mitigate release at LUST sites. Specifically, this research provides information and tools designed to enable decision-makers to better:

- Assess sites and evaluate the implications of alternative remediation techniques, policies, and management actions to assess and cleanup leaks at fueling stations; and
- Protect America’s land, groundwater resources, and drinking water supplies that could be impacted by the Nation’s more than 550 thousand underground fuel storage tanks.²¹

SHC has made a commitment to explore all possibilities to minimize and mitigate disproportionate, negative impacts and to foster environmental, public health, and economic benefits for overburdened communities. Improved tools as well as LUST remedial technologies and research will directly assist communities with environmental justice concerns and accelerate the understanding of the negative impacts LUST sites pose for underserved communities. SHC also is making the commitment to emphasize remediation technologies that improve climate adaptation and climate resilience.

The SHC Research Program is one of six integrated and transdisciplinary research programs in the Research and Development Program. Each of the six programs is guided by a Strategic Research Action Plan (StRAP) that reflects the research needs of Agency program and regional offices, states, and tribes, and is implemented with their active collaboration and involvement. The *SHC FY 2019-2022 StRAP* builds upon prior SHC StRAPs and continues a practice of conducting innovative scientific research aimed at solving the problems encountered by the Agency and its stakeholders.

²¹ For more information, please see: <https://www.epa.gov/ust>.

Recent Accomplishments of the SHC Research Program include:

National Database on Underground Storage Tank Infrastructure²²: This research provides the first national database on underground storage tanks in the US. It provides geospatial data on facilities and tanks in context with drinking water sources, critical data on the aging infrastructure, and facilities that may be impacted by flooding. Researchers compiled and curated publicly available information regarding the attributes and locations of active and closed underground storage tanks (UST), UST facilities, and leaking UST (LUST) sites. This research will be used by the public and private sectors at the national, state, and local levels to protect this infrastructure, better understand the vulnerabilities to these facilities, and improve protection of public health and the environment. Training is being conducted in FY 2021 with the Agency's Office of Land and Emergency Management (OLEM), the Regions and State partners to better utilize these data to assess facility risk and triage sites for cleanup and protection of drinking water sources. A public website is available and being updated to meet additional partner needs with version 2.0 planned by the end of FY 2023.

Current Best Practices in Maintaining Hydraulic Control at Fueling Facilities²³: This report, published in September 2020, provides an overview of current best practices for hydraulic control of underground storage tanks recommended by commercial, industrial, federal, state, and local agency sources. There are an estimated 65 thousand sites nationwide with leaking underground storage tanks (USTs). Leaking tanks can lead to serious environmental and health risks, including the contamination of ground water, the source of drinking water for nearly half of all Americans. The best practices include 1) general fueling station hydraulic control design (canopies, surfacing materials, drainage, routing, grading), and 2) operation and maintenance practices (housekeeping, spill response, drain management, runoff containment). The report may be used by owner/operators, state and local regulating agencies, and design engineers as a resource for hydraulic control best practices when constructing, maintaining, and upgrading fueling facilities.

FY 2022 Activities and Performance Plan:

Work in this program will aim to characterize sites and contaminants released from LUSTs identified under the LUST Trust Fund with an emphasis on assisting the Agency and states in addressing the backlog of sites for remediation. Also, SHC research will help communities remediate contaminated sites at an accelerated pace and lower costs, while reducing human health and ecological impacts. Resulting methodologies and tools will help localities and states return properties to productive use, thus supporting the Agency's mission of protecting human health and the environment in the context of communities. Such work is integral to achieving EPA's priority of revitalizing land and preventing contamination.

In FY 2022, EPA research will continue to develop models, metrics, and spatial tools for EPA regions and states to evaluate the vulnerability of groundwater to LUSTs and the subsequent human health risks that follow contamination. A continued focus on corrosion control methods

²² For more information, please see: https://intranet.ord.epa.gov/sites/default/files/2020-12/UST%20Finder%20User%20Guide_0.pdf and <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=c220c67462e14763a8e0c4df75550278>.

²³ For more information, please see: <https://intranet.ord.epa.gov/sites/default/files/2020-12/Current%20Best%20Practices%20Hydraulic%20Control%20at%20Fueling%20Facilities.pdf>.

to improve the lifespan of tanks and reduce the likelihood of leaking will be a focus. Version 1.0 of one such model, for evaluating groundwater vulnerability, was developed in FY 2020. Version 2.0 of the model is planned for FY 2023 with groundwater wells continuing to be identified at a national level; the data collected from these wells will be used to support the groundwater vulnerability model at local, state, and national scales. SHC will assist EPA's Underground Storage Tanks Program and states by updating technical guidance manuals and evaluations of risk to underground storage tank system components from new fuel formulations.

Research Planning:

EPA's Board of Scientific Counselors (BOSC) is a federal advisory committee that provides advice and recommendations to EPA on technical and management issues of its research programs. The SHC Research Program will continue to meet regularly over the next several years with the SHC Subcommittee of the BOSC to seek input on topics related to research program design, science quality, innovation, relevance, and impact.

The Agency assesses the impact of its research through a survey tool and discussion with key users. Metrics center around quality, usability and timeliness of particular research products. This provides evidence for how research products are being used and by whom. Through the evaluation process, the Agency is able to identify targeted areas for improvement. The most recent survey results for FY 2020 research products indicated more than 80 percent met partner needs. EPA is working to improve partner engagement by developing a partner dashboard.

EPA's state engagement²⁴ is designed to inform states about their role within EPA and EPA's research programs, and to better understand the science needs of state environmental agencies. Key partners at the state level include: the Environmental Council of the States, with its Environmental Research Institute of the States and Interstate Technology and Regulatory Council; the Association of State and Territorial Health Officials; as well as state media associations, such as the Association of State and Territorial Solid Waste Management Officials.

EPA's commitment to advancing Tribal partnerships is demonstrated in the Research and Development Program, in which key partnerships are established through the Tribal Science Program which provides a forum for the interaction between Tribal and Agency representatives of mutual benefit and responsibility to work collaboratively on environmental science issues. The Tribal Science Program is committed to development of sound scientific and cultural approaches to meet the needs of tribes.

Performance Measure Targets:

Work under this program supports performance results in the Research: Sustainable and Healthy Communities Program under the S&T appropriation.

²⁴ For more information on EPA's engagement with states, please see: <https://www.epa.gov/research/epa-research-solutions-states>.

FY 2022 Change from FY 2021 Enacted Budget (Dollars in Thousands):

- (+\$4.0) This change to fixed and other costs is an increase due to the recalculation of base workforce costs for existing FTE due to annual payroll increases, adjustments to provide essential workforce support, and changes to benefits costs.
- (+\$3.0) This program change is an increase to the Sustainable and Healthy Communities LUST research program, to help build capacity to address contaminants of emerging concern.

Statutory Authority:

Reorganization Plan No. 3 of 1970, 84 Stat. 2086, as amended by Pub. L. 98-80, 97 Stat. 485 (codified as Title 5 App.) (EPA's organic statute); Subtitle I of the Solid Waste Disposal Act.

