



DEPARTMENT OF
ECOLOGY
State of Washington

Cleanup Settlement Account Annual Report

Fiscal Year 2020

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**Cleanup Settlement Account
Annual Report**

Fiscal Year 2020

Toxics Cleanup Program

Washington State Department of Ecology

Olympia, Washington

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Acknowledgements

I am pleased to present the Department of Ecology's *Cleanup Settlement Account Annual Report, Fiscal Year 2020* to the Washington Legislature. This report provides an overview of cleanup settlements deposited into the Cleanup Settlement Account (CSA), current fund balances in the CSA, and transfers from and repayments to the CSA. The report also includes background on each cleanup project currently supported by the CSA and work completed. My thanks go to the staff listed below for their contribution to the report.

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Executive Summary

Purpose of the report

This document is a report to the Washington State Legislature to show how the Department of Ecology (Ecology) uses the Cleanup Settlement Account to distribute funds to specific cleanup projects. This is the eighth annual report for this account. It describes the financial activity in the Cleanup Settlement Account (CSA) from July 1, 2019, to June 30, 2020, consistent with [RCW 70A.305.130](#). That provision states:

The department shall provide the office of financial management and the fiscal committees of the Legislature with a report by October 31st of each year regarding the activity within the cleanup settlement account during the previous fiscal year.

The statute creating the CSA is codified in [RCW 70A.305.130](#) (see Appendix A).

Role of the Cleanup Settlement Account

Under the state's Cleanup Law, the Model Toxics Control Act (MTCA), Ecology either supervises cleanup work performed by potentially liable persons or directly conducts the cleanups. When possible Ecology recovers cleanup costs, including staff time. However, this isn't always possible when a company declares bankruptcy or does not have the financial means to pay the full cleanup cost.

In response to this problem, the Legislature created the Cleanup Settlement Account. This Account creates a financial reserve. It holds funds from legal settlements and court orders meant for environmental cleanup and restoration work. It is an interest bearing account that allows the state to use the interest on deposited funds for cleanup activities both in the present, and in the future. Because of this, Ecology and the Attorney General's Office can enter into settlements in which a potentially liable person contributes money for future cleanup work or restoration of a natural resource.

The Cleanup Settlement Account funds projects throughout the state, and makes sure that settlement funds are linked to specific contaminated sites.

Cleanup Settlement Account moves cleanup projects forward

The Cleanup Settlement Account moves important cleanup projects forward by cleaning up pollution, supporting sustainable communities, and improving natural resources for present and future generations. The following cleanup and restoration projects are currently funded through the Cleanup Settlement Account:

- B&L Woodwaste (Pierce County)
- Everett Smelter Plume (Snohomish County)
- Golden King Mine (Chelan County)
- Harper Estuary (Kitsap County)
- McNeil Island (Pierce County)
- Monte Cristo Mine (Snohomish County)
- Ross Point (Kitsap County)
- Tacoma Smelter Plume (Pierce, King, and Thurston Counties)
- Van Stone Mine (Stevens County)

The following cleanup projects were funded in past years through the CSA:

- BSNF Skykomish Natural Resource Damages (King County)
- City Parcel Site (Spokane County)
- Cholette Mine (Stevens County)
- Lilyblad (Pierce County)
- Maury Island Open Space Acquisition (King County)

The projects and the work currently being supported by the CSA, is discussed in more detail in this report. Information about sites funded in in past years through the CSA can be found through the links in Appendix B, and in CSA reports of the past years referenced below.

CSA Report 2014 and 2015:

<https://fortress.wa.gov/ecy/publications/documents/1509172.pdf>

CSA Report 2016:

<https://fortress.wa.gov/ecy/publications/documents/1609173.pdf>

CSA Report 2017:

<https://fortress.wa.gov/ecy/publications/documents/1709181.pdf>

CSA Report 2018:

<https://fortress.wa.gov/ecy/publications/SummaryPages/1809102.html>

CSA Report 2019:

<https://fortress.wa.gov/ecy/publications/SummaryPages/1909081.html>

See Figure 1 on page *ix* for a map showing the locations of funded cleanup projects.

Additional funding will be needed to complete some cleanup projects

At the end of Fiscal Year 2020, the remaining balance in the Cleanup Settlement Account was \$51,537,000 with another \$9,042,000 in loans to be repaid to the Cleanup Settlement Account. Together, that adds up to nearly \$61 million remaining in the account.

While the Cleanup Settlement Account is an important repository of funds for many projects, it is often insufficient to fund complete cleanups. In the future, as settlement funds are spent, we will need to rely on alternative sources of funding to move several cleanup projects forward. We anticipate some of the Asarco Settlements will be spent before cleanup is complete.

For the Tacoma Smelter Plume site, we expect to spend remaining settlement funds by the 2025-27 biennium. For the Everett Smelter site, in the 2019-21 biennium, the Legislature appropriated \$5,492,000 from the Model Toxics Control Capital Account to help fund ongoing work as we spend down the remaining settlement funds. We have requested additional funding for work at that site in our budget submittal to OFM for the 2021-23 biennium.

With good management plans in place, and extra funding in the future, the cleanup work made possible through the Cleanup Settlement Account will continue to protect human health and the environment.

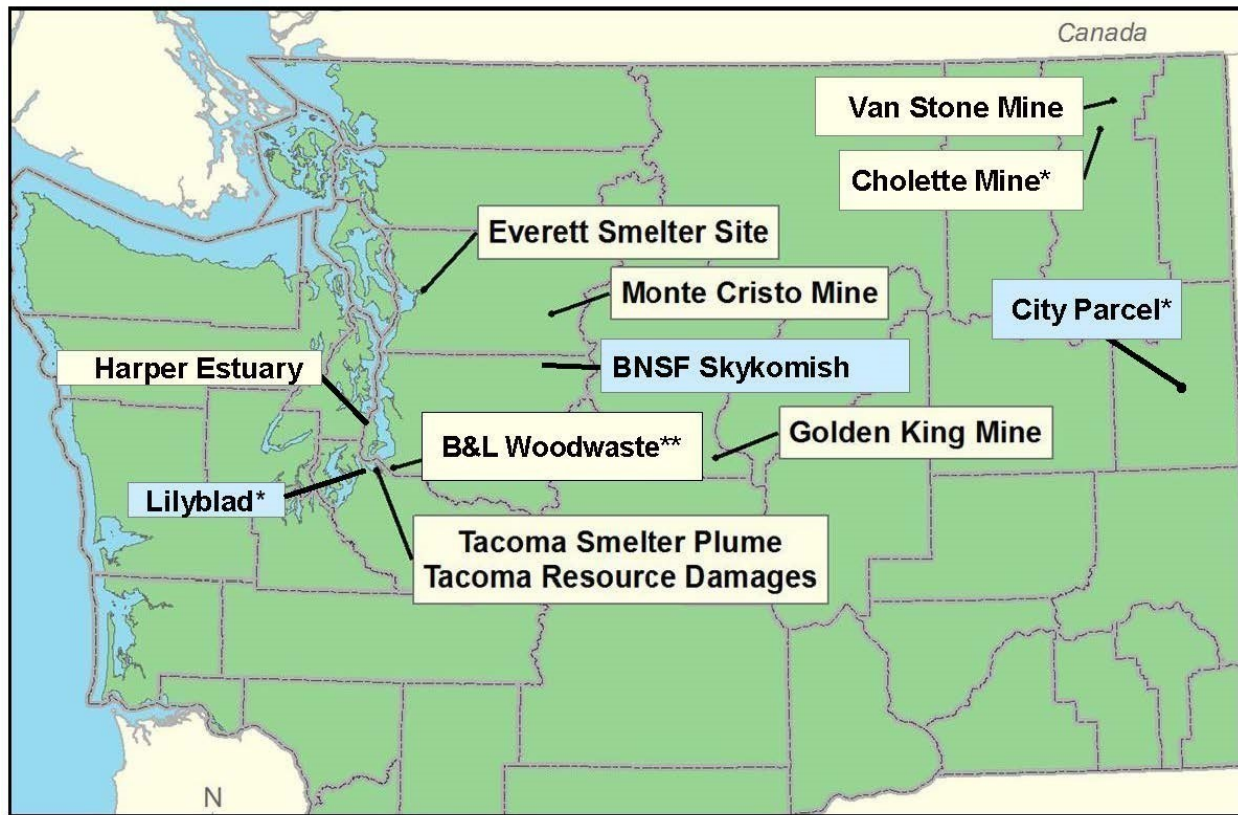


Figure 1: Map showing locations of Cleanup Settlement Account projects.

* Sites not covered in the report; funded in past years by Cleanup Settlement Account.

** Asarco site but Cleanup Settlement Account funds not from Asarco bankruptcy.

Asarco-related sites
Other sites

Asarco Related Sites: Tacoma Resource Damages (Harper Estuary, Maury Island Open Space Acquisition, McNeil Island, and Ross Point) B&L Woodwaste, Tacoma Smelter Plume, Golden King Mine, Monte Cristo Mine, Everett Smelter Site, Cholette Mine, Van Stone Mine.

Other Sites: BNSF Skykomish, City Parcel, Lilyblad.

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Cleanup Settlement Account

Background

During the 2008 legislative session, the Legislature passed [Senate Bill 6722](#) that created the Cleanup Settlement Account. Ecology requested this legislation to create an interest-bearing account in the state treasury to manage money from settlements or court orders in cases of bankruptcy, limited ability to pay, or natural resource damages. This account ensures that settlement funds are linked to specific site cleanup activities or damages to natural resources. The statutory provision was codified in [RCW 70A.305.130](#) (see Appendix A).

Ecology requested this new account because we expected several large settlements. Although large settlements and court orders are unusual, they pose problems for the state. By accepting the settlement funding, the state agrees to manage the funds and use them as intended in the settlement agreement or court order. However, funds recovered from a bankrupt party, or a party with a limited ability to pay, typically do not cover the complete cost of cleanup. The Cleanup Settlement Account allows the state to retain earned interest on the funds in this account. This provides the state with additional money over time to complete the work.

Settlement summary

Table 1 provides a summary of settlements, by site, that the state originally deposited into the Cleanup Settlement Account before earning any interest or making any expenditures. Tables 2 through 4 (see pages 2-4) show activity in the Account after the settlements were deposited.

The Model Toxics Control Act accounts are referenced in Tables 2 through 4 and loan repayment background. In 2019, [Engrossed Substitute Senate Bill 5993](#) (ESSB 5993) made significant changes to both the Hazardous Substance Tax that funds the MTCA accounts, and changed the account structure. The above mentioned bill eliminated the three prior MTCA accounts, State Toxics Control Account, Local Toxics Control Account, and the Environmental Legacy Stewardship Account, replacing them with three new accounts: Model Toxics Control Operating Account, Model Toxics Control Capital Account, and the Model Toxics Control Stormwater Account. For this report, the new account names are used because in Fiscal Year 2020 all financial transactions affected the new accounts.

Table 1: Original settlement summary.

Settlement	Amount
Burlington Northern Sante Fe - Skykomish Site [^]	\$ 5,050,000
City Parcel Site*	\$ 270,000
Louisiana Pacific - B & L Woodwaste Site	\$ 1,000,000
Lilyblad Petroleum Site	\$ 800,000
Asarco - Natural Resource Damages**	\$ 8,236,782
Asarco - Tacoma Smelter Plume	\$ 94,554,730
Asarco - Everett Smelter Site	\$ 33,888,476
Asarco - Monte Cristo Mine	\$ 6,471,758
Asarco - Van Stone Mine	\$ 3,530,050
Asarco - Cholette Mine	\$ 353,005
Asarco - Golden King Mine	\$ 470,673
Asarco Subtotal	\$ 147,505,474
Total Settlement Funding	\$ 154,625,474

[^] Ecology used this settlement to fund a portion of the cleanup. If Ecology determines there are future site costs, we will make a future budget request.

* Sites not covered in the report; funded in past years by Cleanup Settlement Account.

** This includes \$4.1 million for Maury Island Open Space and \$4.1 million for Harper Estuary, McNeil Island, and Ross Point in Sinclair Inlet.

Table 2: Cleanup Settlement Account Fund Balance.

Cleanup Settlement Site	Fund Balance
Louisiana Pacific - B&L Woodwaste site	\$ 1,141,000**
Asarco - Natural Resource Damages	\$ 965,000
Asarco - Tacoma Smelter Plume	\$ 38,976,000**
Asarco - Everett Smelter Site	\$ 3,956,000**
Asarco - Monte Cristo Mine	\$ 3,723,000*
Asarco - Van Stone Mine	\$ 2,269,000*
Asarco - Golden King Mine	\$ 507,000*
Remaining Fund Balance June 30, 2020	\$ 51,537,000

* The Cleanup Settlement Account retains interest. Settlements that increased from the last report had no or few expenditures and earned interest.

** The remaining balance reflects the cleanup costs and loans taken from and repaid to the account.

Table 3: Cleanup Settlement Account actual loan receipts for Fiscal Year 2020.

Actual Loan Receipts for Fiscal Year 2020	Principal
State Efficiency and Restructuring Account Loan	\$ 12,000
Total Point Ruston Sediment Capping and Shoreline Restoration Loan	\$ 1,240,000
Aquatic Lands Enhancement Account	\$ 620,000
Model Toxics Control Operating Account	\$ 620,000
Model Toxics Control Stormwater Account	\$ 8,000,000
Total Actual Loan Receipts for Fiscal Year 2020	\$ \$9,252, 000

Table 4: Cleanup Settlement Account loans receivable.

Loans Receivable	Repayment Obligation
State Efficiency and Restructuring Account Loan	\$ 0
Total Point Ruston Sediment Capping and Shoreline Restoration Loan	\$ 1,268,000
Aquatic lands Enhancement Account	\$ 634,000
State Toxics Control Account/Model Toxics Control Operating Account	\$ 634,000
Model Toxics Control Stormwater Account	\$ 7,774,000
Total Loans Receivable	\$ 9,042,000

Fund transfers: State Efficiency and Restructuring Account

Fiscal Year 2011: \$39,480,000 transfer

In the 2010 supplemental budget, the Legislature authorized the transfer of \$39.48 million from the Cleanup Settlement Account to the State Efficiency and Restructuring Account (SERA). The Legislature provided a payback provision in the budget. The provision required that the SERA repay funds over an eight-year period with an interest rate that is five tenths of a percent higher than the interest rate the funds would have earned without the transfer. The final loan repayment of \$12,000 was completed in Fiscal Year 2020.

Repayments: Point Ruston sediment capping and shoreline restoration

Fiscal Year 2012: \$7,200,000 appropriation

In the 2012 supplemental budget, the Legislature appropriated \$7.2 million from the Cleanup Settlement Account to the Washington Department of Natural Resources (DNR) for the Point

Ruston Sediment Capping and Shoreline Restoration project. The funding was provided to cap sediment and stabilize shorelines on aquatic lands next to the Asarco cleanup site in Commencement Bay.

This funding was restricted, to be used only after DNR entered into agreements with the U.S. Environmental Protection Agency or the landowner, Point Ruston LLC, to fully relieve the state from any further liability or contributions relating to the cleanup of these aquatic lands. The appropriation from the Cleanup Settlement Account was a loan payable over an eight-year period.

Half of the funding came from the Aquatic Lands Enhancement Account and half from the State Toxics Control Account. The interest rate is five-tenths of one percent higher than what the funds would have normally earned on deposits in the state treasury.

Aquatic Lands Enhancement Account:

- Outstanding loan as of June 30, 2020 \$ 634,000
- Loan receivable Fiscal Year 2021 \$ 634,000

Model Toxics Control Operating Account:

- Outstanding loan as of June 30, 2020 \$ 634,000
- Loan receivable Fiscal Year 2021 \$ 634,000

Maintaining positive balances in MTCA accounts

In the 2015-2017 capital budget, the Legislature authorized two loans totaling \$23 million from the Cleanup Settlement Account to balance the MTCA accounts. The loans must be repaid with interest. The Washington State Treasurer transferred one of these loans for \$13 million from the Cleanup Settlement Account to the Local Toxics Control Account (LTCA) in January 2016. The Washington State Treasurer transferred the second loan of \$10 million from the Cleanup Settlement to the Local Toxics Control Account on June 30, 2017.

When the Legislature restructured the MTCA accounts in 2019 ([Engrossed Substitute Senate Bill 5993](#)) future repayment of this loan was directed to the new Model Toxics Control Stormwater Account. The Model Toxics Control Stormwater Account will repay the remainder with interest in Fiscal Year 2021.

Model Toxics Control Stormwater Account:

- Outstanding loan as of June 30, 2020 \$ 7,774,000
- Loan receivable Fiscal Year 2021 \$ 7,774,000

Total outstanding loans

At the end of Fiscal Year 2020, the loans outstanding to the Cleanup Settlement Account total **\$9,042,000** (see Table 4 on page 3).

Asarco Settlement

Asarco's legacy in Washington

Contamination from smelters and mines

The American Smelting and Refining Company (Asarco) was founded in 1899, with refineries and smelters located across the United States and Mexico. Asarco operated two smelters and four mines in Washington, leaving a legacy of contamination. Cleanup activities around these smelters and mines in Washington are funded through the Cleanup Settlement Account (see Figure 2) and other fund sources as needed.

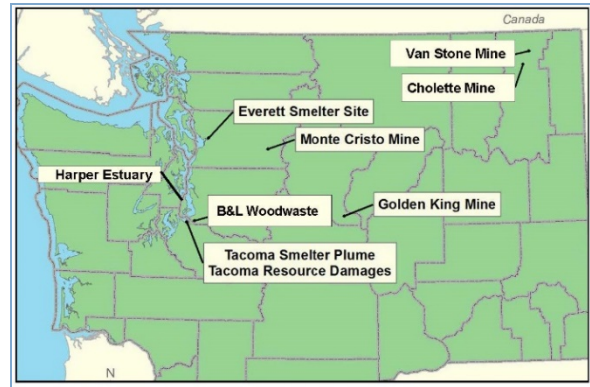


Figure 2: Asarco cleanup sites in Washington State.

The **Everett Smelter** operated from 1894 to 1912, and a neighborhood was later built over the site. In 1990, we discovered high levels of arsenic and other heavy metals in soil and groundwater.

The **Tacoma Smelter** operated far longer, from 1890 to 1986, and the Town of Ruston grew up around it. Air emissions from the smelter contaminated over 1,000 square miles of soil in the Puget Sound region, covering King, Pierce and Thurston counties.

The four former **mines** are in remote areas of Chelan, Stevens, and Snohomish counties. Remaining mine tailings pose a threat to local ecosystems, polluting waterways and soil.

The **B&L Woodwaste Landfill**, on the border of Fife and Milton, is contaminated with arsenic. Slag from the Asarco plant leached arsenic into groundwater, threatening a nearby wetland.

The 2009 Asarco bankruptcy settlement

Washington becomes part of the nation's largest environmental settlement in history

In 2005, Asarco declared bankruptcy, largely due to environmental liabilities from its nearly 100 cleanup sites across the country. The State of Washington joined the federal government and



Figure 3: Asarco 50th anniversary

other states in a lawsuit against Asarco that spanned four years.

In November 2009, Asarco paid out a \$1.79 billion settlement. The settlement covered past and future cleanup costs, as well as interest earned over the four years. Washington’s share, deposited into the Cleanup Settlement Account in December of 2009, was \$188.5 million—nearly 90 cents for every dollar claimed.

Years of planning and a vision for cleanup set stage for success

The key to Washington’s success is creating and implementing management plans for both smelter sites, and a clear vision for how to manage the risk from “area-wide” arsenic and lead contamination. From 2001-2003, the Area Wide Soil Contamination Task Force developed recommendations that we used as the basis for our management strategies. These include cleaning up soil in the most highly contaminated areas, focusing on protecting children, and providing broad-based education and outreach, all of which are funded by the settlement.

Asarco settlement breakdown

Smelter cleanups— the largest cleanup costs

Of the \$188.5 million received by the state, \$22 million has gone to a trust to pay for the B&L Woodwaste Landfill cleanup. The rest went to two smelter sites and four mine sites (see Figure 4). An additional \$19 million in settlement funds reimbursed the State Toxics Control Account for past cleanup costs for the Everett Smelter and Tacoma Smelter Plumes. It also provided \$8.2 million for natural resource damages from the Tacoma Smelter. The majority of the Asarco settlement will cover soil cleanup and outreach work for the two smelter sites.

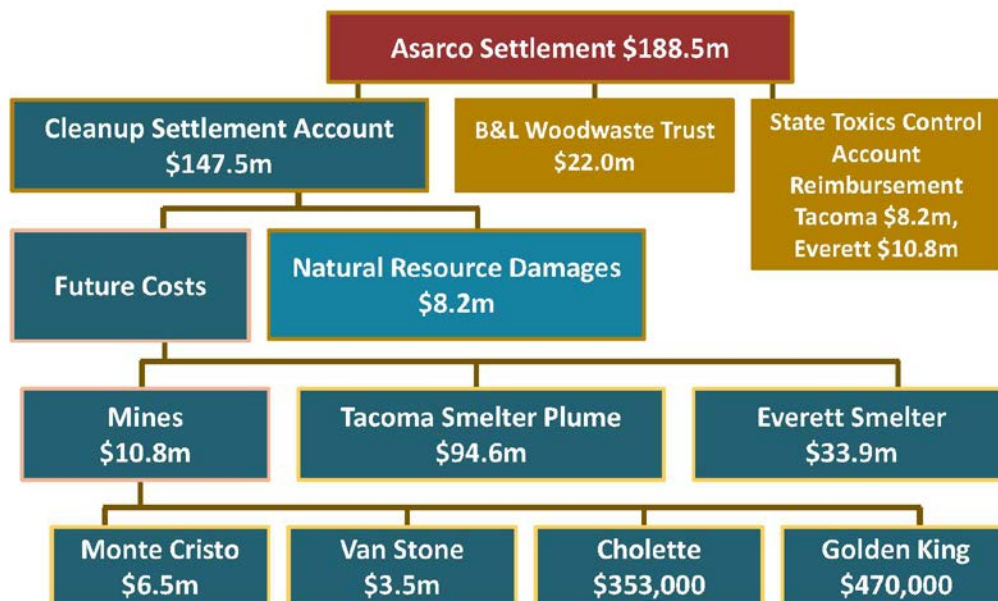


Figure 4: Asarco settlement breakdown.

Everett Smelter

At a glance

- **Total settlement:** \$33.9 million
- **County:** Snohomish
- **Total size:** 1.1 square miles
- **Cleanup focus:** Soils and groundwater

The smelter operated from 1894 to 1912 in northeast Everett. Smelter operations created widespread arsenic and lead contamination of soil and groundwater. Particles from smokestacks settled on surface soils over a 1.1 square mile area (see Figure 5).



Figure 5: Everett Smelter site

Settlement spending plan

In 2000, we developed a cleanup plan for the Everett Smelter using public input. After receiving the Asarco settlement, Ecology created a ten-year plan for settlement money (see Figure 6) based on the original cleanup plan and further input from the community. The plan addresses two areas impacted by the Everett Smelter operations: the mostly residential uplands area on the west side of the site, and the mostly industrial lowlands area east of East Marine View Drive, bordering the Snohomish River. Our plan includes:

- **Residential soil sampling and cleanup program:** This voluntary program provides free sampling and cleanup of accessible soils down to 2-3 feet.
- **Education and outreach:** This program serves both the general community and homeowners participating in the cleanup program.
- **Lowlands investigation and cleanup:** We are investigating groundwater and sediment contamination in the lowlands area. We will contain contamination to prevent it from entering the Snohomish River and do long-term monitoring.

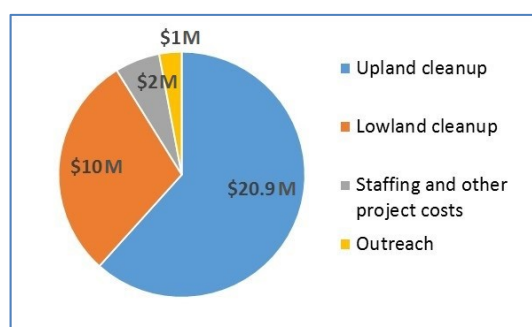


Figure 6: Everett Smelter breakdown of settlement money

Cleanup focuses on those most at risk

The Everett Smelter cleanup protects residents who are most at risk. People who live in the cleanup area are most likely to come into contact with contaminated soil while working or playing in their yards. Children are especially vulnerable. We began sampling and cleanup in areas closest to the former smelter site and will move outwards to properties further away as the work continues. We will remove soil with higher levels of contamination first to protect those who are most at risk.

Accomplishments through Fiscal Year 2020

Yard sampling and cleanups continue

We have cleaned up more than half of the properties in the cleanup area. In Fiscal Year 2020, we created cleanup plans for 21 residential properties. We talked with an additional 40 property owners to create cleanup plans for them.

In 2020, we offered sampling to over 80 new owners and owners who were not responsive in the past.

Cleanup of source of groundwater contamination in the Lowlands area

We completed the cleanup of smelter facility debris that was located below East Marine View Dr.

Ecology worked closely with the City of Everett to develop a plan to remove contaminated soil under the interchange of State Route 529 and E Marine View Drive. We removed material that was contaminating groundwater in the Lowlands area of the site.

City parks cleanups were completed

In the 2017-2019 capital budget, we received 2.7 million dollars from the State Building Construction Account to clean up Everett City parks located within the site. We worked closely with the City of Everett to design a cleanup plan for the Wiggums Hollow Park and the Viola Oursler Overlook. We solicited bids for the work in spring of 2018. Due to contracting delays, the contractor couldn't start work until February 2019. Work on both parks was completed in July 2019.



Figure 7: An Everett property after cleanup has been completed.

Additional funding is needed to continue with cleanup and sampling

We initially estimated the Everett Smelter site clean up to cost around \$64 million. We have dedicated \$33.9 million of the 2009 settlement funds to the Everett Smelter cleanup.

During the 2019 legislative session, the City of Everett worked with its legislative representatives to fund the next two years of an accelerated six-year plan to clean up Everett neighborhoods. In the 2019-21 biennium, we received an appropriation of \$5,492,000 from the Model Toxics Control Capital Account to fund ongoing work at the Everett Smelter site. In the 2021-23 biennium, Ecology is requesting \$10.1 million from the Model Toxics Control Capital Account to continue cleanup activities for the Everett Smelter site. That funding and any remaining settlement funds will:

- Clean up residential properties in the Northwest and Delta Neighborhoods.
- Sample soil in the remaining residential properties in the Delta and Northwest Neighborhoods.
- Support outreach and cleanup work for residential properties.
- Conduct post-cleanup monitoring to ensure effectiveness of the cleanup at the Marine Drive intersection.
- Complete storm drain lining and finalize a cleanup design study to reduce risk of contamination to the Snohomish River from contamination within the lowland cleanup area.
- Begin cleanup engineering design for areas in the lowlands.

Completing this work within the six-year planning timeframe will require an estimated \$16 million through the 2025-27 biennium. Funding estimates include our cleanup project staff dedicated to the Everett Smelter site work and estimated cleanup costs.

Tacoma Smelter Plume

At a glance

- **Total settlement:** \$94.6 million
- **Counties:** Pierce, King, Thurston
- **Total size:** Over 1,000 square miles
- **Cleanup focus:** Surface soils

The Tacoma smelter operated from 1890 to 1986, on the border of north Tacoma and the town of Ruston. Its smokestack emissions dispersed arsenic, lead, and other heavy metals across a 1,000 square mile area now called the Tacoma Smelter Plume.

Settlement spending plan

Using lessons from early cleanup work, Ecology developed a plan for the Asarco settlement. The plan has four main strategies:

- **Yard cleanups:** Soil replacement for existing residential yards in areas of highest contamination (see Figure 8).
- **Soil Safety Program:** Soil sampling and cleanup at school, childcare, park, and camp play areas.
- **Outreach and education:** Provide Dirt Alert outreach programs through health departments in King and Pierce counties.
- **Technical assistance:** Work with local governments and developers to encourage voluntary cleanup during development or redevelopment.

Additional funding for the future

The state made a bankruptcy claim for future environmental remediation costs for \$112.7 million. We received only \$94.6 million. We have managed this money resourcefully over the last ten years.



Figure 8: Tacoma Smelter Plume yard program service area.

As of Fiscal Year 2020, we have spent \$54,099,000. The actual fund balance is \$38,976,000, which reflects loans taken and some repayment (see Table 2). Assuming all loans are repaid, the remaining funds (estimated at more than \$48 million) will not be enough to cover the entire cost of estimated cleanup activities. The Cleanup Settlement Account funds for the Tacoma Smelter Plume will be depleted by Fiscal Year 2026 or 2027 (see Figure 9). By then, we estimate that 200 of the nearly 1,200 yards qualifying for soil replacement will still need cleanup.

With an additional \$14 million in other funds, we will be able to complete the remaining yard cleanups and continue outreach in the impacted communities. As we expect the appropriation from another fund to be in smaller amounts, we plan to reduce staffing and the number of yards completed each fiscal year. The work will be spread out over the next four biennia (Fiscal Years 2028 through 2033). Ongoing education and outreach will be necessary for the foreseeable future.

We are working to address the highest levels of contamination that affect human health in yards, parks, schools, and child cares, to protect the most vulnerable population for the foreseeable future. However, the contamination will always remain in the Tacoma Smelter Plume. It is spread over a vast area of 1,000 square miles and it can't be cleaned up in entirety with the state's limited resources.

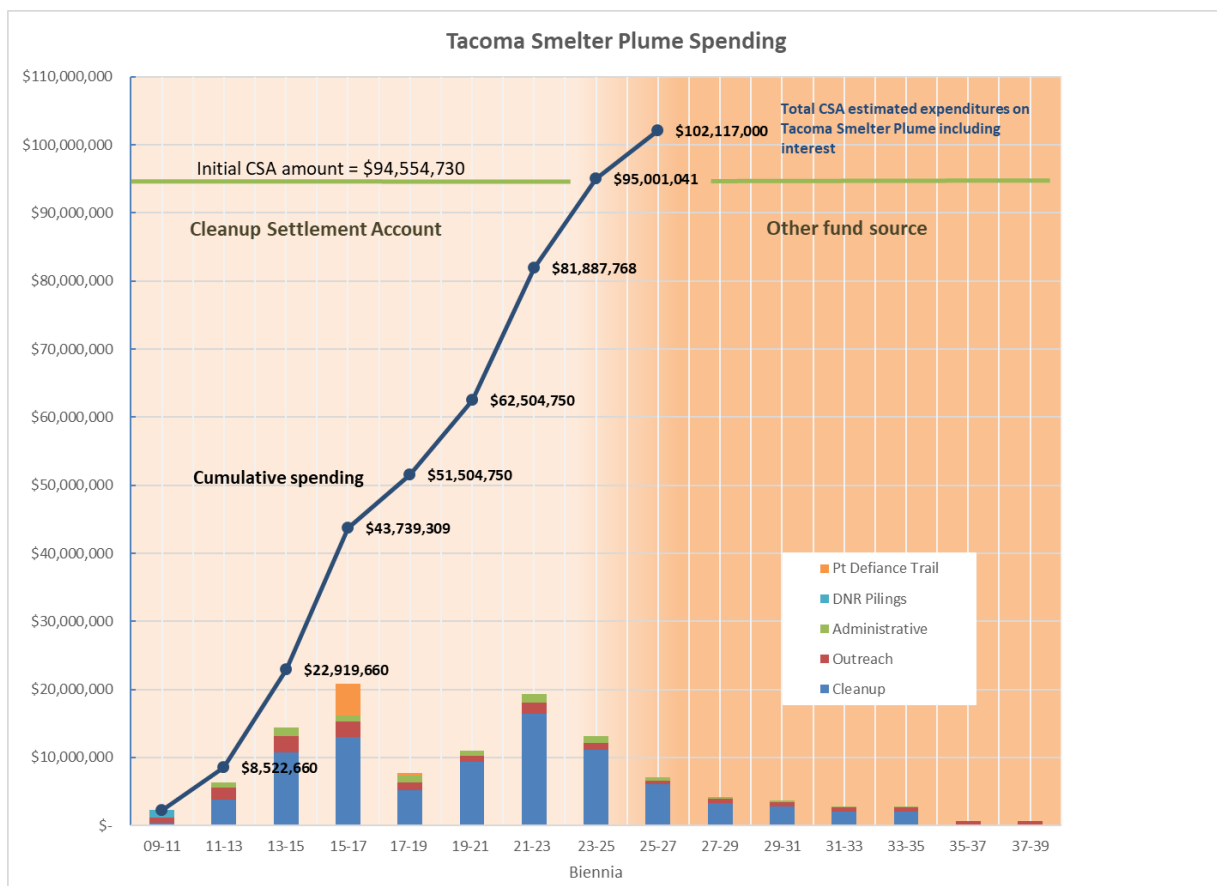


Figure 9: Tacoma Smelter Plume spending

Accomplishments through Fiscal Year 2020

Yard cleanup continues but has slowed down

The yard program has felt the negative effects of the Coronavirus (COVID-19) pandemic. Soil replacement work for two property groups was delayed due to the Governor's stay at home order. Despite the delays, we were able to move forward with this work in Fiscal Year 2020.

- We completed soil replacement work on a group of six properties and three childcare facilities in July 2020.
- In June 2020, we started soil replacement work on a group of 29 properties.



Figure 10: An Ecology contractor removes and replaces soil in a snowy yard in North Tacoma.

We paused work on a third group of 23 properties and one childcare due to the state's contracting freeze put in place to manage the economic uncertainty during the pandemic. Planning work for future groups is also delayed. Work will continue to be affected for the rest of 2020. We continue to evaluate how to best balance health and safety, and state budget constraints, as we try to keep contractors in the field working.

There are 1,191 residential yards which qualify for soil replacement. The Yard Program guidelines recommend soil replacement for yards with arsenic above 100 parts per million (ppm) or lead above 500 ppm. To date, we have replaced soil on 296 yards (see Figure 10).

Soil safety program continues work in areas where children play

In 2019, Ecology assessed and sampled seven childcare play areas. In 2020, we completed work on three childcares in Tacoma. There are three childcares in Pierce County and one in King County awaiting planning and soil replacement. COVID-19 is delaying this work from moving forward.

Dirt Alert! Behavior change for social good

Since 2000, Ecology has partnered with Tacoma Pierce County Health Department (TPCHD), and Public Health Seattle King County (PHSKC), to provide outreach and education to residents living in the Tacoma Smelter plume area. Their goal is to inspire behavior change through healthy actions to reduce exposure to lead and arsenic-contaminated soil (see Figure 11). Healthy actions are simple practices that include gardening with gloves, washing and peeling fruits and vegetables, removing shoes at the door, and covering bare patches of soil in the yard.

Highlights of PHSKC outreach:

- SoilSHOP (Soil Screening, Health, Outreach, and Partnership), provided free soil screening and education at the Vashon Island Farmer's Market.
- Through a grant, the Tilth Alliance seamlessly incorporated healthy actions into their own work around healthy gardening.

Highlights of TPCHD outreach:

- Presentations to school groups about handwashing and soil contamination.
- Contacted new homeowners who may not be aware of the contamination.
- Sampled soil for residential property owners while providing one-on-one education about healthy actions.
- Developing community garden signs to remind gardeners about the arsenic and lead in the soil.
- Advertised on 'Click!' digital streaming videos and an e-newsletter focusing on gardening, pets, and keeping kids safe.

In spring 2019, TPCHD and PHSKC each launched unique social marketing campaigns. PHSKC encouraged taking shoes off at the door. TPCHD promoted covering bare patches in the yard where kids play the most.

In March 2020, as a result of Governor Inslee's directives related to the Covid-29 pandemic, Ecology assigned staff to work remotely.

The directives related to Covid-19 pandemic has created a disruption in service and affected the ability to conduct outreach and educational activities in TPCHD and PHSKC. The health departments are continuing their work from remote locations and are supporting the COVID-19 response.



Figure 11: Raised vegetable planter at the South King County Tool Library.

Technical Assistance

We provide free technical advice to property owners and developers who clean up contamination on their property through our Voluntary Cleanup Program (VCP). We collaborate with local permitting offices in King, Pierce, and Thurston counties to encourage developers to replace soil during property development. In 2020, seven developers joined Ecology’s Voluntary Cleanup Program and cleaned 282 acres of contaminated soil within the Tacoma Smelter plume. Ecology determined no further action is required on these properties.



Figure 12: A new development in Fircrest that was constructed in 2019.

Harper Estuary, McNeil Island, and Ross Point

At a glance

- **Funding source:** Tacoma Smelter Plume Natural Resource Damage settlement - \$4.1 of the \$8.2M total
- **County:** Kitsap and Pierce

The Tacoma Smelter Plume Natural Resource Damage settlement has been used to help fund three restoration projects by the Washington Department of Fish and Wildlife (WDFW):

- **Harper Estuary:** The Harper Brick and Tile Company operated at Harper Estuary until the 1930s, when it was demolished. WDFW is leading restoration efforts with assistance from Kitsap County (see Figure 14).
- **McNeil Island Shoreline and Estuary:** WDFW is restoring shoreline at the Barge Landing site and restoring the Milewa Creek Estuary on the Island.
- **Ross Point in Sinclair Inlet:** WDFW is restoring shoreline at Ross Point in Sinclair Inlet. The restoration includes the removal of existing bulkheads.



Figure 13: Native vegetation along the restored Harper Estuary shoreline (Photo credit, Cristina Kereki, Kitsap County).

Restoration project highlights

- **Harper Estuary:** During 2016-2017, we worked with WDFW and Kitsap County to complete the first phase of restoration. Since completion of the first phase, Ecology continues to work to advance restoration, monitoring, and stewardship activities at Harper Estuary. In June 2019, we issued a one-time grant to Kitsap County (about \$500,000) to complete public outreach to guide completion of the Harper Park Improvement Plan, to complete park improvements that would improve public access, and to conduct post-construction monitoring of the restoration. In February 2020, the County completed community outreach. The resulting plan prioritizes some improvements to Harper Park. The improvements are ongoing, although COVID-19 restrictions have caused some delays. The County is also monitoring the estuary in partnership with Western Washington University and Washington Sea Grant.

- **McNeil Island shoreline and estuary:** We currently have an Interagency Agreement with WDFW for about \$400,000 to complete restoration design and construction at McNeil Island. In June 2020, WDFW completed a post-construction report for the shoreline restoration project at the Barge Landing site. The remaining funding is being directed towards construction, design, and permitting of the Milewa Creek Estuary Restoration project on the island.
- **Ross Point in Sinclair Inlet:** WDFW successfully completed the removal of the bulkhead in August 2019. In January and February 2020, WDFW completed replanting areas impacted by construction with native vegetation. WDFW and the Washington Conservation Corps (WCC) are performing ongoing invasive species control to ensure that native vegetation establishes and restoration remains successful.

Gathering public input

Kitsap County completed community outreach efforts to obtain public input to guide improvements for Harper Estuary. They held community meetings in late 2019 through spring of 2020 to support this effort. Ecology and WDFW provided comments on a draft improvement plan in October 2019. For projects on McNeil Island and at Ross Point, we incorporated feedback from community members and from the Suquamish, Squaxin Island, Nisqually, and Puyallup tribes to develop restoration plans and designs.

Next steps

- Ecology has extended a grant to Kitsap County to provide ongoing restoration, monitoring and construction of prioritized projects identified in the park improvement plan (e.g. invasive species removal and trail footbridge construction) at Harper Estuary.
- We also contracted with WDFW to provide ongoing technical support at Harper Estuary, to monitor the Ross Point Bulkhead removal after construction, and to complete restoration design planning for the Milewa Creek Estuary on McNeil Island.

B&L Woodwaste (Louisiana Pacific)

At a glance

- **Total settlement:** \$1.0 million
- **County:** Pierce
- **Total size:** 11 acres + wetlands
- **Cleanup focus:** Groundwater

In the 1970s and 1980s, the B&L Woodwaste landfill received woodwaste, soil, and slag from log sort yards in Commencement Bay. The slag—a byproduct of Asarco’s Tacoma smelter—leached arsenic into soils and groundwater. This contamination poses a threat to nearby Hylebos Creek (see Figure 15).



Figure 14: Landfill at the B&L Woodwaste site.

Cleanup liability and funding

Asarco, Murray Pacific, and Louisiana Pacific Corp. were among the parties found liable for cleanup. When Asarco went into bankruptcy in 2005, the other two companies pursued settlements jointly with the state. Most of Murray Pacific’s \$22 million settlement is held in a trust that is funding the majority of current cleanup work. The Cleanup Settlement Account holds an additional \$1 million for future work from Louisiana Pacific Company.

Cleanup accomplishments and remaining work

The B&L Woodwaste cleanup has three phases:

- **Phase 1, completed in 1992:** Asarco consolidated the original 18-acre site to an 11-acre landfill. It then installed a cap to minimize rainfall flushing metals and contaminated groundwater out of the landfill.
- **Phase 2, 2008 to early 2013:** We installed a slurry wall around the edge of the landfill. This underground barrier minimizes the flow of contaminated groundwater. We then built a facility to extract and treat groundwater from inside the slurry wall and from the nearby wetlands. Finally, we excavated contaminated sediments from the drainage ditches on three sides of the site.

- **Phase 3, 2015 to the present:** In 2017, as a part of an adaptive management plan to contain and reduce the arsenic plume, Ecology treated the groundwater with chemicals outside the landfill on nearby Washington State Department of Transportation (WSDOT) property. In September 2017, the groundwater treatment system was shut down and currently groundwater is being monitored quarterly.

We stopped groundwater treatment for several reasons. First, the system had already removed a large amount of contaminated groundwater outside of the landfill footprint. Second, we determined that the system was no longer necessary to control groundwater from flowing from inside the landfill outward through a geologic window beneath a sheet pile wall that surrounds the landfill. We have been monitoring groundwater for three years and the contaminant plume continues to reduce. The plume continues to decrease in the northern part of the site and is stable to decreasing in the eastern, western and southern parts of the site. Third, the annual operating cost of the system was quite high and the trust funds were running out. The operating budget for monitoring is considerably lower than when the system was in operation, and Ecology is able to keep the site in compliance.

In 2020, groundwater monitoring for arsenic contamination continues. Based on the groundwater monitoring data, Ecology will take necessary actions to control and contain the arsenic plume. In August 2020, additional soil sampling was conducted to investigate a possible ongoing source of elevated arsenic in groundwater in the WSDOT property.

Golden King Mine

At a glance

- **Total settlement:** \$0.5 million
- **County:** Chelan
- **Total size:** 13 acres
- **Cleanup focus:** Soil and stream water quality

The Golden King/Lovitt Mine (see Figure 15) is located near Wenatchee, on the west side of the Squillchuck Creek Drainage. There are an estimated 450,000 cubic yards of tailings deposited in a tailings impoundment in the bottom of Squillchuck Creek. ,



Figure 15: Golden King/Lovitt Mine.

Cleanup accomplishments and remaining work

- **2010-2017:** We negotiated access with private landowners.
- **2018-2019:** We developed a Cleanup Action Plan.
- **2019-2022:** We are conducting water quality monitoring, and have institutional controls to protect human health. We also have engineered controls such as capping and slope stabilization. We plan to continue these activities till 2022.

Ecology has been requesting access to this privately owned mine site since 2010. Although we have signed access with a number of landowners, one owner (of a single family residence) has repeatedly denied Ecology access to gather additional data in order to assess the risk of this site to human health and the environment. All of the documents needed for soil and drinking water sampling have been prepared by Ecology. These documents are still up to date and can be used if access to this site is ever granted. There is nothing Ecology can do until they get access.

Monte Cristo Mine

At a glance

- **Total settlement:** \$6.5 million
- **County:** Snohomish
- **Total size:** 54 mines and one mill
- **Cleanup focus:** Soil, surface water, and sediment

In the summer of 1889, settlers discovered this area and quickly established a mining town. It is a part of Mt. Hoop highway which is a big trail in the area. It is right next to South Fork Sauk river and within five miles of Darrington leading to a trailhead.

This area was mined for gold, silver, and lead.

In 1893, a railroad was completed to transport lead ore to the Everett smelter (see Figure 5 on page 8).

Mineral production flourished for a few years until massive floods destroyed rail access in 1897.

Mining became intermittent, operated by a number of smaller companies until 1920. The site is located on a mix of private and federal property. The Monte Cristo Mining Area is a popular historic mining town site and hiking area.

Cleanup accomplishments and remaining work

- 2011-2017: We conducted a Remedial Investigation and Feasibility Study.
- 2012-2013: We performed an environmental review, did a public outreach program, studied bat habitat and conducted a topographic survey.
- 2013-2015: We completed construction of access route and onsite repository.
- 2015-2016: We removed contaminated waste rock to repository, diverted and treated passive mine spill discharge, performed water quality monitoring and promoted revegetation.



Figure 16: Excavation to divert mine water drainage from entering streams on the site.

- 2016-2022: We completed United States Forest Service (USFS) interim action and are reviewing the USFS results for privately owned sites. We are also installing public health signs for visitors.

Accomplishments through Fiscal Year 2020

In 2015, the U.S. Forest Service (USFS) conducted an Interim Removal Action, which included excavating diversion ditches to keep contaminated mine water drainage from entering area streams. Construction is generally not allowed in wilderness areas, such as where the Monte Cristo mine openings are located. The remote location of the mining area required special permission from the U.S. Department of Agriculture (USDA) headquarters to shift pieces of heavy equipment used during cleanup. All heavy equipment had to be brought into these areas piece by piece, via helicopter and reassembled to be used to complete the passive diversion of mine drain water (see Figure 16).

In 2019, USFS continued monitoring stream water quality to assess stream health following the Interim Action and completed restoration of local flora that had been disturbed due to the excavation activities. Ecology will continue compiling data gathered for the privately owned mine sites in order to determine future remedial actions at the Monte Cristo Mining Area. The USFS will be closing the road to the Mining Area within the next few years, reducing access to the site. Remaining funds will be used for institutional controls (signs) warning users of the risks to human health from the remaining contaminated soil, surface waters, and mine opening.

Van Stone Mine

At a glance

- **Total settlement:** \$3.5 million
- **County:** Stevens
- **Total size:** ~150 acres
- **Cleanup focus:** Soil, sediment, surface water

The Van Stone Mine was the state's largest open-pit mine. It is located about 28 miles northeast of Colville. It operated from 1951 to 1994 under several owners, including Asarco. Approximately 270,000 tons of ore were extracted from 1.3 million tons of rock. The Upper Tailings Pile has broken twice, with the most recent event occurring in 2012.



Figure 17: Van Stone Mine

Cleanup accomplishments and remaining work

- **2014-2017:** We conducted a Remedial Investigation and Feasibility Study for soils, sediments, wastes, groundwater and surface water.
- **2017-2021:** We wrote a Cleanup Action Plan and created an Engineering Design for cleanup and cover systems at the upper and lower tailings, piles, and other areas identified during the investigation.
- **2021-2022:** We did cleanup and built the cover system and will continue this till 2022.
- **2023:** We will start operations and maintenance for the cover systems.

Accomplishments through Fiscal Year 2020

In 2019, we conducted long-term groundwater monitoring for arsenic contamination. The draft Cleanup Action Plan for the Van Stone Mine site is currently being developed and should be completed by fall of 2020.

Additional funding is needed to continue work

Settlement funds in the Cleanup Settlement Account earmarked for the Van Stone Mine site will not cover the cost of cleanup. Over the next two years, the settlement funds will be used to create an engineering design for cleanup, and to remove a small, unpermitted dam at the site. Additional funds outside of the Cleanup Settlement Account will be needed to continue planned cleanup activities. The preferred remedy identified in the Feasibility Study Report estimates the cleanup to cost approximately \$14 million.

Conclusion

Cleanup Settlement Account moves important cleanup projects forward

In Fiscal Year 2020, work continued on many of the cleanup projects funded by the Cleanup Settlement Account. One significant example is the sampling and cleanup work underway within the Everett Smelter. Ecology cleaned up more than half of the properties in the cleanup area. We developed cleanup plans for 21 residential properties and offered sampling to over 80 new owners and owners who were not responsive in the past. We removed material that was contaminating groundwater in the Lowlands area of the site and completed cleanup in Wiggums Hollow Park and Viola Oursler Overlook. On Maury Island, we completed capping work on an extensive trail and the cleanup project is complete and closed out. The Cleanup Settlement Account also moved forward cleanup, ongoing operations and maintenance, and water quality monitoring at sites like the B&L Woodwaste, Monte Cristo Mine, and the Van Stone Mine.

Work on some projects has slowed down. The Tacoma Smelter Plume site cleanup project was impacted by COVID-19. Because of 'stay at home orders' and freezes on hiring and contracting, Ecology delayed soil replacement on residential properties and childcares. We continue to evaluate how to best balance health and safety and state budget constraints as we try to keep contractors in the field working.

Work continues to move forward on restoration activities. We are working with WDFW and Kitsap County to advance maintenance, monitoring, and stewardship activities at Harper Estuary. We have directed funds towards two additional restoration projects—McNeil Island shoreline restoration and Ross Point bulkhead removal. The Cleanup Settlement Account makes this important work possible and moves this work forward.

Additional funding will be needed to complete some cleanup projects

At the end of Fiscal Year 2020, the remaining balance in the Cleanup Settlement Account was \$51,537,000 and the loans outstanding to the account total \$9,042,000. While significant, these settlement funds will not be enough to complete all phases of the cleanup projects.

In the future, sites like the Everett Smelter, Tacoma Smelter Plume, and Van Stone Mine will need to rely on other fund sources to pay for cleanup. In the past, we have requested and the Legislature has funded cleanup projects from the Model Toxics Control Act accounts. One example is at the Everett Smelter site. In the 2019-2021 biennium, we received \$5,492,000 from the Model Toxics Control Capital Account to fund ongoing Everett Smelter site work.

Every year, we identify more contaminated sites than can be cleaned up. As of June 30, 2020, more than 13,400 sites have been reported and more than 7,300 sites have completed cleanups. There is a growing buildup of contaminated sites that need cleanup, along with ongoing cleanups at existing sites (like the former Asarco sites). Additional funding will need to come from the Model Toxics Control Act accounts, or other funding sources identified by the Legislature, to continue moving many of these cleanups forward.

The Cleanup Settlement Account moves important cleanup projects forward by cleaning up pollution, supporting sustainable communities, and improving natural resources for present and future generations. With good management plans in place, and additional funding in the future, the cleanup work made possible through the Cleanup Settlement Account will continue for many more years.

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Appendices

Appendix A. Statutory Authority – RCW 70.105D.130

The statutory provision creating the Cleanup Settlement Account is currently codified in RCW [70A.305.130](#). The provision was amended by Engrossed Substitute Senate Bill 5993 in 2019. The provision, as amended, states:

- (1) The cleanup settlement account is created in the state treasury. The account is not intended to replace the model toxics control capital account established under RCW [70A.305.130](#). All receipts from the sources identified in subsection (2) of this section must be deposited into the account. Moneys in the account may be spent only after appropriation. Expenditures from the account may be used only as identified in subsection (4) of this section.
- (2) The following receipts must be deposited into the cleanup settlement account:
 - (a) Receipts from settlements or court orders that direct payment to the account and resolve a person's liability or potential liability under this chapter for either or both of the following:
 - (i) Conducting future remedial action at a specific facility, if it is not feasible to require the person to conduct the remedial action based on the person's financial insolvency, limited ability to pay, or insignificant contribution under [RCW 70A.305.130](#);
 - (ii) Assessing or addressing the injury to natural resources caused by the release of a hazardous substance from a specific facility; and
 - (b) Receipts from investment of the moneys in the account.
- (3) If a settlement or court order does not direct payment of receipts described in subsection (2)(a) of this section into the cleanup settlement account, then the receipts from any payment to the state must be deposited into the model toxics control capital account.
- (4) Expenditures from the cleanup settlement account may only be used to conduct remedial actions at the specific facility or to assess or address the injury to natural resources caused by the release of hazardous substances from that facility for which the moneys were deposited in the account. Conducting remedial actions or assessing or addressing injury to natural resources includes direct expenditures and indirect expenditures such as department oversight costs. During the 2009-2011 fiscal biennium, the legislature may transfer excess

fund balances in the account into the state efficiency and restructuring account. Transfers of excess fund balances made under this section may be made only to the extent amounts transferred with required repayments do not impair the ten-year spending plan administered by the department of ecology for environmental remedial actions dedicated for any designated clean-up site associated with the Everett smelter and Tacoma smelter, including plumes, or former Asarco mine sites. The cleanup settlement account must be repaid with interest under provisions of the state efficiency and restructuring account.

- (5) The department must track moneys received, interest earned, and moneys expended separately for each facility.
- (6) After the department determines that all remedial actions at a specific facility, and all actions assessing or addressing injury to natural resources caused by the release of hazardous substances from that facility, are completed, including payment of all related costs, any moneys remaining for the specific facility must be transferred to the model toxics control capital account established under RCW [70A.305.130](#)
- (7) The department must provide the office of financial management and the fiscal committees of the legislature with a report by October 31st of each year regarding the activity within the cleanup settlement account during the previous fiscal year.

Appendix B. Contaminated Site Information

You can find more information about the cleanup and restoration projects currently and formerly funded through the Cleanup Settlement Account by visiting the web pages for those projects, which are listed below.

- B&L Woodwaste cleanup: <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=2297>.
- BSNF Skykomish natural resource damages:
<https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=34>.
- City Parcel cleanup: <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=1023>.
- Cholette Mine cleanup: <https://fortress.wa.gov/ecy/publications/documents/1409082.pdf>.
(see page 19).
- Everett Smelter cleanup: <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites/Toxic-cleanup-sites/Everett-Smelter>.
- Golden King Mine cleanup: <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=2746>.
- Harper Estuary restoration: <http://westsoundwatersheds.org/default.aspx?ID=22>.
- Lilyblad Petroleum cleanup: <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=4329>.
- McNeil Island restoration: <https://www.dnr.wa.gov/mcneil-island-shoreline-restoration>.
- Maury Island Open Space cleanup:
<https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=1532>.
- Monte Cristo Mine cleanup: <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=4550>.
- Ross Point restoration: There is no webpage available.
- Tacoma Smelter Plume cleanup: <http://ecology.wa.gov/Tacoma-smelter>.
- Van Stone Mine cleanup: <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=461>.

For more information about the Toxics Cleanup Program, visit our website:

<https://ecology.wa.gov/About-us/Get-to-know-us/Our-Programs/Toxics-Cleanup>.