DEPARTMENT OF ECOLOGY
State of Washington

Washington Department of Ecology Budget & Program Overview 2019-21

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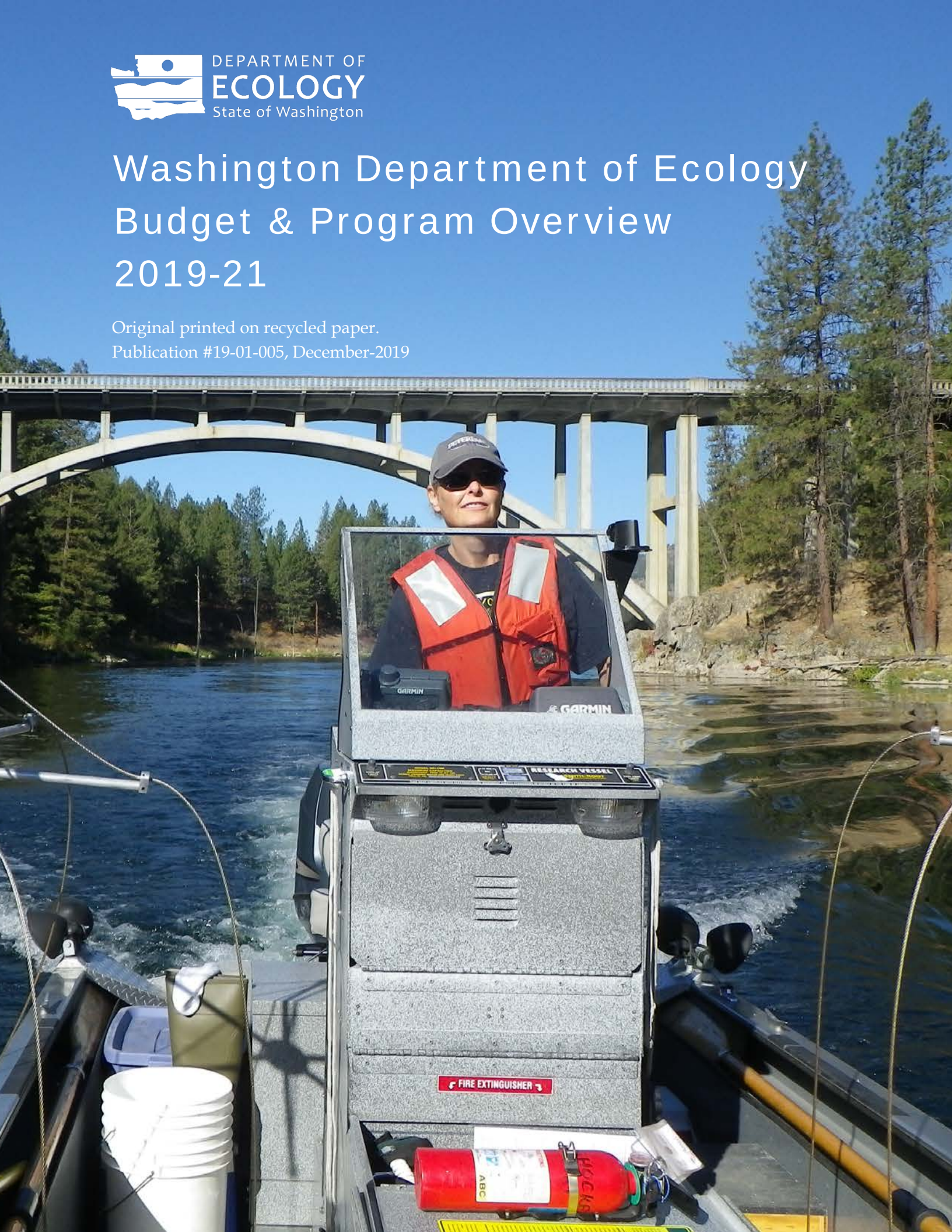

Publication and Contact Information

This document is available on the Department of Ecology's website at:

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- Central Regional Office, Union Gap..... 509-575-2490
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Cover photo: Patti Sandvik of the Environmental Assessment Program, Toxics Studies Unit, pilots the electrofish boat on the Spokane River for the collection of fish tissue samples.

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Message from the Director

I'm pleased to share the latest edition of our Budget and Program Overview book, highlighting our budget and work for the 2019–21 biennium.

As the state's lead environmental agency, our mission is to protect and preserve the environment for current and future generations. Our vision includes restoring Washington's environment and natural resources while valuing our economy.

Families, farms, fish and forests depend on clean water, clean air, and a healthy ecosystem to thrive. Innovative partnerships with tribes, businesses, conservation groups, agricultural producers, local governments, and Washingtonians from all walks of life set the stage for habitat restoration and natural resource stewardship. I have seen firsthand that working together for a healthy environment directly supports a robust economy.

Over the next two years, one of our highest priorities is supporting Southern Resident orca recovery. Orca, a beloved icon of the Pacific Northwest, are in grave danger. As a member of the Southern Resident Killer Whale Recovery Task Force, Ecology is developing and implementing a range of recommendations for orca recovery. Our recommendations include reducing toxics in our water and stronger oil-spill prevention measures.

Another priority of ours is addressing the recycling crisis caused by China's new and more restrictive laws. The new restrictions led us to pursue legislation and funding to reduce litter and help stabilize the recycling system in Washington. We are now creating a Recycling Development Center in Lacey that will spur innovative markets for recycled materials and help local governments reduce recycling contamination in their communities.

Through our capital budget dollars we are able to invest in communities throughout Washington to tackle environmental challenges that are decades old, such as pollution left behind from past commercial and industrial practices. We're helping restore these lands so they can be redeveloped to add value to our communities including supporting affordable housing.

The majority of our budget goes to local communities to help address environmental challenges. Polluted stormwater runoff that threatens the health of our water is being reduced by repairing and replacing failing sewage systems. Flooding hazards are being addressed with creative approaches by combining salmon recovery with river habitat restoration. And, as our climate warms, communities faced with diminished water supplies are receiving funds to help prepare for and manage the impacts of drought.

To be successful, we know we must engage and collaborate. By partnering, we can do great things. I hope this publication serves as a comprehensive guide describing our priorities and goals, and the breadth of our environmental work.

Sincerely,

Maia D. Bellon
Director

2019-21 Introduction – Agency Budget

Strategic Framework

Vision

Our innovative partnerships sustain healthy land, air and water in harmony with a strong economy.

Mission

Protect, preserve and enhance Washington's environment for current and future generations.

Our Commitment

- Perform our work in a professional and respectful manner.
- Listen carefully and communicate in a responsive and timely manner.
- Solve problems through innovative ways.
- Build and maintain cooperative relationships.
- Practice continuous improvement.

Goals

- Protect and restore land, air and water.
- Prevent pollution.
- Promote healthy communities and natural resources.
- Deliver efficient and effective services.

Strategic Priorities

- Reduce and prepare for climate impacts.
- Prevent and reduce toxic threats.
- Deliver integrated water solutions.
- Protect and restore Puget Sound.

This book provides an overview of Ecology's 2019-21 biennial budget—where the money comes from, how it will be used, and what we want to see happen as a result of our work. The book starts with a broad, agencywide view, and continues with profiles of individual programs.

Our work is incredibly complex and diverse, and that is reflected in our budget. We use up to 62 separate accounts and are the administrator of 54 of those accounts. Every even-numbered year, we submit a request to the Governor for our capital and operating budgets. These requests support our two-year strategic plan, and each individual budget request is tied to our strategic priorities and statewide performance goals. This ensures our resources support carefully planned and vetted activities and items. In odd-numbered years, we submit supplemental budget requests to address changing needs.

The 2019 Legislature passed a $590 million 2019-21 operating budget for Ecology. It includes significant new investments in clean energy, reducing toxic threats, and protecting and restoring Puget Sound. It also includes over $6.5 million in new direct funding to support orca recovery.

Our 2019-21 capital budget includes spending authority to invest dollars throughout Washington. Close to 65 percent of that money is passed through to our partners to do critical environmental work in their communities. Projects funded with this capital budget will improve water quality; clean up and prevent toxic sites; address air toxics and public health issues; protect, restore, or expand Ecology-owned facilities; and support orca recovery.

Our largest fund sources supporting work at Ecology come from the Hazardous Substance Tax (HST). Revenue from this tax is deposited into the Model Toxics Control Act (MTCA) accounts, and money from those accounts is appropriated for Ecology's operating and capital budgets. The 2019 Legislature passed ESSB 5993, reforming the financial structure of the Model Toxics Control Program. This replaced three MTCA accounts with three new accounts and changed the HST structure for liquid petroleum products from a value-based tax to volume-based.

August 2019 was the first month of revenue collections under the new HST structure, and much is still unknown about how ESSB 5993 will affect actual revenue collections in the future. Ecology will be working with stakeholders, the Governor's Office, and Legislature to determine how best to use the funding available to address Washington's environmental priorities.

In this book, each program's profile includes context for its work and descriptions of the activities funded in the 2019-21 operating and capital budgets, including the intended results and how performance will be measured. Throughout the book, pie charts and tables are used to show the source of funding and how it is allocated. Information about our accounts is in the back of the book.

Executive Leadership Team – Directory

Director and Deputy Director

Director	Maia Bellon	360-407-7001
Confidential Assistant	Teri North	360-407-7009
Deputy Director	Polly Zehm	360-407-7011
Confidential Assistant	Patricia Thronson	360-407-7014

Office of the Attorney General

Assistant Attorney General for Ecology	Laura Watson	360-586-6743

Program Administration Directors

Administrative Services	Jason Norberg	360-407-6829
Communications	Sandi Peck	360-407-7004
Financial Services	Erik Fairchild	360-407-7005
Government Relations	Denise Clifford	360-407-7003
Human Resources	Sandi Stewart	360-407-6218
Information Technology Services	Cristie Fredrickson	360-407-7048
Office of Chehalis Basin	Andrea McNamara Doyle	360-407-6548
Office of Columbia River	Tom Tebb	509-574-3989
Special Assistant to the Director	Stu Clark	360-407-7600
Special Assistant to the Director	Sharlett Mena	360-407-7012

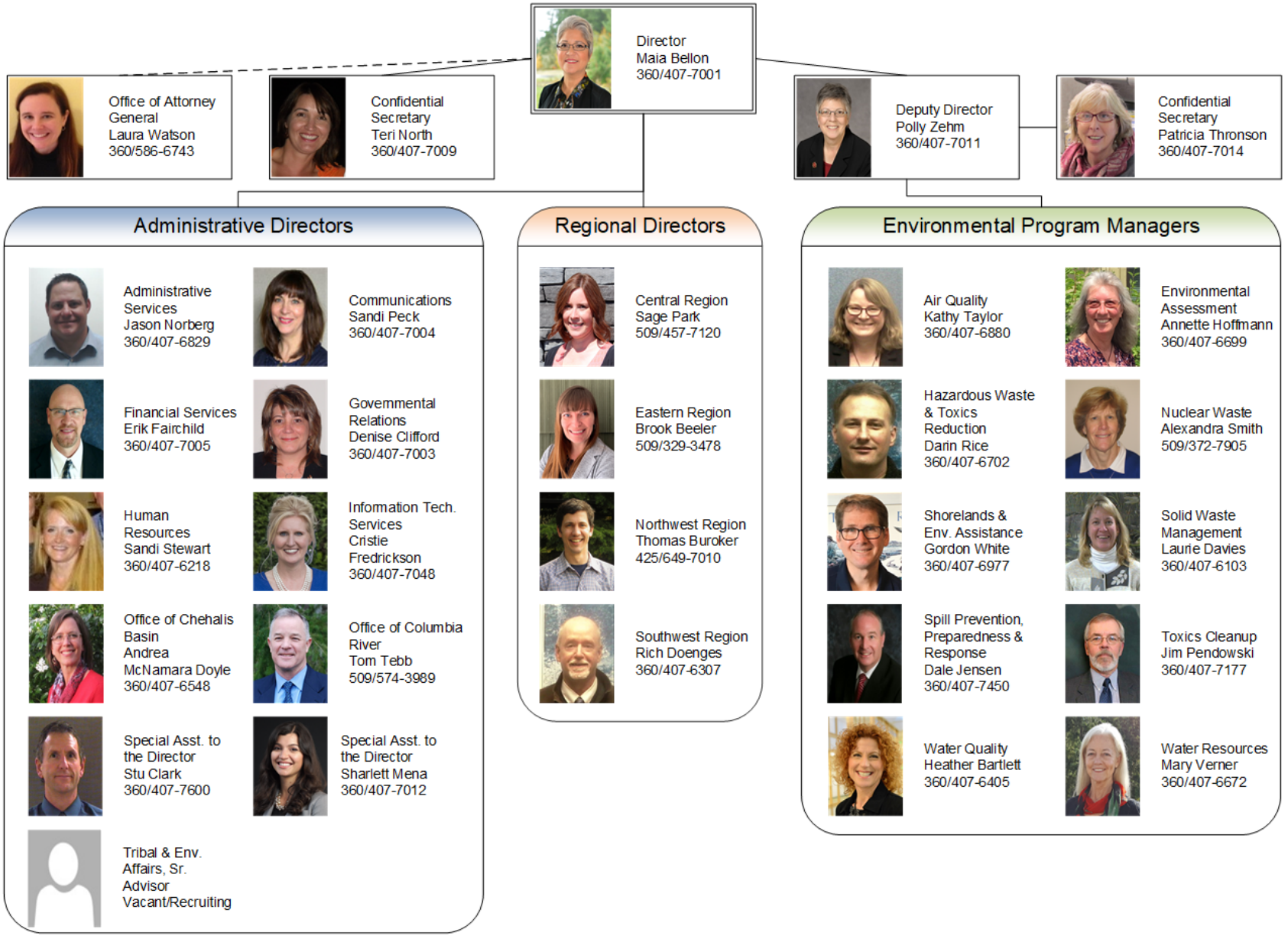
Regional Office Directors

Central	Sage Park	509-457-7120
Eastern	Brook Beeler	509-329-3516
Northwest	Tom Buroker	425-649-7010
Southwest	Rich Doenges	360-407-6307

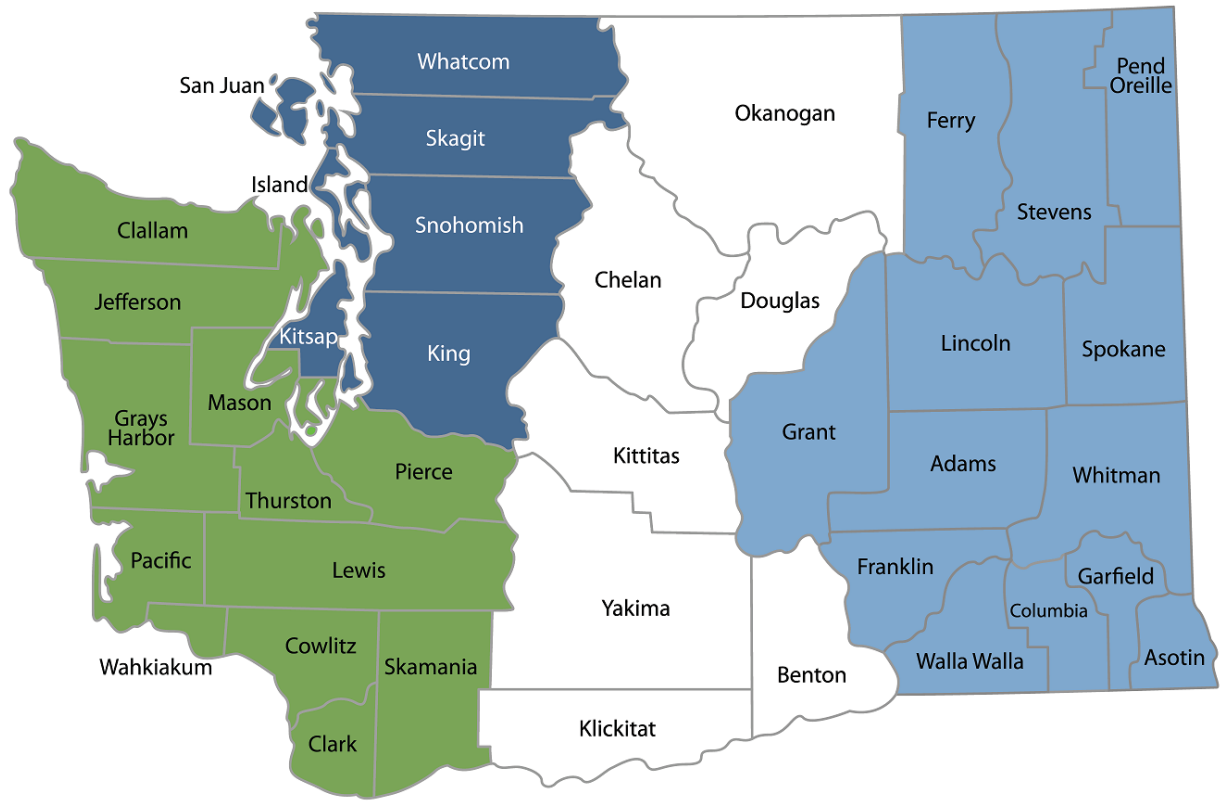
Environmental Program Directors

Air Quality	Kathy Taylor	360-407-6880
Environmental Assessment	Annette Hoffmann	360-407-6699
Hazardous Waste	Darin Rice	360-407-6702
Nuclear Waste	Alexandra Smith	509-372-7905
Shorelands & Environmental Assistance	Gordon White	360-407-6977
Solid Waste Management	Laurie Davies	360-407-6103
Spills Prevention	Dale Jensen	360-407-7450
Toxics Cleanup	Jim Pendowski	360-407-7177
Water Quality	Heather Bartlett	360-407-6405
Water Resources	Mary Verner	360-407-6672

Executive Leadership Team – Organizational Chart



Headquarters & Regional Offices



Headquarters

Mailing: PO Box 47600, Olympia, WA 98504-7600

Street: 300 Desmond Drive SE, Lacey, WA

Phone: 360-407-6000

Northwest Regional Office

Counties served: Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom

Street: 3190 160th Avenue SE, Bellevue, WA 98008-5452

Phone: 425-649-7000

Central Regional Office

Counties served: Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima

Street: 1250 West Alder Street, Union Gap, WA 98903-0009

Phone: 509-575-2490

Southwest Regional Office

Counties served: Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, and Wahkiakum

Mailing: PO Box 47775, Olympia, WA 98504-7775

Street: 300 Desmond Drive SE, Lacey, WA

Phone: 360-407-6300

Eastern Regional Office

Counties served: Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman

Street: N. 4601 Monroe Street, Suite 202, Spokane, WA 99205-1295

Phone: 509-329-3400

Field Offices

Bellingham Field Office

Street: 913 Squalicum Parkway, Suite 101, Bellingham, WA 98225-2078

Phone: 360-255-4400

Vancouver Field Office

Street: 12121 NE 99th Street, Suites 2100-2120, Vancouver, WA 98682-2346

Phone: 360-690-7171

Program Locations

Ecology Nuclear Waste Program, Richland Office

Street: 3100 Port of Benton Boulevard, Richland, WA 99354-1670

Phone: 509-372-7950

Office of Columbia River[1]

Street: 1250 West Alder Street, Union Gap, WA 98903-0009

Phone: 509-574-3989

Padilla Bay National Estuarine Research Reserve[2]

Street: 10441 Bayview-Edison Road, Mt. Vernon, WA 98273-9668

Phone: 360-428-1558

Limited Purpose Locations

Staff are available by appointment only in these offices.

Manchester Environmental Laboratory

Street: 7411 Beach Drive East, Port Orchard, WA 98366

Phone: 360-871-8800

Laboratory Accreditation Office

Mailing: PO Box 488; Manchester, WA 98353-0488

Street: 7411 Beach Drive East, Port Orchard, WA 98366

Phone: 360-871-8840

Environmental Assessment Program, Operations Center

Mailing: PO Box 47710; Olympia, WA 98504-7710

Street: 8270 28th Court, NE; Lacey, WA 98516-7148

Phone: 360-480-9224

Methow Valley Water-Master Office

Street: 134 Riverside Avenue, Suite E, Winthrop, WA 98862

Phone: 509-996-8273

Walla Walla Water-Master Office

Street: 500 Tausick Way, Walla Walla, WA 99362-9270

Phone: 509-329-3400

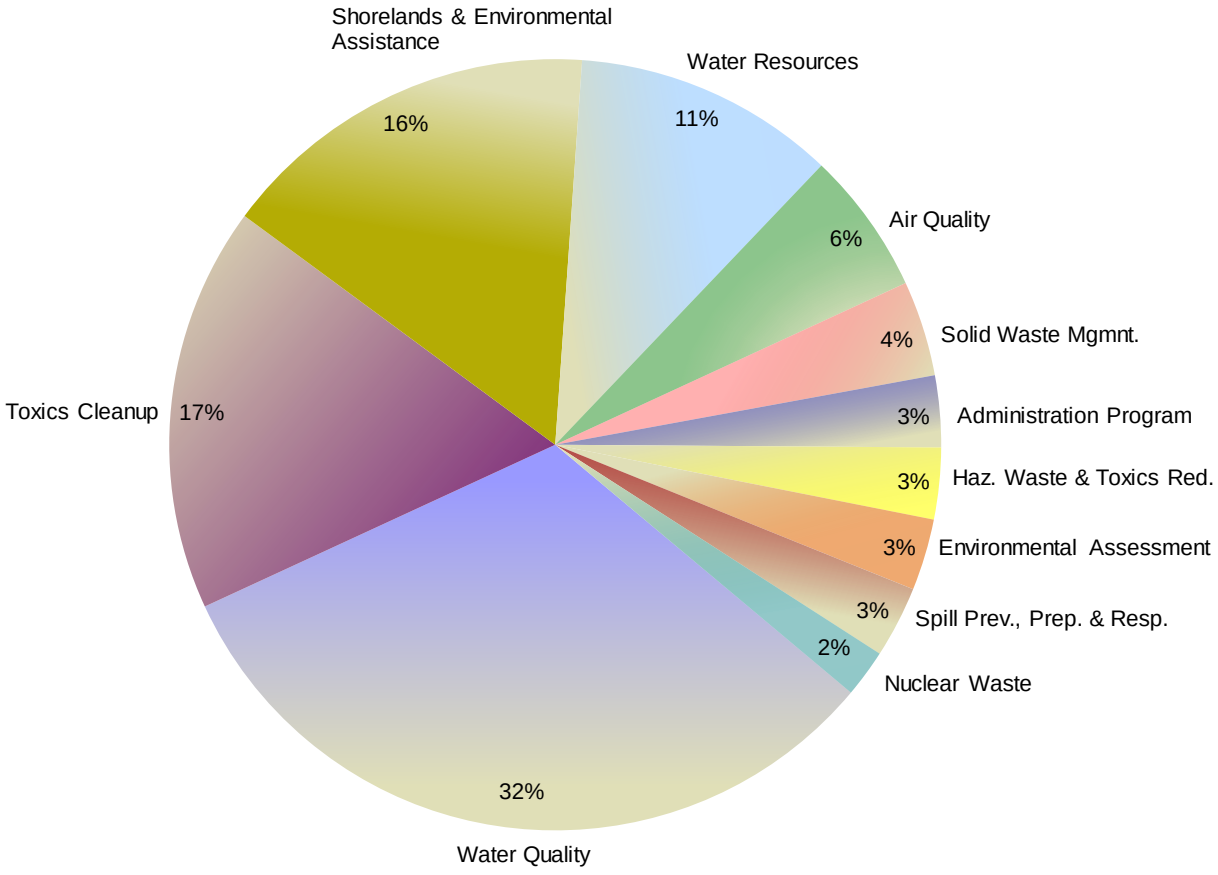
[1] The Office of Columbia River is located within the Central Regional Office located in Union Gap.

[2] The Reserve is managed by Ecology's Shorelands and Environmental Assistance Program.

2019-21 Biennium Budget $1.5 Billion

Ecology carries out its mission through 10 environmental programs, plus agency administration. Our combined Operating and Capital Budget is divided among these programs and includes funds Ecology will pass through to other entities.

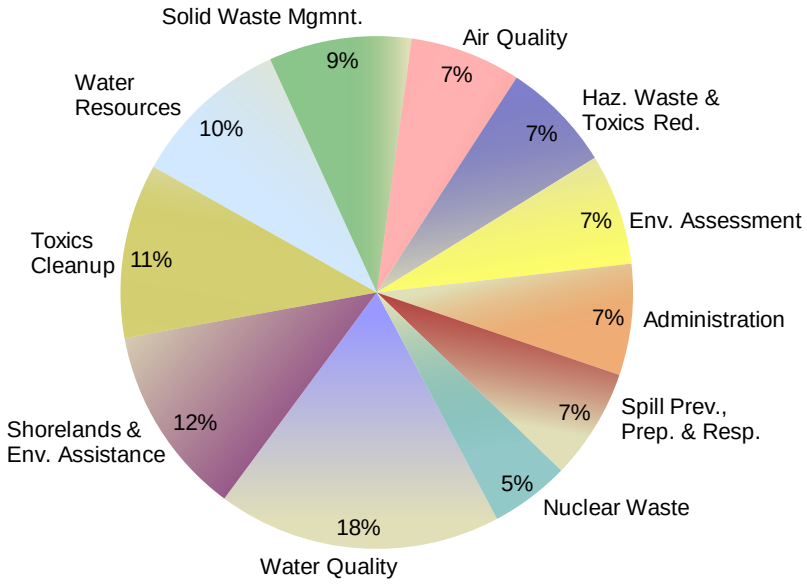
Programs	FTEs	Operating	Capital	Operating + Capital	%
Water Quality	266.8	$105,898,000	$387,323,194	$493,221,194	32%
Toxics Cleanup	204.4	63,749,000	197,193,747	260,942,747	17%
Shorelands & Environmental Assistance	169.8	71,065,000	178,322,020	249,387,020	16%
Water Resources	173.5	59,835,000	97,291,305	157,126,305	11%
Air Quality	133.9	43,730,000	54,462,340	98,192,340	6%
Solid Waste Management	125.6	55,284,000	3,999,564	59,283,564	4%
Administration Program	168.4	39,269,000	7,553,495	46,822,495	3%
Hazardous Waste & Toxics Reduction	140.2	42,881,000	3,920,404	46,801,404	3%
Environmental Assessment	164.3	42,267,000		42,267,000	3%
Spill Prevention, Preparedness & Response	91.2	38,760,000		38,760,000	3%
Nuclear Waste	97.5	27,646,000	1,992,011	29,638,011	2%
Total	**1,735.6**	**$590,384,000**	**$932,058,080**	**$1,522,442,080**	**100%**



2019-21 Biennium Operating Budget[3] $590.4 Million

By Program

Programs	Operating	%
Water Quality	$105,898,000	18%
Shorelands & Env. Asst.	71,065,000	12%
Toxics Cleanup	63,749,000	11%
Water Resources	59,835,000	10%
Solid Waste Management	55,284,000	9%
Air Quality	43,730,000	7%
Hazardous Waste and Toxics Reduction	42,881,000	7%
Environmental Assessment	42,267,000	7%
Administration[4]	39,269,000	7%
Spill Prevention, Prepared-ness & Response	38,760,000	7%
Nuclear Waste	27,646,000	5%
Total	**$590,384,000**	**100%**



By Fund Source

General Funds	Amount	%
General Fund – Federal (001)	$110,053,000	18.6%
General Fund – State (001)	59,946,000	10.2%
General Fund – Private/Local (001)	23,406,000	4.0%
Dedicated Accounts	**Amount**	**%**
Model Toxics Control Operating (23P)	$237,148,000	40.2%
Water Quality Permit (176)	47,872,000	8.1%
Waste Reduction, Recycling, & Litter Control (044)	24,411,000	4.1%
Radioactive Mixed Waste (20R)	19,626,000	3.3%
Oil Spill Prevention (217)	11,351,000	1.9%
Hazardous Waste Assistance (207)	7,150,000	1.2%
Oil Spill Response (223)	7,076,000	1.2%
Reclamation (027)	4,906,000	0.8%
Air Operating Permit (219)	4,679,000	0.8%
Air Pollution Control (216)	4,452,000	0.8%
Flood Control Assistance (02P)	4,174,000	0.7%
Underground Storage Tank (182)	3,963,000	0.7%
Water Pollution Control Revolving Administration (564)	3,858,000	0.7%
Pension Funding Stabilization (489)	2,920,000	0.5%
Biosolids Permit (199)	2,703,000	0.5%
Worker & Comm. Right-to-Know (163)	1,995,000	0.3%
Freshwater Aquatic Weeds (222)	1,497,000	0.3%
Coastal Protection (408)	1,064,000	0.2%
Watershed Restoration & Enhancement (22K)	1,000,000	0.2%
Dedicated Marijuana (315)	929,000	0.2%
Electronic Products Recycling (11J)	829,000	0.1%
Site Closure (125)	582,000	0.1%
Wood Stove Ed. & Enforcement (160)	577,000	0.1%
Aquatic Algae Control (10A)	528,000	0.1%
Model Toxics Control Operating - Private/Local (23P)	499,000	0.1%
Product Stewardship Programs (16T)	248,000	<0.1%
State Drought Preparedness (05W)	204,000	<0.1%
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	183,000	<0.1%
Paint Product Stewardship (23W)	182,000	<0.1%
Basic Data (116)	170,000	<0.1%
Photovoltaic Module Recycling (22G)	76,000	<0.1%
Water Rights Tracking System (10G)	48,000	<0.1%
State Emergency Water Projects Revolving (032)	40,000	<0.1%
Water Rights Processing (16V)	39,000	<0.1%
Total	**$590,384,000**	**100.0%**

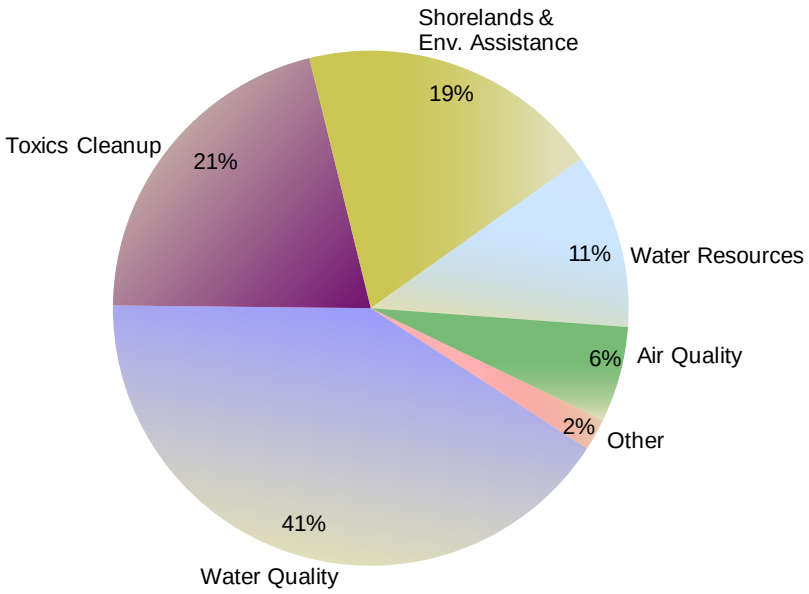
[3] Source: 2019-21 enacted operating budget allotment control totals.

[4] The agency *Administration Program* is funded by operating and capital budgets and is a small percentage (3%) of the total budget. See the agency *Administration Program* section for more detail.

2019-21 Biennium Capital Budget[5] $932.1 Million

By Program

Programs	Capital	%
Water Quality	$387,323,194	41%
Toxics Cleanup	197,193,747	21%
Shorelands & Environ-mental Assistance	178,322,020	19%
Water Resources	97,291,305	11%
Air Quality	54,462,340	6%
Other:		
Administration	7,553,495	<1%
Solid Waste Management	3,999,564	<1%
Hazardous Waste & Toxics Reduction	3,920,404	<1%
Nuclear Waste	1,992,011	<1%
Total	**$932,058,080**	**100%**



By Fund Source

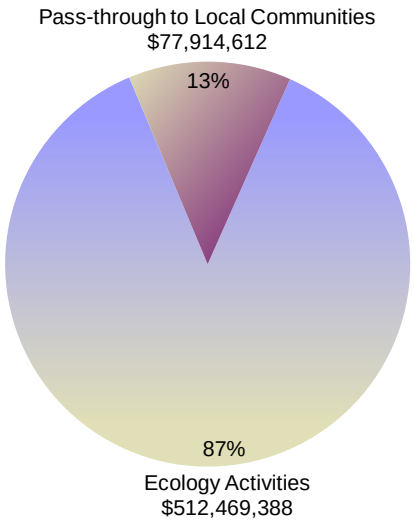
Accounts	Amount	%
State Building Construction (057)	$379,012,891	40.6%
Water Pollution Control Revolving – State (727)	168,840,000	18.1%
Model Toxics Control Capital (23N)	143,364,541	15.4%
Model Toxics Control Stormwater (23R)	59,310,287	6.4%
Water Pollution Control Revolving – Federal (727)	52,836,075	5.7%
General Fund – Private/Local (001)	36,855,484	4.0%
Cleanup Settlement (15H)	36,021,894	3.9%
Air Pollution Control (216)	16,871,876	1.8%
Watershed Restoration and Enhancement Bond (366)	15,000,000	1.6%
Columbia River Basin Water Supply Development (10P)	9,856,844	1.1%
General Fund – Federal (001)	8,717,101	0.9%
Site Closure (125)	1,992,011	0.2%
State Drought Preparedness (05W)	1,838,000	0.2%
Waste Tire Removal (08R)	1,496,387	0.1%
Columbia River Basin Taxable Bond Water Supply Development (18B)	44,689	<0.1%
Total	**$932,058,080**	**100.0%**

[5] Source: 2019-21 enacted capital budget allotments.

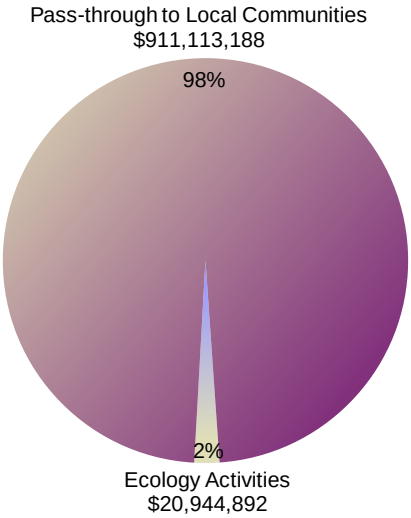
2019-21 Biennium Pass-through Funding[6] $989.0 Million

Most of the money Ecology manages is "passed through" to local governments and communities to do environmental work. This money is awarded as grants or loans and is also contracted directly for things such as floodplain management and habitat improvement, water supply development and instream flow protection, local solid waste management and air toxics prevention, building water pollution control facilities, cleaning up publicly-owned and orphaned or abandoned contaminated sites, local Washington Conservation Corp placements, and supporting community awareness and involvement in hazardous waste management and pollution prevention.

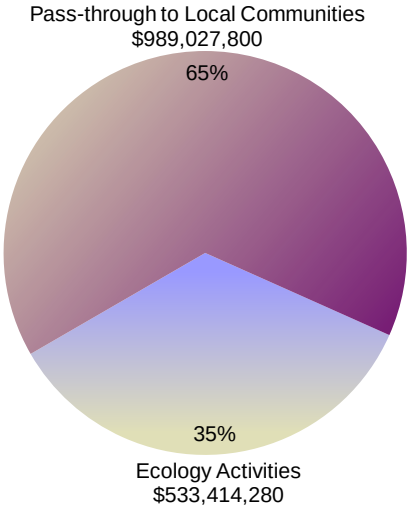
Operating Budget = $590.4 Million



Capital Budget = $932.1 Million



Combined Operating +Capital Budget = $1.5 Billion



[6] Later in this publication is additional information on pass-through funding; see *Ecology's Data – Where It Comes From.*

Jenny Li and Will Wallace of the Air Quality Program install a mobile air quality monitor as part of a study to measure particle pollution at San Juan Island.

Air Quality Program

Program Mission

The mission of the Air Quality Program is to enhance and protect air quality in Washington State.

Environmental Threats

Air pollution is a public health concern. Air pollution causes lung disease, worsens existing heart and lung diseases, increases chronic breathing problems, elevates cancer risks, and decreases lung function in children—making them more vulnerable to chronic lung disease as adults. Air pollution can also contribute to early death. Ecology estimates more than 1,000 premature deaths and hundreds of millions of dollars in societal costs are attributable to air pollution each year in Washington.

The U.S. Environmental Protection Agency (EPA) sets national ambient air quality standards for six air pollutants. EPA strengthens these standards over time based on strong scientific evidence about the effects on public health and the environment. Fifteen communities around the state are at risk of violating the federal standard for fine particulates. In late 2015, EPA tightened its ground-level ozone standard. Two large areas in the state surrounding Seattle and the Tri-cities are at risk of violating the new health-based limit.

Meeting federal standards is very important. It reduces illnesses and health care costs associated with air pollution and lowers the risk of substantial financial and economic impacts on the state, local communities, businesses, and residents. The latest scientific studies show air pollution harms health, even at levels that do not violate federal standards. Many communities that meet standards may exceed "unhealthy" pollution levels multiple times a year, exposing residents to significant health risks.

Extremely fine particles in smoke and diesel engine exhaust are primary air pollution health concerns in Washington. However, hundreds of other chemicals, known as toxic air pollutants, enter the atmosphere from a wide variety of sources. Regulations require emission controls for many sources that emit air toxics, but there are currently no health-based outdoor air standards for these chemicals. Studies are increasingly showing they pose significant risks to human health and the environment.

Air pollutants also contaminate man-made materials, property, and soil, and damage vegetation, crops, animals, and wildlife; they impair visibility and affect the climate. Toxic air pollutants are not only emitted to the air and breathed by people, but are deposited to the land and waters of the state. Studies show a significant pollution source to water quality and marine and river sediments is pollution in the air that lands directly in water or on land where rainwater carries the pollutants to surface water.

Increases in levels of carbon dioxide and other greenhouse gases pose a major threat to public health and the environment in Washington. Studies show that climate change will result in more extreme and frequent wildfires, posing a threat to public safety and resulting in hazardous levels of

particle pollution. Climate change is linked to higher levels of ozone near the ground, which harms people's health and puts areas in Washington at risk of failing to meet the more stringent federal standards.

Authorizing Laws

- *Federal Clean Air Act*
- *Chapter 43.21M RCW, Integrated Climate Change Response Strategy*
- *Chapter 70.120 RCW, Motor Vehicle Emission Control*
- *Chapter 70.120A RCW, Motor Vehicle Emission Standards*
- *Chapter 70.235 RCW, Limiting Greenhouse Gas Emissions*
- *Chapter 70.94 RCW, Clean Air Act*
- *Chapter 80.80 RCW, Greenhouse Gas Emissions*

Constituents/Interested Parties

- *Motorists, transportation agencies, and motor vehicle related businesses.*
- *Business, industry, and affiliated trade associations.*
- *Wood stove and fireplace users, manufacturers, and related businesses.*
- *Agricultural businesses.*
- *Public health community.*
- *General public.*

Issues

Reducing Health Risks from Air Pollution

Over the past several years, hundreds of scientific studies have been conducted on the health effects of air pollution. These studies consistently show air pollution, mainly fine particle pollution and ozone pollution, are more dangerous to human health than previously thought. Exposure to levels of pollution well below EPA's existing national air quality standards can result in a range of diseases and, in some cases, premature death. Ecology estimates that fine particle pollution alone contributes to approximately 1,100 premature deaths and more than $190 million in costs of diseases each year in Washington. This motivates Ecology's efforts to identify and implement new strategies to protect public health from fine particle air pollution.

Addressing Violations of Federal Standards

EPA is required to use the most current health information to set air quality standards that are protective of public health. In the last decade, EPA has adopted tougher outdoor air quality standards for fine particulates, nitrogen dioxide, ozone, and sulfur dioxide. Ecology must continue to assess and adapt its air pollution prevention and control policies, tools, and approaches to meet these cleaner air standards, limit public exposure to toxic air pollution, and avoid the economic sanctions that come when areas violate federal standards.

Developing federally required clean air plans for areas that violate standards will significantly increase monitoring, technical analysis, and strategy development work for Ecology. This need for more resources comes at a time when federal grants to the state for air quality protection are projected to decline.

Reducing Harmful Diesel Pollution

Ecology has identified diesel exhaust fine particulates as the air pollutant most harmful to public health in Washington. Seventy percent of the cancer risk from airborne pollutants is from diesel exhaust fine particulates. It makes healthy people more at risk for respiratory disease and worsens the symptoms of people with health problems such as asthma, heart disease, and lung disease. Nearly five million people in Washington live or work close to highways, ports, and other major transportation corridors where they are most likely to be exposed to diesel exhaust.

Ecology's diesel strategy decreases the amount of diesel pollution emitted into the air and reduces the negative health effects of

diesel pollution—especially for children, the elderly, and sensitive populations whose existing health problems put them at higher risk, and economically disadvantaged communities that are exposed to more air pollution.

Ecology's clean diesel grant program provides and installs better emissions controls on older vehicles and equipment; scraps and replaces old, high-polluting vehicles with new, low-emission vehicles; repowers old, high-polluting engines with new, low-emission engines; and installs idle-reduction equipment to reduce emissions created by unnecessary engine idling time. Replacing or retrofitting these older vehicles typically reduces toxic emissions by 30 to 99 percent.

The clean diesel grant program has upgraded over 15,000 diesel engines, resulting in reductions of more than 68 tons of diesel particulates each year. School bus retrofits and replacements have reduced exposure of toxics emissions for the 440,000 children that ride school buses.

The benefits to human health outweigh the costs of reducing diesel pollution. The California Air Resources Board has found that every dollar invested in reducing diesel emissions results in three to eight dollars in savings in improved health, avoided health problems, and lowered operating and maintenance costs for diesel fleets. In all, the Union of Concerned Scientists estimates that, for every dollar invested in diesel retrofits, nine to sixteen dollars are returned to society.

Reducing Harmful Smoke Pollution

Ecology has determined that fine particle smoke pollution from residential wood-burning and similar activities is the second greatest toxic threat from air pollution in Washington. In addition, burning household trash (illegal in Washington), yard waste, debris from land clearing, and agricultural and forest waste materials all create significant amounts of air pollution that harm public health. Washington's clean air law defines which types of outdoor burning are allowed and where.

The most significant public health concern comes from using wood for home heating. During winter months, stagnant weather conditions and smoke from wood heating devices contribute to serious air quality problems in multiple communities throughout the state. Pollution from this source is a major factor in violations of the federal fine particle standard and for areas that measure levels close to the federal standard.

Ecology and local air quality agencies are taking steps to reduce this pollution by issuing home-heat burn bans on days when pollution levels spike upward. Ecology also offers incentives to people in the most affected areas to trade out older, more polluting wood stoves with newer, cleaner models, or switch to alternative forms of heat, such as gas or electricity. Ecology will implement stricter federal standards for new wood stoves. These standards will go into effect May 15, 2020.

Ecology and its local air agency partners have replaced over 5,300 uncertified wood stoves with cleaner forms of home heaters. These replacements are targeted to lower-income, high wood-burning homes in communities that are at high risk of violating the standard.

The desire to burn can collide with the demand for clean air. Pressure to burn agricultural and horticultural debris is likely to increase. Land clearing and backyard burning to reduce yard waste are common practices in some communities. There is also increased interest in prescribed burning to prevent or reduce the risk of wildfire. In 2019, Governor Inslee signed legislation allowing the Department of Natural Resources (DNR) to issue permits in urban growth areas for outdoor burning that reduce the risk of wildfire. Ecology is working with DNR to help monitor and reduce smoke impacts to

communities and to update the statewide Smoke Management Plan.

There is also increased interest in burning biomass for energy, including burning wood and other organic wastes, in part to offset greenhouse gas emissions associated with burning fossil fuels. At the same time, pressure to reduce burning is increasing. People understand the health consequences of breathing smoke particles and do not like to be "smoked out." Ecology expects more changes in burning laws and regulations as state and local agencies struggle to find the balance between clean air, reasonable alternatives to burning, and acceptable burning practices.

Visibility and Regional Haze

Residents complain when air pollution haze affects scenic views like Mt. Rainier, the Olympics, and the Columbia Gorge. Federal law requires the state to eliminate human-caused visibility impairment in our national parks and wilderness areas by 2064. Ecology evaluated pollution sources that contribute to haze and submitted its plan to EPA. The plan contains industrial source controls and other strategies to achieve and maintain federally required visibility goals. The visibility plan must be updated by 2021 to ensure the state makes further progress toward the federal goals.

Responding to Climate Change

To make meaningful reductions in greenhouse gas emissions, the public, industry, and policy-makers must know what activities emit those gases and how much they emit. Ecology has a specific role to create a high-level emissions inventory that catalogues emissions for the state over time, by industry, and by other economic sectors. Law also requires Ecology to operate a greenhouse gas reporting program that requires entities that emit certain quantities of greenhouse gases to report those emissions. This information is used to better inform and guide future federal and state climate policy direction and decisions that target emissions reductions across Washington.

Ecology also provides expertise on greenhouse gas emissions from vehicles and motor fuels. Emissions from the transportation sector are the largest single source of greenhouse gases in Washington. Ecology supports statewide efforts to evaluate emissions from alternative fuels, such as ethanol and biodiesel, as well as emissions from different types of vehicles, such as electric vehicles, gasoline/electric hybrids, and hydrogen fuel cell vehicles.

Ecology implements California Clean Car Standards for greenhouse gas emissions. Washington joined other states in challenging EPA's and the National Highway Transportation Safety Administration's recent decision to block California from setting vehicle greenhouse gas emission standards more stringent than the federal government's standards.

In 2019, Governor Inslee signed legislation to transition away from using potent greenhouse gases known as hydrofluorocarbons, or HFCs, in products and equipment. Ecology issued an emergency rule in July 2019 and started a permanent rulemaking to implement the new law. The new law requires manufacturers to notify Ecology of product classes using restricted HFCs and phase out the restricted HFCs starting January 1, 2020.

Governor Inslee also signed into law the Clean Energy Transformation Act in 2019, which will transition the state to a 100 percent carbon-free electricity supply by 2045. The Washington Department of Commerce and the Washington Utilities and Transportation Commission are leading this effort, and Ecology has a key role in adopting a rule by January 1, 2021 to establish energy transformation project requirements.

Ecology staff provide technical expertise to the Governor and policymakers on state

policy development, federal regulatory changes, and progress toward the greenhouse gas reduction limits in state law. Under Governor Inslee's direction, in September 2016, Ecology adopted the Clean Air Rule to cap and reduce greenhouse gas emissions from the state's largest polluters. Implementing that rule began in January 2017, but it is currently on hold pending a ruling from the Washington Supreme Court.

Innovative and Effective Control of Commercial and Industrial Emissions

Commercial and industrial air pollution is well controlled in Washington. Ecology issues timely permits for new construction and modifications of air pollution sources and provides ongoing permit management, technical assistance, and compliance inspections. These activities assure that permit conditions are met and air pollutants are controlled appropriately at commercial and industrial facilities within Ecology's jurisdiction.

Ecology continues to explore new and better ways to streamline permitting and inspection processes. Because businesses rarely operate in the same way or use the same materials, Ecology usually tailors permits for each air pollution source. Where businesses are relatively similar (e.g., dry cleaners and auto body shops), Ecology has implemented and continues to develop general orders (categorical permits) for specific source types. This makes permitting easier, quicker, cheaper, and more certain for small businesses. Ecology is also using Lean tools to streamline our Notice of Construction permit application process to make it easier and faster for our customers to apply for permits.

Ecology regularly surveys its permitting and inspection clients. We also seek feedback on our web pages to promote continuous improvement and dialogue with our customers.

Activities, Results, and Performance Measures

Prevent Unhealthy Air and Violations of Air Quality Standards

To ensure federal air quality standards are met and people have healthier air to breathe, Ecology:

- Continuously measures air pollution levels and trends.
- Develops and implements area-specific cleanup plans.
- Designs and implements strategies to prevent violations.
- Cleans up areas that violate standards as quickly as possible.

Expected Results

- The number of areas in Washington measuring air quality levels that are not in compliance with federal air quality standards decrease per year so health problems linked to unsafe air are minimized.
- Ecology attains and maintains clean air, as classified and officially recognized by the Environmental Protection Agency, avoiding federal sanctions.
- Violations of ambient air quality standards are prevented.
- State Implementation Plan strategies are implemented for areas brought back into compliance so that the risk of future violations is reduced.

Performance Measure

- Number of areas in Washington measuring air quality levels that are not in compliance with federal air quality standards.

Measure Air Pollution Levels and Emissions

To make sound air quality management decisions, Ecology needs reliable information on the amount and sources of pollution and how it moves in the air. We do three primary activities to collect data:

- Monitor air quality to assess trends; focus on compliance; and assess control strategies, health effects, and environmental damage.
- Develop emissions inventories to quantify pollution released by air pollution sources.
- Meteorological and dispersion modeling to forecast movement and concentration of air pollutants, carrying capacity of airsheds, interactions of pollutants, and point of maximum impact of pollution.

Expected Results

- The percentage of monitoring data that is valid increases so Ecology has comprehensive, high-quality data to predict air quality levels, impacts, and trends to make informed policy decisions about how to manage air pollution.
- The federally-required monitoring network review and monitoring site modifications are conducted so Ecology meets state and federal air quality obligations.
- Emissions inventories are improved so agency policy-makers have a better understanding of ambient concentrations, sources of priority toxics, and effectiveness of air pollution mitigation strategies.

Performance Measure

- Percentage of monitoring data that is valid.

Climate Change Mitigation and Adaptation

State law sets limits on greenhouse gas emissions and establishes a portfolio of policies to reduce energy use and build a clean energy economy. It also sets requirements to prepare for and respond to climate changes that are already underway and unavoidable. To better understand the volume and sources of greenhouse gas emissions in the state, Ecology conducts a biennial emissions inventory and administers a program for mandatory greenhouse gas reporting.

To help the state achieve its greenhouse gas targets, Ecology will continue to provide technical and analytical support to state decision makers, design and implement emission reduction strategies, and monitor and influence federal initiatives that reduce greenhouse gas emissions.

Ecology helps local governments and state agencies identify and report their greenhouse gas emissions and develop strategies to reduce those emissions.

Ecology makes information about climate available to decision makers in the public and private sectors, as well as the public.

Expected Results

- The amount of greenhouse gas emissions decreases each year so that the statewide emission targets are met (RCW 70.235.020).
- Detailed sector-by-sector greenhouse gas emissions inventories are updated regularly so policy makers and the public have the most recent data.
- State agency and local government emissions are reported and tracked to comply with state and federal laws.
- Hydrofluorocarbon emissions are reduced through implementation of E2SHB 1112 (2019).
- Ecology meets its responsibilities to implement E2SSB 5116 (2019) to transition the state to a 100 percent clean energy future.
- The Governor's Executive Order 18-01 on state efficiency and environmental performance is implemented so the state can reach the goal of eliminating 100 percent of greenhouse emissions from state operations.

Performance Measure

- Tons of greenhouse gas emissions produced statewide.

Reduce Air Pollution from Industrial and Commercial Sources

Ecology issues permits, conducts inspections, and assures compliance with state and federal air quality requirements for new and existing industrial and commercial facilities that emit significant levels of air pollution. The agency also provides permit application assistance, technical assistance, rule interpretation, and permit review.

Expected Results

- The average number of days it takes to process Notice of Construction permit applications decreases so that air pollution from industrial and commercial sources are controlled to protect public health while maintaining economic vitality.
- The regulated community is certain about the need, content, and time frames for permits so that businesses are informed about their role in protecting and enhancing air quality.
- Ecology and local air pollution control agencies retain delegation and local control of federal permit programs so the state can continue to protect public health and the environment.
- Permits are conditioned and approved so all federal and state laws are met so that public health, air quality, and the environment are protected.
- Industrial and commercial sources of air pollution are inspected so permit conditions are met so that ongoing operations do not jeopardize public health.

Performance Measure

- Average number of days it takes to process Notice of Construction permit applications.

Reduce Health and Environmental Threats from Smoke

The two leading sources of smoke during the non-wildfire season (October – May) in Washington communities are outdoor burning and wood burning for residential heat.

To address smoke from outdoor burning, Ecology:

- Issues conditioned permits for agricultural, land clearing, fire training, and other outdoor burning, where required by law.
- Produces daily burn forecasts and responds to and resolves complaints related to smoke.
- Provides technical assistance to manage and prevent outdoor burning impacts.
- Through technical assistance, research, and demonstration projects, promotes development and use of practical alternatives to burning.

To address smoke from residential wood heating, Ecology:

- Coordinates burn curtailments.
- Conducts wood stove change out programs.
- Sets strict emission limits for new stoves.
- Promotes development of clean burning technologies.

Expected Results

- The number of residents exposed to air quality that does not meet healthy levels for fine particles decreases per year so that human health is protected.
- The number of times fine particle pollution is measured above a "healthy" level decreases per year so that air quality levels in all Washington communities is sufficient to protect human health.
- The cumulative number of wood stoves replaced with cleaner burning technologies increases per quarter so that the risk for respiratory illnesses is reduced.

- Public health threats from smoke are managed and minimized.
- Outdoor burning permit and smoke management systems are improved and streamlined.
- Local burning permit programs are audited to ensure they are effective and efficient.
- Practical alternatives and best management practices for burning are developed and used.

Wood stove emissions are reduced through:

- Creating and implementing a proper burning outreach campaign.
- Effective burning curtailments.
- Change-out of uncertified wood stoves.

Performance Measures

- Number of wood stoves replaced with cleaner burning technologies.

Reduce Health and Environmental Threats from Motor Vehicle Emissions

Cars, trucks, construction equipment, locomotives, and marine vessels are responsible for over 60 percent of Washington's air pollution. More than half of Washington's residents have at least one medical condition that is made worse by air pollution. To protect public health and the environment from motor vehicle pollution, Ecology:

- Implements Washington's Clean Car standards.
- Promotes transportation alternatives and cleaner motor vehicles and fuels through voluntary, regulatory, and incentive programs.
- Replaces or retrofits school buses and other diesel engines to reduce exposure to toxic diesel emissions.

Expected Results

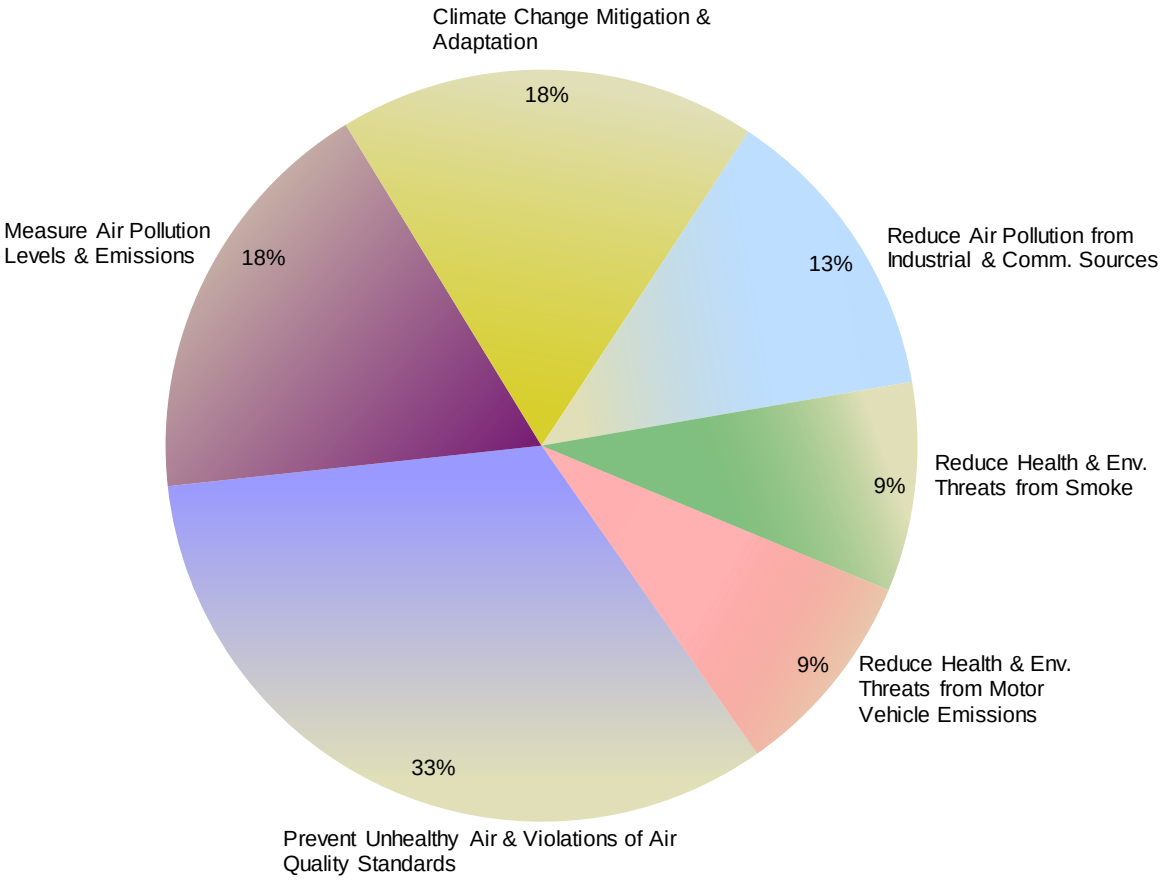
- Air pollution emissions from motor vehicles produced statewide decreases five percent each year so public health and the environment are protected.
- Diesel school buses, public fleet engines, and appropriate private sector engines, in high diesel exhaust exposure areas (near schools, health centers, and around truck stops) are replaced with cleaner options or upgraded with better exhaust controls and idle reduction devices so that the amount of diesel particulate emissions produced statewide decreases per year.
- Additional strategies to reduce engine idling exposure areas are developed and so that exposure to toxic diesel emissions continues to decrease.
- The Emissions Check Program is successfully concluded at the end of 2019 pursuant to RCW 70.120.170(6) - Motor vehicle emission inspections.

Performance Measures

- Tons of motor vehicle emissions produced statewide.
- Tons of diesel soot emissions produced statewide.

Air Quality Program 2019-21 Biennium Budget by Activities

Operating = $43.7 Million | Capital = $54.5 Million | Total $98.2 Million | FTEs = 133.9



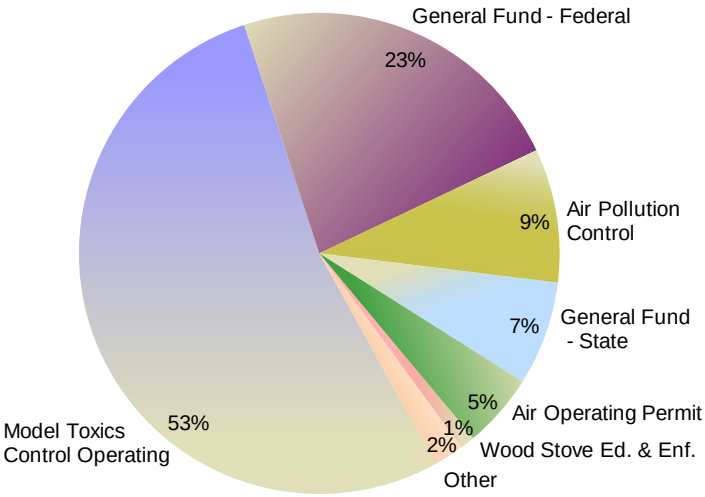
Activities	Amount	%	FTEs
Prevent Unhealthy Air & Violations of Air Quality Standards (A034)	$14,538,000	33%	31.3
Measure Air Pollution Levels & Emissions (A025)	8,088,000	18%	24.7
Climate Change Mitigation & Adaptation (A063)	8,027,000	18%	31.2
Reduce Air Pollution from Industrial and Commercial Sources (A045)	5,480,000	13%	19.8
Reduce Health & Environmental Threats from Smoke (A048)	3,828,000	9%	15.9
Reduce Health & Environmental Threats from Motor Vehicle Emissions (A047)	3,769,000	9%	11.0
Air Quality Operating Budget Total	**$43,730,000**	**100%**	**133.9**

Air Quality Program

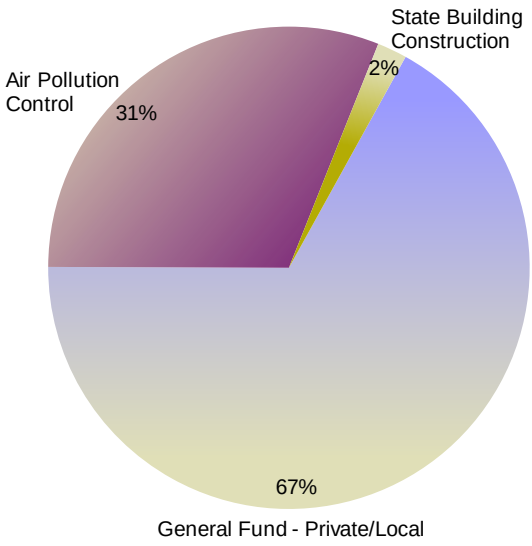
Air Quality Program 2019-21 Biennium Budget by Fund Source

Operating = $43.7 Million | Capital = $54.5 Million | Total $98.2 Million | FTEs = 133.9

Operating

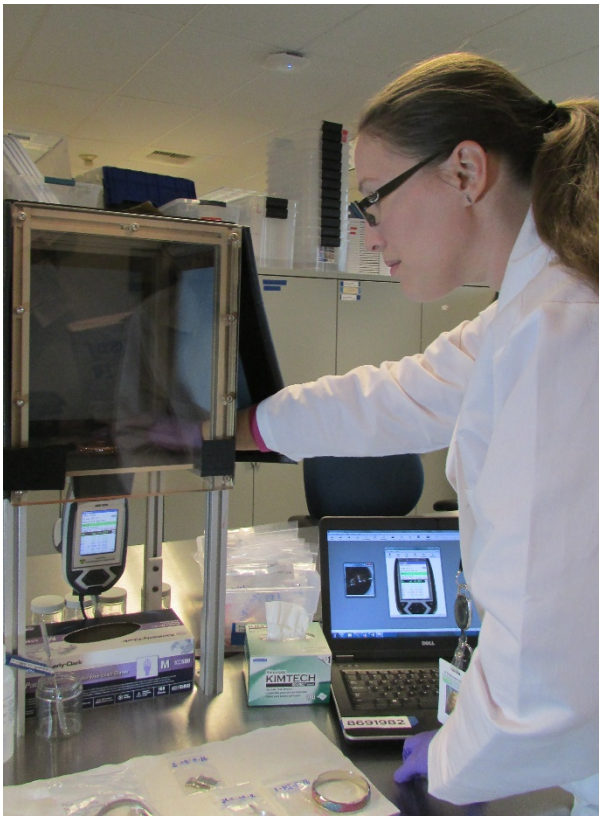


Capital



Operating Fund Sources	Amount	%	Uses
Model Toxics Control Operating (23P)	$23,240,000	53%	Developing strategies to respond to and prevent violations of national ambient air quality standards (nonattainment) in Washington communities. Ambient air monitoring, grants to local air authorities, new source permitting, modeling and meteorology, outdoor and agricultural burning permitting. Vehicle emission testing and vehicle emission reduction efforts, climate change policy analysis and implementation, and greenhouse gas emission inventory. Technical assistance for and enforcement of hydrofluorocarbon restrictions and reporting requirements. Implementation of the Clean Air Rule.
General Fund – Federal (001)	10,106,000	23%	State and local air authority grants for ambient air monitoring, emission inventory, modeling, meteorology, grants to support diesel emissions reduction, and other air quality activities.
Air Pollution Control (216)	3,977,000	9%	Minor source and new source permitting, agricultural burning permitting, agricultural burning alternatives research, greenhouse gas reporting, and rulemaking for Hydrofluorocarbon reporting requirements.
General Fund – State (001)	3,193,000	7%	Implementation of the Clean Energy Act and the Clean Air Rule.
Air Operating Permit (219)	2,151,000	5%	Permitting of major air pollution sources, and related small business technical assistance.
Wood Stove Education & Enforcement (160)	547,000	1%	Enforcement of and education regarding proper wood stove use, grants to local air authorities.

Operating Fund Sources	Amount	%	Uses
Other:			
General Fund – Private/Local (001)	321,000	1%	Private/local agreements associated with ambient air monitoring and telemetry systems.
Pension Funding Stabilization (489)	195,000	1%	Payment of employer retirement contributions for staff funded by GF-State.
Operating Budget Total	**$43,730,000**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
General Fund – Private/Local (001)	$36,748,932	67%	Statewide grants funded through the Volkswagen (VW) federal settlement, which are managed by a private trust. Grants follow the state of Washington VW Beneficiary Mitigation Plan to reduce Nitrogen Oxide emissions in disproportionately impacted communities, achieve public health and other positive air quality outcomes, and promote electric transportation technologies.
Air Pollution Control (216)	16,855,408	31%	Utilize three large one-time penalty payments for the following: (1) legislatively directed grant programs utilizing Volkswagen penalty funds. (2) Clean Diesel Grants to support diesel engine retrofits and replacements, installment of idle reduction technologies, and other diesel emissions reduction projects. (3) Woodsmoke Reduction Grants to support installation of cleaner home-heating alternatives in homes that use uncertified wood stoves as their primary source of heat, and buyback programs for uncertified wood stoves.
State Building Construction (057)	858,000	2%	Reappropriated capital project funding for reducing harmful emissions from wood stove burning and heavy-duty diesel engines.
Capital Budget Total	**$54,462,340**	**100%**	
Air Quality Operating & Capital Budget Total	**$98,192,340**		



Sara Sekerak with the Environmental Assessment Program performs metal screening on children's products using an X-ray fluorescence spectrometer.

Environmental Assessment Program

Program Mission

The mission of the Environmental Assessment Program is to measure, assess, and communicate environmental conditions in Washington State.

Environmental Threats

The focus of the Environmental Assessment Program is to provide credible science and interpretation for Ecology. We conduct monitoring for action. Our monitoring programs, scientific studies, and models are designed to measure and evaluate marine, ground, and freshwater quality; stream flow; aquatic habitat; and contaminants in sediments, marine benthic communities, and fish tissue across the state. We also conduct science around consumer products. We use data to evaluate threats ranging from conventional pollutants, such as bacteria, nutrients, and temperature, to toxic contaminants and invasive aquatic weeds.

Based on our monitoring data, Ecology identifies exceedances of water and sediment quality criteria and assesses the condition of aquatic habitat and biological communities. We have the ability to focus on impacts from individual sources or evaluate the combined impacts from multiple sources. Many of our monitoring programs and scientific studies are done to support clients in other Ecology programs. Some of our projects are conducted in partnership with other agencies and entities.

Authorizing Laws

- *Federal Clean Water Act*
- *RCW 43.21A.230, Certification of Environmental Laboratories*
- *RCW 43.21A.735, Cannabis Science Task Force*
- *Chapter 70.105D RCW, Model Toxics Control Act*
- *RCW 70.119A.080, Public Water Systems – Penalties and Compliance*
- *Chapter 90.48 RCW, Water Pollution Control*
- *Chapter 90.71 RCW, Puget Sound Water Quality Protection*

Constituents/Interested Parties

- *Federal, tribal, and local governments.*
- *State agencies.*
- *Businesses.*
- *Environmental organizations.*
- *General public.*
- *Internal clients.*

Issues

Puget Sound Water Quality

Puget Sound is vulnerable to impacts from climate change, excess nutrient inputs, and ocean acidification. In the 2019 Legislative Session, Ecology received funding to monitor nutrients and ocean acidification parameters at 20 marine stations in Puget Sound and Hood Canal. This will support scientific research and aid in understanding pollution control measures needed to address ocean acidification and nutrient loading. To fully assess nutrient loading to Puget Sound and impacts on the ecosystem, Ecology must also enhance our monitoring of rivers flowing into Puget Sound to include continuous nutrient monitoring. Ecology is seeking funding to strengthen the freshwater nutrient monitoring network.

Toxic Threats

Toxic chemicals are widespread in the environment, but analyses are costly, and Ecology can only afford to sample for a small number of chemical compounds. We sample toxic chemicals in several current monitoring locations, but need more capacity to keep up with requests to screen for new toxic chemicals, such as flame retardants, phthalates, new pesticides, and pharmaceuticals.

Harmful algal blooms (HABs) are large concentrations of algae, which produce toxins that can be harmful to humans, pets, and wildlife. Ecology is conducting a pilot project to develop tools that continuously measure algal pigments during lake HABs. Information from this pilot project will be used in the future to assist Ecology and our partners track real-time conditions of HABs in lakes to protect human health and pets.

With funding received in the 2019 Legislative Session, Ecology has begun work to identify contaminant sources along the migratory pathway of juvenile Chinook Salmon in the Puget Sound Basin. We are using advanced sampling techniques and methods to measure toxic chemicals in water, sediments, and biota. Toxics monitoring will assist in identifying and resolving sources and pathways of chemicals. This informs the source control and remediation actions needed to improve juvenile Chinook survival and help support the Southern Resident Killer Whale population.

Water Quality Cleanup Plans (Total Maximum Daily Load)

Section 303(d) of the Federal Clean Water Act requires the state to develop water quality cleanup plans, also known as Total Maximum Daily Loads (TMDLs), for water bodies that don't meet water quality standards. We conduct field sampling work and perform modeling analyses to develop these plans. Ecology needs more capacity to keep up with the increasing number of waterbodies that require improvement studies.

Stream Gaging

Watersheds across the state are requesting Ecology's help to initiate and maintain stream flow gaging. Watershed managers need stream flow data to support instream flow rule setting and compliance monitoring in response to watershed planning requirements and efforts to restore salmon. Gaging has also been used for in-season fishery management.

Beach Monitoring

Local health agencies use bacteria monitoring data to determine when public beaches must be closed to protect swimmers from unsafe contamination. Using BEACH Act grant funds from the U.S. Environmental Protection Agency (EPA), Ecology works with the Washington Department of Health and local health agencies to monitor bacterial contamination at many marine swimming

beaches in Washington. Federal funding for this long-standing program has been threatened in the past, but was recently extended through 2020. If EPA does end the grant, Ecology will likely submit a budget request for state funding to continue the program after federal funding ends.

Watershed Health

Ecology's Watershed Health Monitoring program is the only statewide program that provides statistically reliable estimates of the overall status, condition, and trends in freshwater quality and aquatic habitat. The monitoring results provide important information for the biennial State of Salmon Report. Our team completed ten years of monitoring throughout the state, resulting in a rich dataset, and we will be reporting on trend analyses. We also collaborate with external partners interested in collecting watershed health data and using our enterprise data management system for their own studies. Ecology continues to expand partnerships and coordination with other interested entities.

Groundwater Monitoring

A systematic statewide groundwater program would allow for greater understanding of pollution sources and transport. It would help to predict how groundwater levels and storage may change due to water withdrawals, surface flows, climate, or precipitation trends. We currently do not have a statewide groundwater level or ambient groundwater quality monitoring program due to a lack of funding. But we have made progress with grant money. Examples include modernizing Ecology's groundwater data management systems, developing database tools specific to groundwater analysis and report capture, publishing standardized groundwater data collection procedures for quality assurance, and installing a small number of wells to monitor climate change effects on groundwater. We continue to look for funding opportunities to help us fill this significant gap.

Urban Bays (Bay-scale) Monitoring

This program provides baseline status and trends for sediment quality in Puget Sound's major urban bays. Sediment chemistry, toxicity, and benthic invertebrate community structure are sampled in one of six urban bays each year on a roughly six-year rotational cycle. We are expanding this program to add environmentally sensitive bays that are outside of urban areas into the rotation. Padilla Bay is of interest to Ecology and will be sampled for the first time in 2020.

Biological Assessment

Most of Ecology's management actions are ultimately intended to benefit the living resources of our rivers, streams, lakes, and marine waters. This is why we directly assess the biological health of our waters. Monitoring benthic invertebrate communities in streams and phytoplankton communities in lakes and marine waters can provide a more direct indication of environmental health than more traditional chemical and physical parameters. Ecology uses two different monitoring strategies that identify both cumulative impacts at larger watershed or ecoregion scales and site-specific impacts.

Effectiveness Monitoring

As best management practices are implemented to help reduce the amount of pollution entering waterbodies and improve stream function, it's important to track the improvement in water quality and stream habitat. Effectiveness monitoring uses a combination of different monitoring types to evaluate whether specific activities have achieved their intended outcomes of restoring water quality and stream function. In addition to monitoring the effectiveness of Ecology's TMDLs, we are currently

partnering with several conservation districts and conservation partners on multiple effectiveness monitoring studies across the state.

Cannabis Laboratory Accreditation

The cannabis industry is in need of lab quality standards to improve the accuracy and consistency of product information, both of which will help inform consumer decisions. In 2019, the Legislature passed HB 2052, establishing a Cannabis Science Task Force and transferring the authority for cannabis lab accreditation from the Liquor and Cannabis Board to Ecology in 2024. The Task Force, led by Ecology, is a partnership between several state agencies and cannabis industry scientists to recommend lab quality standards.

Innovative Tools for Data Collection and Science Communication

Eyes Over Puget Sound (EOPS) is a popular, image-rich, story-driven surface condition report with a half a million downloads per year. EOPS informs the community about current conditions in Puget Sound and Washington's coastal estuaries and serves as an access point for a wide range of long-term marine monitoring information, including ferry data.

Activities, Results, and Performance Measures

Conduct Environmental Studies for Pollution Source Identification and Control

Ecology conducts pollution identification studies to address known or suspected problems at specific sites and across regional areas. These studies support our efforts under the Federal Clean Water Act, as well as the state Water Pollution Control and Model Toxics Control Acts. Studies range from simple water quality sampling for bacteria or dissolved oxygen to very complex projects assessing the amount of nutrients in large watersheds. Many projects support development of water quality improvement plans or Total Maximum Daily Load (TMDLs) to assess how much of a pollutant a waterbody can absorb without exceeding water quality standards.

Expected Results

Polluted waters are studied to identify pollution sources or cleanup success so resource managers have credible scientific information to make decisions to protect the environment and public health. All study reports are peer reviewed, completed on schedule, and published to the Internet so that the information is shared with the public and can be used to make regulatory and policy development decisions.

Performance Measure

- Number of polluted waters assessed to identify pollution sources or cleanup success.

Monitor the Quality of State Waters and Measure Stream Flows Statewide

Ecology operates a statewide environmental monitoring network to:

- Assess the status of major waterbodies.
- Identify threatened or impaired waters.
- Evaluate changes and trends in water quality over time.

This network includes sampling stations in rivers, streams, and marine waters (Puget Sound and the major coastal estuaries). Ecology measures statewide biological, chemical, and habitat conditions to provide information on the health of watersheds on a regional scale. Ecology also measures stream flows in salmon-critical basins and key watersheds statewide.

Expected Results

- Trends, conditions, and changes in water quality of major freshwater rivers, Puget Sound, and the largest coastal estuaries

are tracked so Ecology staff and the public are alerted to emerging water quality problems.
- Credible environmental monitoring data are produced so Ecology, other agencies and the public can make better informed decisions.

Performance Measures

- Percentage of monitored stream flows below critical flow levels.
- Statewide river and stream water quality index score.
- Percentage of individual sample data collected annually that are reliable and valid for use by other programs, agencies, and the public.
- Percentage of continuous monitoring data collected annually that are reliable and valid for use by other programs, agencies, and the public.

Measure Contaminants in the Environment by Performing Laboratory Analyses

The Manchester Environmental Laboratory is a full service environmental laboratory. The lab provides technical, analytical, and sampling support for chemistry and microbiology for multiple Ecology programs and supports work conducted under the Federal Clean Water Act, as well as the state Water Pollution Control, Puget Sound Water Quality Protection, Children's Safe Products, and Model Toxics Control Acts.

Expected Results

The Manchester Environmental Laboratory provides accurate and defensible analytical support so that clients can make environmental and enforcement decisions.

Performance Measures

- Percentage of acceptable proficiency testing analyses completed by Ecology's Manchester Environmental Laboratory.
- Number of chemical analyses completed for clients by Ecology's Manchester Environmental Laboratory.

Ensure Environmental Laboratories Provide Quality Data

Ecology accredits environmental laboratories that submit data to the agency and to the Department of Health. The accreditation program covers analyses in all typical environmental matrices (air, water, soil, sediment, tissue) and drinking water. Accreditation ensures environmental laboratories have the demonstrated capability to provide accurate and defensible data. Ecology's laboratory accreditation program is the primary method of performance monitoring for over 400 laboratories in the accreditation program. Ecology will start accrediting cannabis laboratories in 2024. To prepare for this role, Ecology is leading the Cannabis Science Task Force to recommend lab quality standards for cannabis laboratories.

Expected Results

Laboratories accredited by Ecology maintain successful, quality programs so that accurate and defensible analytical data are available for environmental and public health decisions.

Performance Measure

- Percentage of acceptable proficiency testing analyses completed by accredited laboratories.

Improve the Quality of Data Used for Environmental Decision Making

To ensure the reliability and integrity of data Ecology generates, agency staff:
- Provide guidance and training on developing quality assurance project plans.
- Review project proposals.
- Consult on sampling design requirements and interpretation of results.

This quality assurance work is required by the Environmental Protection Agency for entities (including Ecology) that receive funding for work involving environmental data. In addition, Ecology scientists, modelers, statisticians, chemists, and other specialists:

- Interpret technical data.
- Review grantee monitoring plans.
- Supply information for policy decisions to support agency mandates.

Expected Results

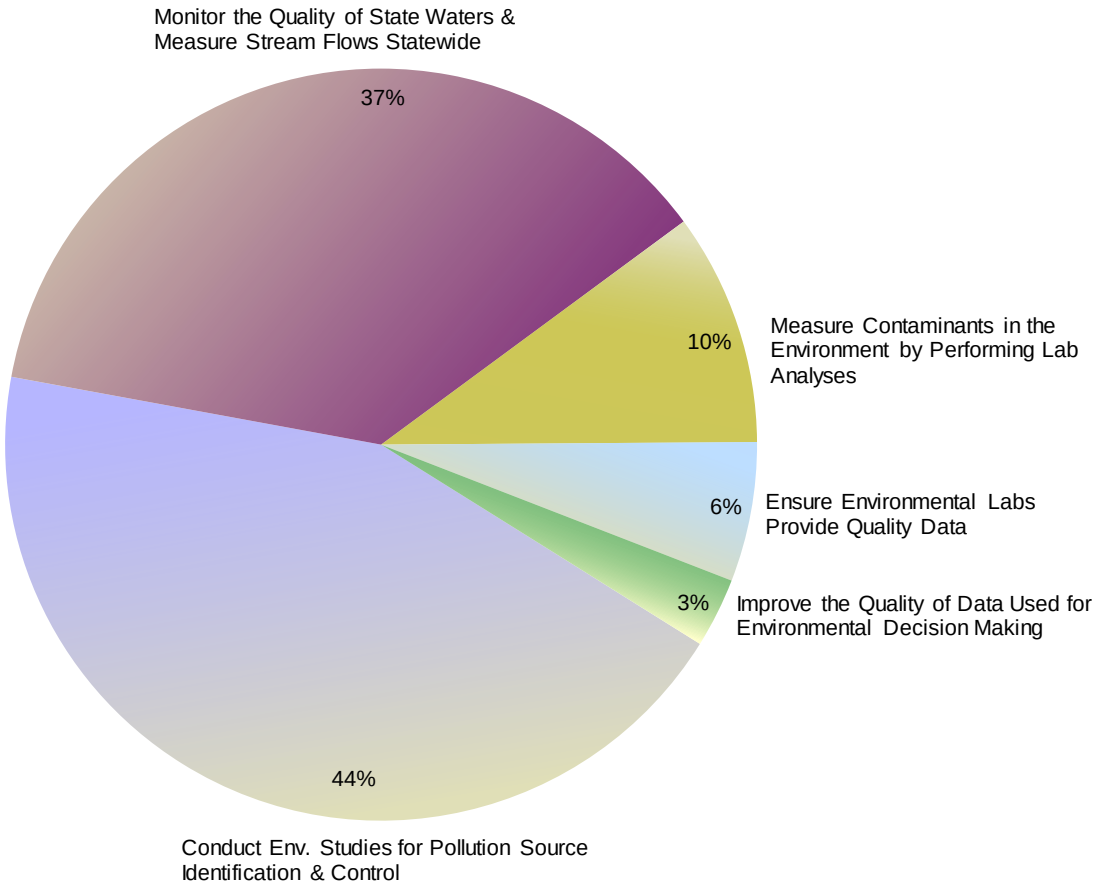
- Standard operating procedures are up to date and approved for quality assurance so that environmental policy and agency decisions are based on accurate, reliable, and timely data.
- Quality assurance project plans are completed for all scientific studies before sampling begins so that the quality and credibility of data generated for decision making is documented.
- Entities receiving funding for work involving environmental data can continue to receive EPA funds.

Performance Measure

- Percentage of field monitoring standard operating procedures that are up to date and approved for quality assurance.

Environmental Assessment Program 2019-21 Biennium Budget by Activities

Operating = $42.3 Million | No Capital | Total $42.3 Million | FTEs = 164.3

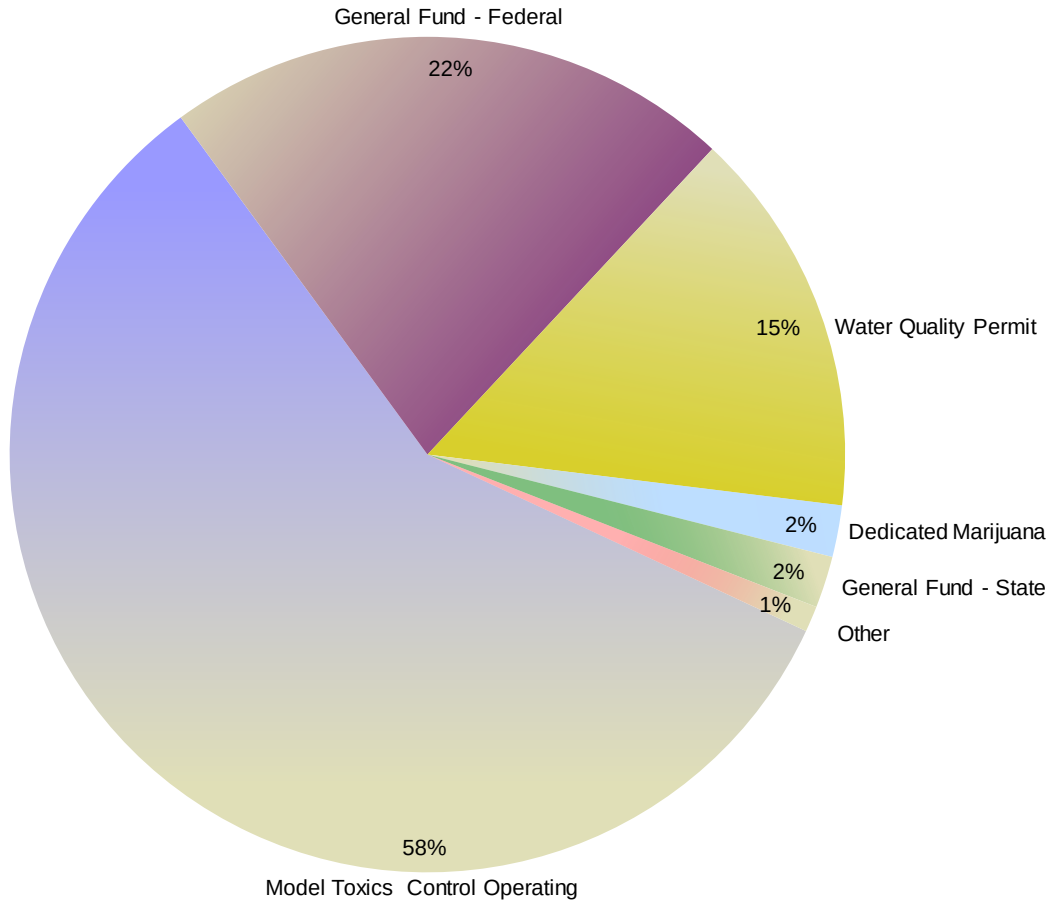


Activities	Amount	%	FTEs
Conduct Environmental Studies for Pollution Source Identification & Control (A007)	$18,727,000	44%	65.1
Monitor the Quality of State Waters & Measure Stream Flows Statewide (A027)	15,504,000	37%	55.1
Measure Contaminants in the Environment by Performing Laboratory Analyses (A026)	4,256,000	10%	30.6
Ensure Environmental Laboratories Provide Quality Data (A012)	2,550,000	6%	8.9
Improve the Quality of Data Used for Environmental Decision Making (A020)	1,230,000	3%	4.6
Environmental Assessment Operating Budget Total	**$42,267,000**	**100%**	**164.3**

Environmental Assessment Program

Environmental Assessment Program 2019-21 Biennium Budget by Fund Source

Operating = $42.3 Million | No Capital | Total $42.3 Million | FTEs = 164.3



Operating Fund Sources	Amount	%	Uses
Model Toxics Control Operating (23P)	$24,762,000	58%	Water quality monitoring, toxics monitoring, marine sediment monitoring, groundwater investigations, water cleanup studies.
General Fund – Federal (001)	9,184,000	22%	Water quality monitoring, marine sediment monitoring, groundwater investigations, water cleanup studies, effectiveness monitoring.
Water Quality Permit (176)	6,205,000	15%	Water cleanup studies, groundwater investigations, technical assistance, compliance monitoring.
Dedicated Marijuana (315)	851,000	2%	Cannabis Science Task Force.
General Fund – State (001)	652,000	2%	Marine water quality monitoring, ocean acidification technical coordination.
Other:			
General Fund – Private/Local (001)	332,000	<1%	Water quality monitoring, marine sediment monitoring, laboratory analytical work.
Freshwater Aquatic Weeds (222)	270,000	<1%	Technical assistance, monitoring.

Operating Fund Sources	Amount	%	Uses
Hazardous Waste Assistance (207)	11,000	<1%	Toxics monitoring.
Operating Budget Total	**$42,267,000**	**100%**	
Environmental Assessment Operating & Capital Budget Total	**$42,267,000**		

Mindy Collins of the Hazardous Waste Program samples storage tank contents at a business in Ferndale, WA.

Hazardous Waste & Toxics Reduction Program

Program Mission

The mission of the Hazardous Waste and Toxics Reduction (HWTR) Program is to protect Washington's residents and environment by reducing toxic chemicals, safely managing dangerous waste, preventing new contaminated sites, and cleaning up contamination.

Over the longer term, we work with businesses and governments to achieve a system where waste is viewed as inefficient, and most wastes and unnecessary use of toxic substances have been eliminated.

Environmental Threats

Reducing toxic threats is one of Ecology's priority initiatives. There are risks in using and storing—not just disposing of—hazardous chemicals. Some chemicals (such as cleaning products or yard chemicals) can pose an immediate health threat during use. Others pose a risk as products break down or when they are disposed. Some chemicals build up in our bodies and the environment gradually—for example, persistent, bio-accumulative toxics (PBTs) and heavy metals.

When hazardous substances are no longer usable, they become hazardous wastes—or "dangerous wastes," as they are known in Washington[7]. Washington's regulation of dangerous waste provides environmental protection not included in the federal hazardous waste rules. Our more protective standards help reduce spills, protect workers, and safeguard businesses that rely on a clean environment for their livelihood. They also create recycling opportunities for Washington businesses. For more details, see *Focus on State Dangerous Waste Regulations Protect Human Health and the Environment* at https://fortress.wa.gov/ecy/publications/SummaryPages/1304004.html.

When dangerous wastes are mismanaged, they get into water and soil where they can harm human health and the environment or cause costly cleanup sites. Washington has had 7,100 toxic sites cleaned up or reported cleaned up in the state, but approximately 200-300 new sites are reported each year. Every year, there are more new sites being reported than sites that have been cleaned up. The costs of cleaning up toxic sites range from tens of thousands to millions

[7] Washington law uses the term *dangerous waste.* Federal law uses the term *hazardous waste.* While these terms are often used interchangeably, Washington's definition includes some substances that are not included in the federal definition.

of dollars per site. When responsible parties aren't able to pay for cleanups, the burden often falls on taxpayers.

Around 1,000 businesses and facilities statewide produce most of the dangerous waste—over 100 million pounds of recurrent dangerous waste each year. Recurrent wastes are planned, predictable by-products of industrial processes.

To ensure safe dangerous waste management at these sites, Ecology conducts inspections and provides compliance and pollution prevention technical assistance. We also work with local governments to ensure dangerous waste produced in Washington by thousands of smaller businesses—known as Small Quantity Generators—is handled safely. Safely managing dangerous waste is essential to protect human health and the environment. But, avoiding the use of hazardous chemicals in the first place is the smartest, cheapest, and healthiest approach.

The risk from hazardous substances is not only from leaking drums at an industrial site. Each of us affects the environment, our own health, and the health of others when we buy and use products that contain toxic chemicals. We find hazardous chemicals in our air, water, soil, and in our bodies—in part because they are ingredients found in the products we use in our homes, yards, and offices. Whether the risk is from toxics in products or dangerous waste from industry, our focus is on helping the public and businesses make informed choices about the use of hazardous substances and their ultimate safe disposal.

Authorizing Laws

- *Federal Emergency Planning and Community Right-to-Know Act (SARA Title III)*
- *Federal Pollution Prevention Act*
- *Federal Resource Conservation and Recovery Act*
- *Federal Toxic Substances Control Act*
- *Chapter 15.54 RCW, Fertilizer Regulation Act (Ecology's oversight authority over waste-derived fertilizers)*
- *Chapter 49.70 RCW, State Worker and Community Right-to-Know Act*
- *Chapter 70.102 RCW, Hazardous Substance Information Act*
- *Chapter 70.105 RCW, Hazardous Waste Management Act*
- *Chapter 70.105D RCW, State Hazardous Waste Clean Up-Model Toxics Control Act*
- *Chapter 70.240 RCW, Children's Safe Products Act*
- *Chapter 70.270 RCW, Replacement of Lead Wheel Weights*
- *Chapter 70.280 RCW, Bisphenol A – Restrictions on Sale*
- *Chapter 70.285 RCW, Brake Friction Material*
- *Chapter 70.365 RCW, Toxic Pollution*
- *Chapter 70.295 RCW, Storm Water Pollution-Coal Tar*
- *Chapter 70.76 RCW, PBDE Flame Retardants*
- *Chapter 70.95 RCW, Solid Waste Management-Reduction and Recycling Act*
- *Chapter 70.95C RCW, Waste Reduction*
- *Chapter 70.95E RCW, Hazardous Waste Fees*
- *Chapter 70.95G RCW, Packages Containing Metals and Toxic Chemicals*
- *Chapter 70.95M RCW, Mercury*

Constituents/Interested Parties

- *General public.*
- *State and local governments and other agencies.*
- *Business groups and associations.*
- *Regulated businesses and agencies.*
- *Tribes.*
- *Environmental groups.*
- *Federal agencies, such as the U.S. Environmental Protection Agency (EPA).*

Issues

The State Solid and Hazardous Waste Plan: Moving Washington Beyond Waste and Toxics

The state of Washington is required by law to have a Solid and Hazardous Waste Plan and update it regularly. The plan's purpose is to guide waste and toxics reduction and safe waste management in the state.

The state plan focuses on sustainable materials management. This means looking at the full life cycle of materials from the design and manufacturing phase, through the use phase, to the end-of-life phase, when the material is either disposed or recycled. This is important because the adverse environmental impacts of extraction, production, and use can be far greater than those associated with disposal when a material becomes a waste. Looking at production and use phases can help identify more sustainable ways to design products that use less energy, water, and toxics, and create less waste and pollution.

Ecology is now working on implementing the 2020 plan. Plan goals include preventing and reducing waste and toxics, addressing issues of concern, and continuing to improve current waste management practices. Areas of focus for the HWTR Program include promoting safer chemicals for businesses and pollution prevention planners, working toward environmentally preferred purchasing and local partnerships to work on toxic source control, and minimizing use of the most toxic chemicals.

Safer Products for Washington

The 2019 Legislature passed SB 5135. This law authorizes Ecology, in consultation with the Washington Department of Health, to regulate classes of chemicals in consumer products. The law establishes a process for Ecology and Health to designate priority chemicals, identify products that contain these chemicals, determine regulatory actions (notice requirements or chemical restrictions), and adopt rules to implement regulatory actions as early as 2023. Chemical restrictions require safer alternatives be feasible and available. Ecology will continue to work this effort into the State Solid Waste and Hazardous Waste Plan and other toxics prevention and reduction efforts.

Compliance

While Ecology works to prevent tomorrow's toxic threats, we strive to manage today's dangerous waste safely.

Routine inspections are a critical regulatory line of defense between the millions of pounds of dangerous waste produced in Washington and environmental contamination. Mismanaging dangerous waste:

- Allows harmful chemicals to contaminate our water, soil, and air.
- Pollutes stormwater runoff.
- Creates expensive cleanups.

Formal dangerous waste inspections at larger, regulated businesses and facilities are critical to environmental health. These businesses handle the bulk of the state's dangerous waste. Inspections can be unannounced or scheduled within a several-month period.

During the 2017-19 Biennium, Ecology's certified environmental inspectors staff performed over 534 compliance inspections at facilities that generate or manage dangerous waste. These inspections resolved over 432 serious environmental threats. Such threats have the potential to pollute our environment through leaks or spills from unsafe storage methods or containers and improper disposal.

The inspections also revealed how well facilities complied with state and federal regulations. We found significant environmental violations at 60.6 percent of regulated businesses we inspected during the 2017-19 Biennium, which is up from 49 percent in the previous biennium. This

increase could be due in part to staff retention issues that were stabilized during the 2017-2019 Biennium.

Local Source Control Program

Smaller businesses that generate hazardous/dangerous wastes are less likely to get the attention of regulatory agencies for waste, air, or stormwater issues. But many smaller businesses generate these wastes that, if stored, managed, or disposed of incorrectly, can cause pollution to our state's land, air, and water.

The Local Source Control Partnership began in 2008, when Ecology developed interagency agreements with local government agencies in the Puget Sound and Spokane River watersheds to conduct technical assistance to smaller businesses.

In 2015, additional funding for the Columbia River watershed allowed Ecology to add new partners in Clark County. During the 2017-19 and 2019-21 biennia, Ecology has a total of 21 contracts with cities, counties, and local health authorities to help businesses ensure their wastes don't contaminate soil, air, wastewater, or stormwater. This is done by implementing best management practices and staying in compliance with environmental laws and regulations.

An important aspect of the technical assistance visit is to help the business with spill prevention and cleanup preparedness. Since the beginning of the partnership, our partners have conducted over 36,000 of these business visits. Ecology estimates that for the 2019-21 Biennium, our contracted partners will provide over 6,500 technical assistance visits to small businesses.

New for this biennium is the addition of a Product Replacement Program that helps businesses with the costs associated with switching to safer products and technology. The Partnership's first effort under this program is to help dry cleaners who use perchloroethylene (PERC) to switch to a safer cleaning technology by reimbursing some of the costs associated with purchasing new, safer equipment.

Updated Rules

As EPA updates its regulations, the state is required to amend the Dangerous Waste Regulations. In the 2019-21 Biennium, Ecology will incorporate new federal hazardous waste rules into the Dangerous Waste Regulations. This rulemaking is needed to keep our rules current with federal law and maintain state authorization. We adopt some rules to stay current with the federal program. Others are optional and serve to streamline or clarify existing rules, making it easier for generators to stay in compliance.

Ecology will propose to adopt EPA's hazardous waste pharmaceutical rule and amendments to the P075 listing for nicotine, safe management of recalled air bags, and user fees for the e-manifest system. A number of corrections and clarifications will also be proposed.

Pollution Prevention Planning

Some businesses are required to submit a plan to reduce hazardous substance use and dangerous waste. A Pollution Prevention (P2) Plan is required for businesses or facilities that generate more than 2,640 pounds of dangerous waste each year or that reports toxic releases under Section 313 of the Emergency Planning and Community Right to Know Act.

During the 2017-19 Biennium, Ecology staff focused on giving these and other business facilities more assistance on safer alternatives to chemicals that they use and will continue to do so through the current biennium. Less toxic chemicals used by these facilities will result in increased worker safety and less risk to the environment.

Reducing Risk through Technical Assistance to Businesses

Face-to-face technical assistance visits result in voluntary compliance rates of 90 percent or higher. Hundreds of businesses in Washington have saved money and increased their competitive advantage by reducing their use of hazardous substances, and this ensures better compliance with state dangerous waste laws.

Two items are key in breaking the cycle of ongoing cleanup expenses; use fewer toxic chemicals, and safely manage those hazardous substances for which there is no substitute available. Facilities that produce more dangerous wastes tend to run a higher risk of mismanaging that waste. Mismanaged wastes can contaminate the environment and may eventually require cleanup.

During the 2017-2019 Biennium, HWTR staff conducted over 650 business assistance visits. This is more visits than the previous biennium. We provided business-specific advice on how to:

- Reduce use of hazardous substances.
- Avoid generating waste.
- Manage dangerous waste safely.

We focused on improving operations and maintenance in industries with the highest rates of waste generation and non-compliance. We showed their staff how to:

- Achieve energy savings.
- Conserve water.
- Prevent stormwater contamination.
- Use fewer hazardous substances.

Safer Chemicals

The public's concern about toxic chemicals in everyday consumer products has increased during the last several years. Consumers are more aware of potential health issues associated with toxic chemicals, including cancer, hormone disruption, and harm to normal development. The public wants to know if these types of chemicals are in the products they use.

More and more, studies show that commonly used household products can be a majority source of exposure to chemicals of concern, to both humans and the environment. For example, polychlorinated biphenyl (PCB) contamination in the Spokane River is not from just a few industrial dischargers, but also from using consumer products like motor oil, hydraulic fluid, soaps, inks, and caulk. All of these products contain legal levels of PCBs.

The effects of toxic chemical exposure to human health, the environment, and the economy are enormous—and largely preventable—as state, national, and international efforts transition to safer chemistry. A number of Ecology projects supporting safer chemicals will continue in 2019-21, including:

- Working with the Toxics in Packaging Clearinghouse, a consortium of states working to keep regulated toxic metals out of consumer products packaging.
- Increasing distribution and use of chemical hazard assessments for identifying highest-risk chemicals and safer chemical alternatives.
- Working with a multi-state effort to monitor EPA's implementation of the updated federal chemical management law (the Toxic Substances Control Act).
- Certifying manufacturer compliance with the Better Brakes law and assessing availability of alternative auto brake friction materials that eliminate or reduce copper, asbestiform fibers, cadmium, lead, and mercury.
- Assuring compliance with the Children's Safe Products Act and other laws that limit toxics in consumer products.
- Developing and implementing Chemical Action Plans to reduce uses and releases of persistent, bioaccumulative and toxic chemicals.
- Using the roadmap for mainstreaming green chemistry as guidance to advance green chemistry in Washington State,

including working with Northwest Green Chemistry and other organizations.
- Researching potential safer alternatives to PFAS in food packaging, as well as alternatives to priority products identified through Safer Products for Washington.
- Participating in collaborations that improve transparency in products.
- Working with the State Efficiency and Environmental Performance (SEEP) agencies to identify and implement efforts to reduce toxic chemicals in products and materials purchased through the state.

Permitting and Corrective Action

Ecology issues permits to specifically designed dangerous waste treatment, storage, and disposal (TSD) facilities. These commercial TSDs handle millions of pounds of dangerous waste generated by their own and other businesses or facilities in Washington. Ecology also oversees closure and necessary cleanup at operating and already closed facilities. TSD facilities are mostly located near Puget Sound and are often contaminated and require cleanup. This cleanup is known as corrective action.

Corrective actions are going on at 41 facilities that are designated by EPA as priority sites. Work is progressing at all sites, and we expect to have many of these 41 cleanups finished or in maintenance status by 2030. As sites are cleaned up, those that remain are the most complex and contaminated. The full cleanup process at an average site takes 10-30 years to complete.

Cleanups are expensive, but we can recover most costs from the property owners. Once clean, these properties provide opportunities for habitat restoration, economic development, and public recreation.

Access to Hazardous Substance and Waste Information

Ecology's data systems gather, maintain, and report a range of information about hazardous substances and dangerous waste. Data sets include hazardous substances stored, toxics in products to determine compliance with existing laws, toxics released to the environment, dangerous waste generated and managed, and pollution prevention measures taken by businesses. The information on toxics found in products includes the Children's Safe Products manufacturer reporting database and Ecology's product testing work database. We compile and make the data available to individuals, businesses, emergency responders, and local government decision makers. Our website, printed materials, telephone information line, and program newsletter, *Shoptalk* (https://www.ecy.wa.gov/Regulations-Permits/Guidance-technical-assistance/Dangerous-waste-guidance/Shoptalk), provide the most current available hazardous substance and dangerous waste information. We have over 10,000 subscribers to Shoptalk. These resources help businesses and the public make informed decisions on using and safely managing hazardous substances to protect human health and the environment.

Emergency Planning and Community Right-to-Know

Ecology supports multiple sections of the federal Emergency Planning and Community Right-to-Know Act (EPCRA). The work is coordinated with EPA, other state agencies, local emergency planning committees, and tribes. Ecology manages two basic services through this law and related state rules:
- Tracking bulk storage of hazardous chemicals to facilitate emergency planning and response.

- Tracking and reporting on the release of toxic chemicals into communities across the state.

In 1984, Congress used EPCRA to mandate that all states support the Act's basic community right-to-know needs. There is no federal funding for this work. The core state agencies involved are the Department of the Military's Emergency Management Division, the Washington State Patrol, Ecology, and member agencies of the Washington State Emergency Response Commission.

To comply with the mandate, thousands of businesses annually report chemical inventories to Ecology's HWTR Program. Also, hundreds of manufacturers annually report their permitted and other chemical releases into the air, ground, water, sewers, and what is shipped off-site. Ecology collects, updates, manages, uses, and distributes this data throughout the year.

Activities, Results, and Performance Measures

Increase Compliance and Act on Environmental Threats from Hazardous Waste

Ecology annually conducts formal compliance enforcement inspections at large and medium quantity generators and hazardous waste management facilities to ensure compliance with state and federal regulations. A credible, formal enforcement capability is essential to preserving the effectiveness of technical assistance and informal enforcement efforts. While staff undertake formal enforcement infrequently, repeated refusal or inability of a facility to correct violations and comply with the regulations will escalate to formal enforcement actions. When possible, a streamlined enforcement and settlement approach is used. This frees up inspectors to do more inspections instead of spending excess time with legal proceedings. The state also periodically amends the dangerous waste regulations to keep our rules current with the federal program and maintain state authorization.

Expected Results

Large- and medium-quantity generators and facilities that treat, store, or dispose of dangerous wastes are in compliance with state and federal regulations designed to protect human health and the environment. We accomplish this through:

- Conducting over 400 compliance inspections annually.
- Leaning our compliance inspection process in an effort to add capacity for additional inspections.
- Responding to 100 percent of dangerous waste related complaints (approximately 120-180 complaints per year).
- Using streamlined enforcement and settlement approaches as opportunities arise.
- Issuing timely enforcement actions resulting in a deterrent to businesses and changed behavior.
- Focusing on reducing the number of significant environmental threats found during inspections.

Performance Measures

- Number of significant toxics-related environmental threats resolved.
- Percentage chance of finding a significant environmental threat during a compliance inspection.

Reduce Toxic Chemicals in Products and Promote Safer Alternatives

Ecology is implementing a long-term strategy designed to reduce persistent, bioaccumulative toxics in Washington's environment through:

- Engaging key organizations and interest groups, especially the Department of Health, in reviewing science and developing action plans to reduce presence of these toxics in the environment.

- Providing public education and information on reducing toxics in the environment.

Toxic chemicals in some types of consumer products pollute the environment and have the potential to harm humans and wildlife. Reducing toxic chemicals in consumer and other products over time will lower the risks to people and the environment. Ecology uses several strategies to achieve this goal, including:

- Identifying chemicals of concern in consumer products and promoting safer alternatives to identified chemicals.
- Promoting environmentally preferred purchasing.
- Sampling and enforcing statutory reporting requirements and limits in specific products.

Expected Results

- Strategies are developed and implemented to reduce and eliminate PBTs.
- Consumers are aware of and use safer alternatives.
- Risks to people, wildlife, and the environment from PBTs and other toxic substances are minimized.

Performance Measure

- Pounds of toxic substances used by Washington businesses and facilities required to submit pollution prevention plans (in millions of pounds).
- Number of children tested for lead in blood.
- Percent of tested-children, less than seven years old, with elevated lead blood levels.

Increase Safe Hazardous Waste Management

Ecology provides education and technical assistance to thousands of businesses on safe hazardous waste management. Safe management of hazardous waste protects the public and the environment and enables the state to avoid significant cleanup costs. Although formal enforcement work is essential to maintaining compliance with hazardous waste regulations, training and technical assistance visits can also help bring facilities into regulatory compliance using fewer resources. Even small amounts of mismanaged toxic chemicals can create contaminated sites and pollute stormwater.

To address environmental threats from small businesses, Ecology also oversees performance contracts with nine Puget Sound counties (in addition to Spokane County). These contracts provide for Local Source Control Specialists to conduct technical assistance visits to small businesses.

Expected Results

Dangerous waste is safely managed, the public is protected, and businesses comply with state dangerous waste rules. We accomplish this through:

- Conducting up to 200 compliance-related technical assistance visits to businesses each year.
- Providing six web-based dangerous waste workshop videos and training modules to help businesses properly manage dangerous waste and fill out their annual reports.
- Conducting at least four dangerous waste workshops across the state.

Performance Measures

- Number of toxics-related technical assistance visits.
- Number of Ecology-funded small business technical assistance visits conducted by local government.

Prevent Hazardous Waste Pollution through Permitting, Closure, and Corrective Action

Facilities that treat, store, or dispose of large volumes of dangerous waste must obtain a permit to ensure their design, construction, maintenance, and operating procedures protect public health and the environment.

Washington currently has 14 active facilities that are either in "interim status" or have a final permit. Because these facilities handle such a large volume of dangerous waste, they are inspected annually. They are required to have closure plans to effectively deal with the end of their waste management activities. Ecology is currently working on 20 high-priority corrective action cleanup sites. Ecology also ensures that proper financial assurance requirements are in place at all used-oil processors and recyclers and facilities that treat, store, or dispose of dangerous wastes.

Expected Results

Facilities that treat, store, or dispose of dangerous wastes are constructed and operated to prevent soil, water, or air contamination. This is accomplished through:

- Striving to meet EPA's cleanup goals for protecting human health, controlling migration of contaminated groundwater, and sites reaching "remedy construction complete."
- Issuing high-priority permit modifications to address health and safety issues or improve environmental outcomes.

Performance Measure

- Percentage progress toward completed corrective action at 39 priority facilities.

Reduce the Generation of Hazardous Waste and the Use of Toxic Substances through Technical Assistance

The state Waste Reduction Act calls for the reduction of hazardous waste generation and the use of toxic substances and requires certain businesses to prepare plans for voluntary reduction. Staff provide on-site assistance through innovative programs designed to reduce the use of source and waste generation. In addition, the agency focuses on improvements in industries that have the highest rate of waste generation and non-compliance to help them achieve energy savings, water conservation, and reduced hazardous waste production. Reducing the use of toxic chemicals in commerce reduces the generation of hazardous waste, minimizes disposal costs, reduces the need for cleanup, minimizes public exposure, and saves businesses money.

Expected Results

Hazardous waste generation is reduced by two percent each year (approximately five million pounds), resulting in cleanup and disposal cost savings for businesses, reduced public exposure, and fewer cleanups. This is accomplished through:

- Completing nearly 500 toxics-related technical assistance visits to businesses each year.
- Reviewing the majority of the pollution prevention (P2) plans (approximately 450) submitted by businesses and facilities each year.
- Tracking the number of P2 opportunities and dollars saved by businesses implementing their P2 plans.
- Conducting two or four comprehensive engineering or Lean-based technical assistance projects with businesses each year.
- Promoting safer alternatives to the use of toxics by businesses in Washington State.

Performance Measures

- Pounds of hazardous waste generated (in millions).
- Cumulative pounds of mercury collected and/or captured while implementing Ecology's mercury chemical action plan.

Improve Community Access to Hazardous Substance and Waste Information

Ecology provides the public and local governments with information about the type, location, and source of hazardous substances in local communities. Ecology uses automated data systems to:

- Track compliance and technical assistance visits.
- Measure pollution prevention and compliance progress.
- Track amounts of dangerous waste generated each year, as well as its transport, treatment, and/or disposal.
- Identify toxic chemicals released and stored by businesses.
- Track information on facilities that prepare pollution prevention plans.
- Prepare informational publications, such as Shoptalk, a newsletter for hazardous waste generators.

According to federal and state community right-to-know laws, Ecology also responds to public inquiries about toxic chemicals and provides a website for this purpose.

Expected Results

Dangerous waste and chemical data (type, location, amount, etc.) is available to emergency responders and local governments so they can plan and prepare for chemical hazards in their communities. This is accomplished through:

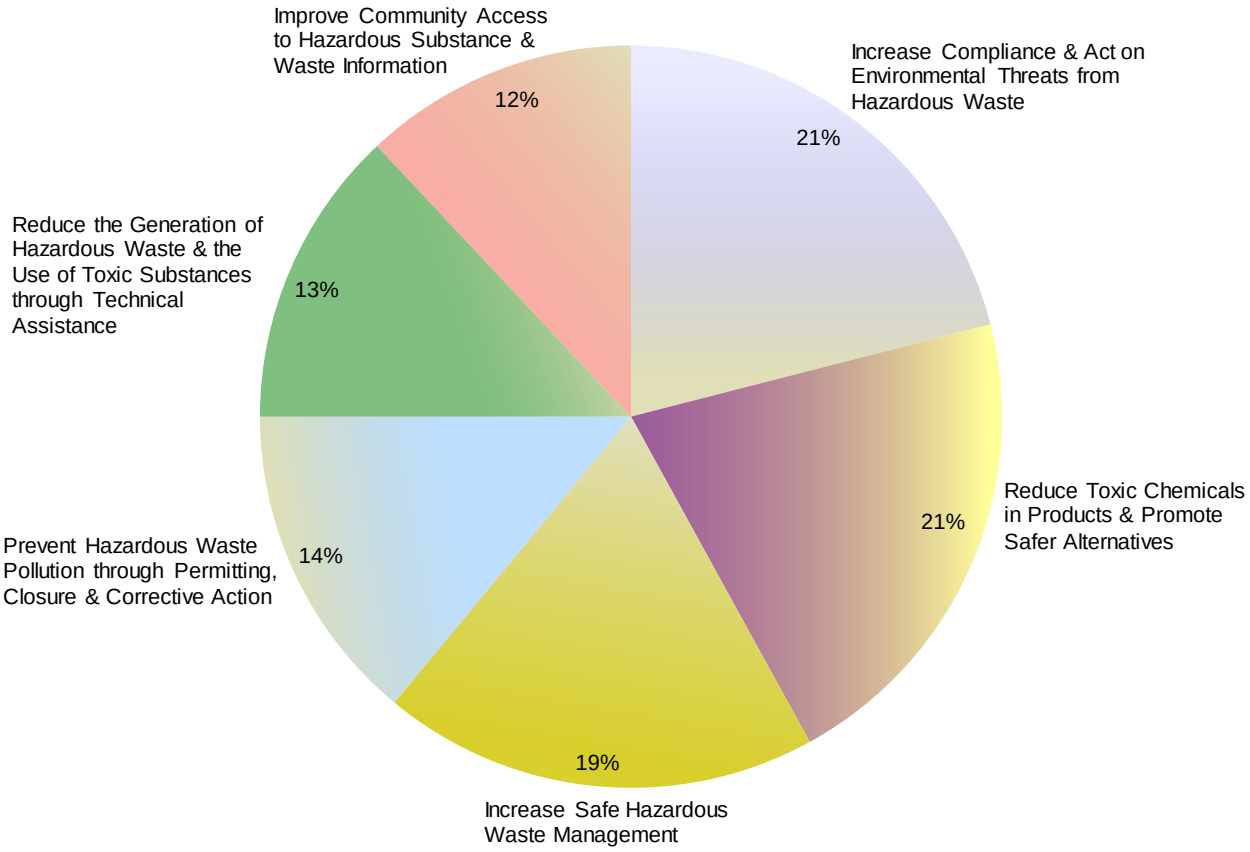
- Publishing and promoting the Shoptalk newsletter to 10,000 subscribers.
- Creating or updating 50 business publications each year and posting them to the web.
- Writing and distributing eight business pollution prevention (P2) success stories during the biennium.
- Updating our compliance and toxics reduction web content.

Performance Measure

- Number of visits to Ecology's Hazardous Waste and Toxics Reduction websites.

Hazardous Waste & Toxics Reduction Program 2019-21 Biennium Budget by Activities

Operating = $42.9 Million | Capital = $3.9 Million[8] | Total = $46.8 Million | FTEs = 140.2

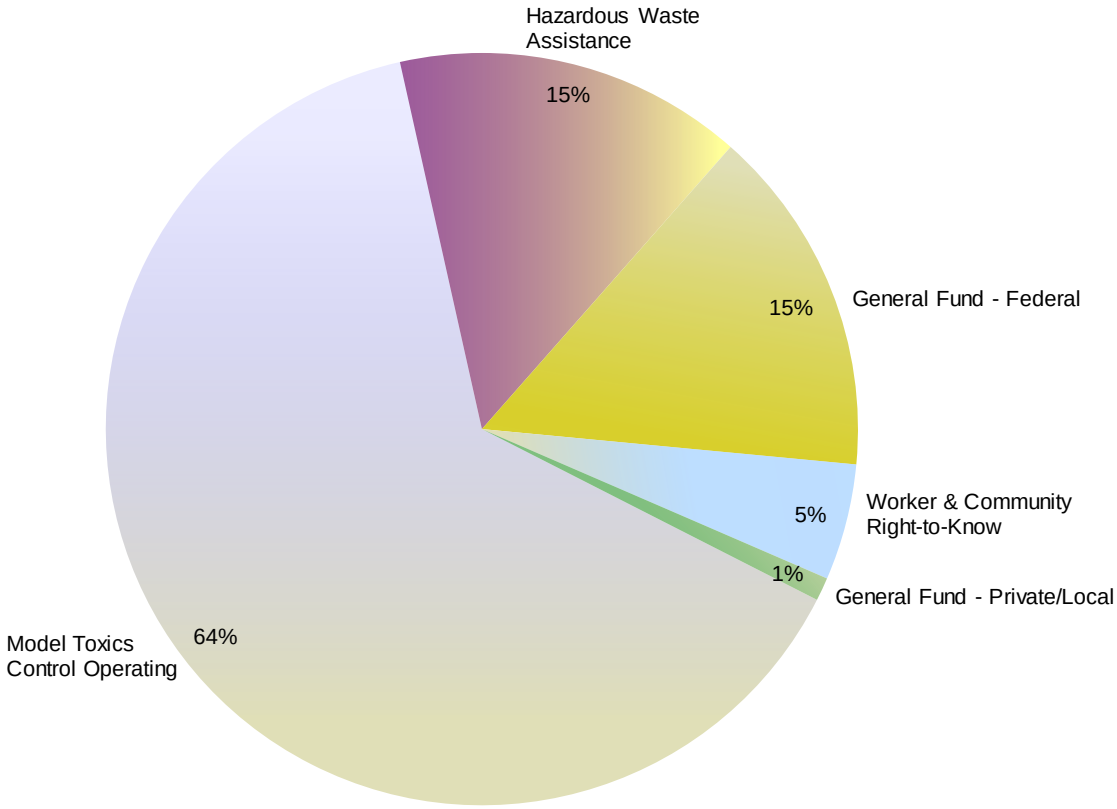


Activities	Amount	%	FTEs
Increase Compliance & Act on Environmental Threats from Hazardous Waste (A021)	$9,086,000	21%	38.5
Reduce Toxic Chemicals in Products & Promote Safer Alternatives (A065)	8,892,000	21%	25.0
Increase Safe Hazardous Waste Management (A022)	7,986,000	19%	12.2
Prevent Hazardous Waste Pollution through Permitting, Closure & Corrective Action (A031)	6,090,000	14%	20.2
Reduce the Generation of Hazardous Waste & the Use of Toxic Substances through Technical Assistance (A052)	5,524,000	13%	20.7
Improve Community Access to Hazardous Substance & Waste Information (A019)	5,303,000	12%	23.6
Hazardous Waste & Toxics Reduction Operating Budget Total	**$42,881,000**	**100%**	**140.2**

[8] Funded entirely by Model Toxics Control Capital Account (23N).

Hazardous Waste & Toxics Reduction Program 2019-21 Biennium Budget by Fund Source

Operating = $42.9 Million | Capital = $3.9 Million[9] | Total = $46.8 Million | FTEs = 140.2

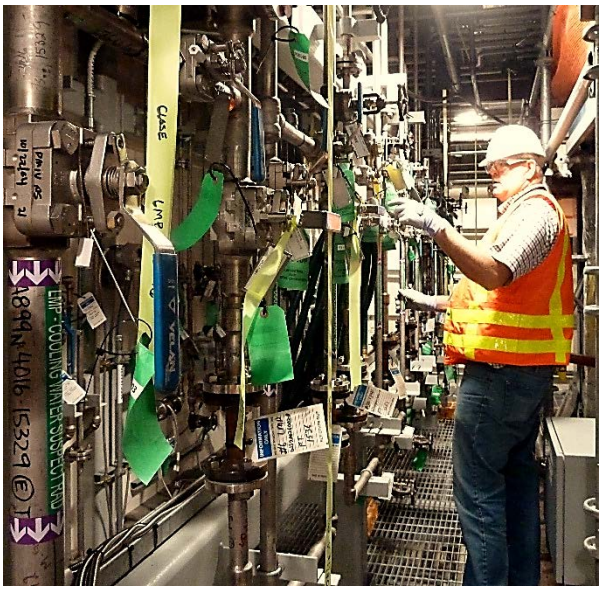


Operating Fund Sources	Amount	%	Uses
Model Toxics Control Operating (23P)	$27,445,000	64%	Promote pollution prevention and safe waste management, primarily through technical assistance to businesses, inspections of large quantity generators of hazardous waste and permitted treatment, storage and disposal facilities, and hazardous waste cleanups. Conduct criminal investigations and enforcement actions. Review and analyze waste-derived fertilizers as part of the fertilizer registration process. Fund and train local government specialists to provide assistance in waste management and reduction and source control. Manage permits, closures, and cleanups at facilities that treat, store, or dispose of hazardous waste. Compile information on hazardous substance use and make this information available to residents and other public entities.
Hazardous Waste Assistance (207)	6,562,000	15%	Provide technical assistance to hazardous waste generators and hazardous substance users. Identify safer chemical alternatives for toxic or hazardous chemicals to help businesses, governments and residents make better choices on what to use and buy.

[9] Funded entirely by Model Toxics Control Capital Account (23N).

Hazardous Waste & Toxics Reduction Program

Operating Fund Sources	Amount	%	Uses
General Fund – Federal (001)	6,478,000	15%	Grant funds received from EPA to implement federal Resource Conservation and Recovery Act (RCRA) and pollution prevention innovations.
Worker & Community Right-to-Know (163)	1,864,000	5%	Provide data systems that compile/gather, maintain, report and make available current hazardous substance and waste information to individuals, businesses, emergency responders, and local government decision makers. Address strategies to best implement environmental justice principles in state agency decision making, to address environmental health disparities.
General Fund – Private/Local (001)	532,000	1%	Manage cleanups at facilities that treat, store, or dispose of hazardous waste.
Operating Budget Total	**$42,881,000**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
Model Toxics Control Capital (23N)	$3,920,404	100%	Remove known toxic components in vehicles and appliances, including switches containing mercury, prior to crushing and shredding. Remove and replace toxic chemicals present in consumer and commercial products before they get into the environment through product replacement opportunities, which directly support current and past Corrective Action Plans (CAPs) recommendations.
Capital Budget Total	**$3,920,404**	**100%**	
Haz. Waste & Toxics Reduction Operating & Capital Budget Total	**$46,801,404**		



Jay Decker, the Nuclear Waste Program's lead facility engineer at the Hanford Tank Waste Treatment Plant, inspects cooling water supply valves for waste melter components. Ecology conducts biweekly construction inspections of the waste melters and other mixed waste facilities at the U.S. Department of Energy Hanford Waste & Immobilization Plant.

Nuclear Waste Program

Program Mission

The Nuclear Waste Program's mission is to:

- Lead the effective and efficient cleanup of the U.S. Department of Energy's Hanford Site.
- Ensure sound management of mixed hazardous wastes in Washington.
- Protect the state's air, water, and land at and adjacent to the Hanford Site.

Environmental Threats

The Hanford Site covers 586 square miles in Southeast Washington. Hanford's half-century of nuclear materials production created one of the world's most polluted areas. The cleanup challenges include:

- Removing and vitrifying (incorporating into glass) an estimated 56 million gallons of radioactive and chemically hazardous waste in Hanford's 177 underground storage tanks.
- Inspecting radioactive mixed wastes stored in over 10,000 stored containers and approximately 12,000 buried and aging containers that need to be retrieved and properly managed.
- Ensuring the safe management of 1,936 highly radioactive capsules containing concentrated cesium and strontium compounds and spent ion exchange columns used to pre-treat tank waste; all stored on above-ground pads.
- Monitoring approximately 190 square miles of contaminated groundwater that flows to and eventually enters the Columbia River. Approximately 70 square miles of contaminated groundwater currently exceed federal and state drinking water standards.
- Permitting the operation and closure of 35 hazardous waste treatment, storage, and disposal sites ranging from small demolition sites to half-mile-long nuclear chemical processing buildings.
- Cleaning up the remaining waste sites and facilities across the site. As cleanup along the Columbia River nears completion, the focus is shifting to 1,500 waste sites in the Central Plateau.

Authorizing Laws

The U.S. Department of Energy (USDOE) operates the Hanford Site. USDOE, the U.S. Environmental Protection Agency (EPA), and the Department of Ecology signed a comprehensive cleanup and compliance agreement on May 15, 1989.

The Hanford Federal Facility Agreement and Consent Order, known as the Tri-Party Agreement (TPA), contains required actions for the Hanford Site cleanup. The TPA reflects a concerted goal of achieving, in an aggressive manner, full regulatory compliance and remediation with enforceable milestones.

Until the late 1980s, USDOE did not fully comply with state hazardous waste, air, or water pollution standards. The TPA includes a consent order requiring USDOE at the Hanford Site to come into compliance with the same hazardous waste rules that regulate private industry.

The laws applied at Hanford include:

- *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund)*
- *Hazardous and Solid Waste Amendments of 1984*
- *Resource Conservation and Recovery Act (RCRA)*
- *Toxic Substances Control Act*
- *Chapter 70.94 RCW, Clean Air Act*
- *Chapter 70.105 RCW, Hazardous Waste Management Act*
- *Chapter70.105D RCW, Model Toxics Control Act*
- *Chapter 90.48 RCW, Clean Water Act*

Constituents and Interested Parties

- *Congress, USDOE, EPA, the Defense Nuclear Facilities Safety Board, and the U.S. Fish and Wildlife Service.*
- *Environmental Council of the States, National Governors Association, Western Governors' Association, State and Tribal Government Working Group funded by the USDOE, and the Oregon Department of Energy.*
- *Tribal Nations: As the state's lead for natural resource damage assessments at the Hanford Site, Ecology works with the Yakama, Umatilla, and Nez Perce Tribes.*
- *Franklin, Benton, and Grant counties and the cities of Pasco, Richland, Kennewick, Benton City, and West Richland.*
- *Hanford Advisory Board, Heart of America Northwest, Hanford Challenge, Physicians for Social Responsibility, Washington League of Women Voters, and Columbia Riverkeeper.*
- *Tri-Cities area businesses (TRIDEC), labor groups, and residents.*
- *Washington State Department of Health, Department of Fish and Wildlife, and the Northwest Interstate Compact on Low-Level Radioactive Waste.*

Issues

Slowed Progress in Site Cleanup

USDOE's Environmental Management Program is the largest environmental cleanup program in the nation. The Hanford Site cleanup is the largest and most costly effort in this program.

The federal budget continues to be a major concern. It has remained generally flat, even as cleanup costs increase. If that trend continues, it will become virtually impossible for USDOE to meet the cleanup schedule set in the TPA and Tank Waste Consent Decree milestones.

USDOE has missed several major cleanup milestones over the years and has notified Ecology that current tank retrieval and Waste Treatment Plant (WTP) construction milestones are in jeopardy. USDOE put the pretreatment and high-level waste vitrification facilities on hold based on funding and project technical issues.

Also, the partial collapse of the roof over PUREX Tunnel 1 in spring 2017 diverted some funds to ensure that both PUREX Tunnel 1 and 2 were stabilized.

That incident further illustrates rising risks due to aging infrastructure throughout the Hanford Site. Addressing those risks competes with sitewide cleanup priorities within the flat federal cleanup budget.

Tank Waste Cleanup

Cleaning up underground tanks at the Hanford Site will be one of the longest, most costly public works projects ever performed by the U.S. government.

A key element of the cleanup work is retrieving radioactive wastes from aging, failing, single-shell tanks and placing the

waste in newer (although still past their design life) double-shell tanks for eventual treatment and disposal.

Tank waste retrieval has slowed. USDOE will delay retrievals, because there is very little double-shell tank space available and will shift resources to focus on meeting Tank Waste Consent Decree milestones.

In 2012, a leak was identified in double-shell tank AY-102. In early 2017, USDOE completed waste removal from the primary (inner) tank. There is waste remaining in both the primary tank and secondary containment that USDOE cannot remove. USDOE determined that they cannot repair the tank and have agreed to close it.

In addition, USDOE has stopped construction on some parts of the WTP due to funding and project technical issues. Instead, they are focusing on completing facilities related to direct feed low activity waste (DFLAW).

The low activity waste vitrification facility is almost complete, with many systems being turned over to start-up preparations. Ecology is also supporting permitting of two new facilities to support DFLAW—the effluent management facility and the tank side cesium removal facility.

We are working to ensure that USDOE meets its Consent Decree obligation to complete hot commissioning of the DFLAW process by December 2023.

Continuing Hanford Cleanup Progress

Progress has continued on some highly contaminated sites at Hanford. Ecology continues to oversee USDOE efforts to maintain progress on stabilizing and decommissioning these sites to reduce hazards to workers and the environment.

- Plutonium Finishing Plant – USDOE expected to reduce this plant on the Central Plateau to slab-on-grade during federal fiscal year 2018. Delays due to management of plutonium contamination spread from the plant have contributed to project delays.
- Contaminated groundwater – As of fall 2018, more than 27.5 billion gallons of contaminated groundwater had been treated in the central Hanford "200 Area," removing 792,849 kg of nitrate, 29,034 kg of carbon tetrachloride, 437 kg of chromium, and 1,350 kg of uranium.

Protecting the Columbia River

Work is ongoing to clean up sites that could add to groundwater contamination near the Columbia River. Large soil excavations continue in the 300 and 100 Areas. The remaining sludge contained in underwater storage at the 105-K Reactor West Fuel Storage Basin was repackaged and moved to dry storage at T Plant in September 2019. This will allow the basin to be emptied and the associated soil contamination to be addressed.

Work under both interim and final Superfund remedial decisions must continue to clean up groundwater before it enters the Columbia River. Completing the final and comprehensive Superfund investigations along the river has taken longer than expected. Several of the reactor areas must still complete the process to put final remedy decisions in place.

Decisions about Additional Waste Storage or Treatment at Hanford

More than ten years ago, some pending national waste disposal decisions identified Hanford as a potential storage, treatment, and disposal site for not only wastes and materials generated onsite, but also for wastes from many other sites in the country.

Because of a settlement agreement, USDOE cannot import low-level mixed or transuranic wastes from other USDOE sites to Hanford. Settlement of the tank waste lawsuit extends this ban on importing waste until the tank waste treatment facility is operational.

New nuclear waste policy issues are developing as the federal government is considering or has already proposed changes in the definition of Greater Than Class C waste, transuranic waste, and high-level waste.

Ecology is participating in national forums that deal with these issues to advise state policy makers on potential responses to these cleanup plans. This important cleanup work is severely limited by current federal funding levels.

Activities, Results, and Performance Measures

Treat and Dispose of Hanford's High-Level Radioactive Tank Waste

Ecology protects public health and natural resources by providing regulatory oversight for the treatment and removal of highly radioactive tank waste at the Hanford Site. This activity is focused on the design, permitting, construction, and operation of the Hanford Waste Treatment Plant, the Integrated Disposal Facility (a mixed, low-level waste landfill), and the immobilized high-level waste storage facility.

Expected Results

- 53 million gallons of high-level radioactive mixed waste from Hanford's interim storage tanks will be retrieved and treated.
- Construction of the Hanford Tank Waste Treatment Plant will continue at a rate that supports approved milestones.
- Conceptual planning and design of an interim storage facility for immobilized high-level waste will start.

Performance Measure

- Percentage completion of tasks required to construct and operate Hanford's low-activity tank waste treatment plant.

Restore the Air, Soil, and Water Contaminated from Past Activities at Hanford

Ecology protects public health and natural resources by working to restore the public use of air, soil, and water at the Hanford Site through clean up of contaminated sites from past activities. Radioactive and hazardous contaminants are removed, residual contaminants are contained and monitored, and mitigation of natural resource damage occurs.

Expected Results

- Public use of the air, soil, and water at Hanford will be restored.
- Human and environmental risks associated with past Hanford activities will be removed or reduced.
- Cleanup of contaminated waste sites adjacent to the Columbia River will continue.
- Cleanup on the Hanford Central Plateau will begin.

Performance Measures

- Gallons of groundwater contaminated by hexavalent chromium that is remediated at Hanford (in millions of gallons).
- Pounds of chromium removed from contaminated groundwater at Hanford.

Ensure the Safe Management of Radioactive Mixed Waste at Hanford

Ecology provides regulatory oversight for the safe storage, treatment, and disposal of liquid and solid dangerous and radioactive mixed wastes at the Hanford Site, as well as at radioactive mixed waste sites throughout the state.

This activity regulates management of this historic and ongoing waste stream and ensures the retrieval, treatment, and safe disposal of high-risk transuranic and high-activity wastes currently buried in shallow, unlined trenches.

Expected Results

- Transuranic and mixed low-level waste will be managed and retrieved, treated and processed, and stored and disposed of in compliance with existing regulations to reduce risks posed to Hanford workers and the environment.
- 15,058 cubic meters (cumulative) of retrievably stored waste will be retrieved from the burial grounds at Hanford, certified for shipment to the Waste Isolation Pilot Plant in New Mexico, or treated for disposal at Hanford by September 30, 2030.
- The US Ecology commercial low-level radioactive waste site Model Toxics Control Act (MTCA) remediation will be completed in coordination with closure activities that are being directed by the Washington Department of Health.

Performance Measure

- Cubic meters of radioactive, dangerous waste certified by USDOE for shipment to the Waste Isolation Pilot Project in New Mexico or treated for disposal at Hanford.

Ensure Safe Tank Operations, Storage of Tank Wastes, and Closure of the Waste Storage Tanks at Hanford

Ecology protects public health and natural resources by ensuring safe storage and management of 53 million gallons of high-level radioactive tank waste at the Hanford Site.

The Hanford Tank Waste Project is focused on permitting the double-shell tank waste storage system, removing liquid wastes from the single-shell tanks, and beginning to close portions of the tank waste storage system. In coordination with the Hanford Tank Waste Disposal Project, the tank waste will be removed and treated, leading to eventual closure of all 177 Hanford tanks by 2028.

Expected Results

- Public health and environmental risk from the highly toxic, mixed radioactive and hazardous tank waste is reduced and tank wastes are safely managed until treated and properly disposed of.
- Single-shell tanks are emptied and waste is safely stored to meet consent decree requirements.
- A permit is issued for the double-shell tank farms and the 242A evaporator by January 2021.
- A closure plan is issued for the single-shell tank farms by January 2021.

Performance Measure

- Number of single-shell tanks containing radioactive hazardous waste emptied at Hanford.

Clean Up and Remove Large, Complex, Contaminated Facilities throughout Hanford

Ecology oversees decommissioning of the large, complex, and high-risk facilities throughout the Hanford Site, including nuclear reactors and chemical processing facilities used for nuclear weapons material production. Transition of these facilities to safe and stable conditions requires coordinating multiple regulatory and technical requirements.

Ecology is also responsible for regulatory oversight of waste management activities at four facilities (Energy Northwest, AREVA, Perma-Fix Northwest, and the U.S. Navy's Puget Sound Naval Shipyard) not under the management of the USDOE.

Expected Results

- All major facilities on the Hanford Site will be decontaminated and decommissioned and either demolished or placed into a long-term safe storage configuration.
- Removal and remediation actions for the 324 Building and soil contamination will be performed.

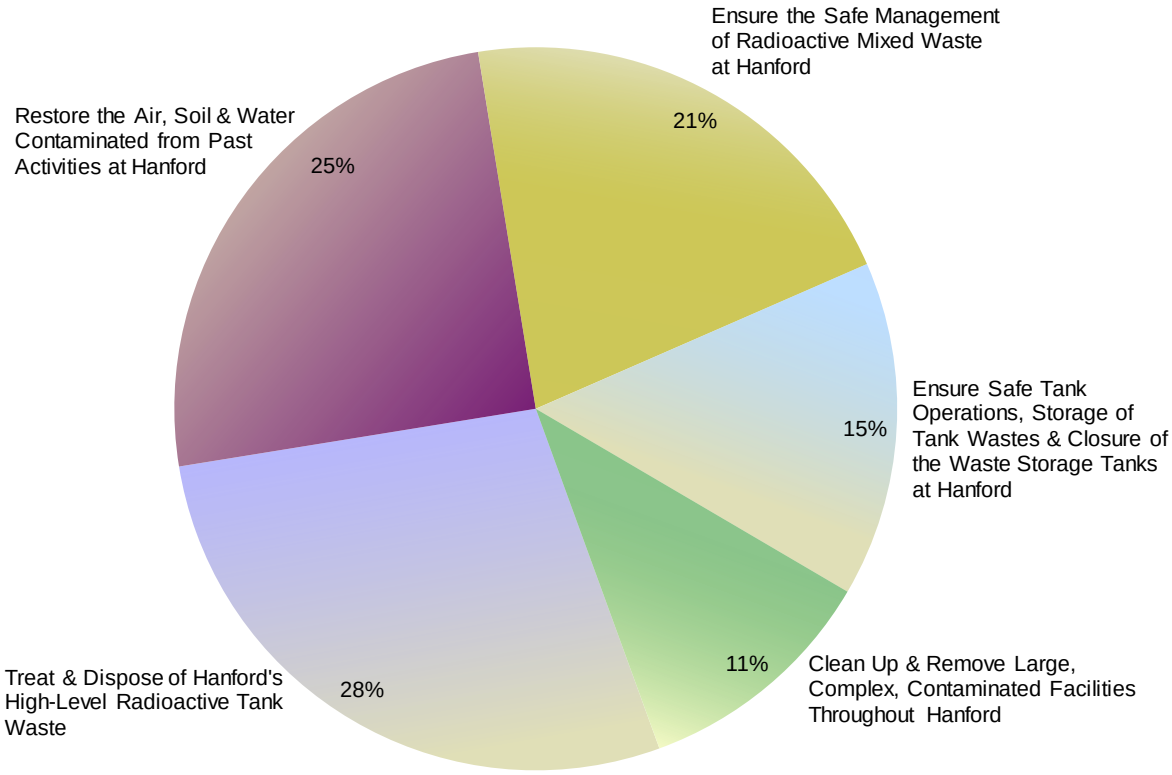
- Capsules containing cesium and strontium from the Waste Encapsulation Storage Facility will be transferred to dry storage at a new permitted interim storage facility at Hanford.
- The Plutonium Uranium Extraction Plant (PUREX) radioactive mixed-waste storage tunnels, one of which collapsed, will be structurally stabilized and closed.
- Permitting and compliance oversight at Perma-Fix Northwest, AREVA, Puget Sound Naval Shipyard, and Energy Northwest will continue.

Performance Measure

- Percentage completion of decontamination/decommission of the Hanford plutonium finishing plant.

Nuclear Waste Program 2019-21 Biennium Budget by Activities

Operating = $27.6 Million | Capital = $2.0 Million[10] | Total = $29.6 Million | FTEs = 97.5

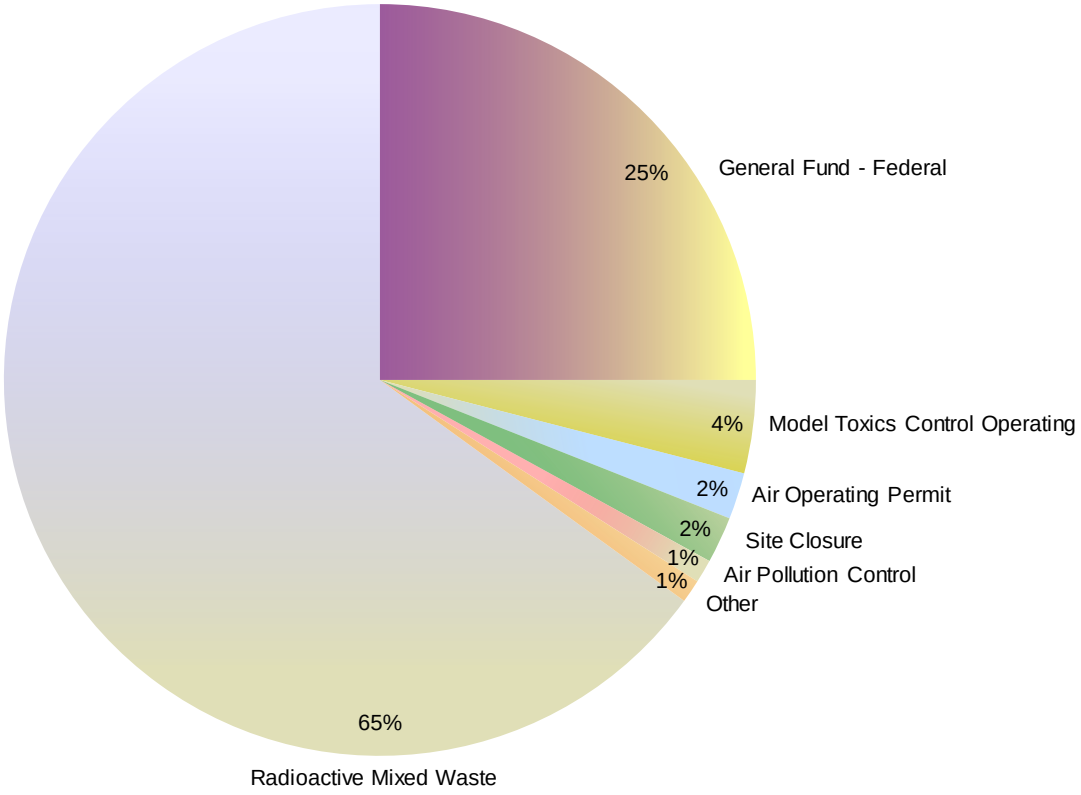


Activities	Amount	%	FTEs
Treat & Dispose of Hanford's High-Level Radioactive Tank Waste (A016)	$7,792,000	28%	32.4
Restore the Air, Soil & Water Contaminated from Past Activities at Hanford (A014)	7,031,000	25%	16.5
Ensure the Safe Management of Radioactive Mixed Waste at Hanford (A018)	5,762,000	21%	18.6
Ensure Safe Tank Operations, Storage of Tank Wastes & Closure of the Waste Storage Tanks at Hanford (A017)	4,081,000	15%	17.5
Clean Up & Remove Large, Complex, Contaminated Facilities Throughout Hanford (A015)	2,980,000	11%	12.5
Nuclear Waste Operating Budget Total	**$27,646,000**	**100%**	**97.5**

[10] Funded entirely by Site Closure Account (125).

Nuclear Waste Program 2019-21 Biennium Budget by Fund Source

Operating = $27.6 Million | Capital = $2.0 Million[11] | Total = $29.6 Million | FTEs = 97.5



Operating Fund Sources	Amount	%	Uses
Radioactive Mixed Waste (20R)	$17,824,000	65%	Fund implementation of the Hazardous Waste Management Act at facilities that manage radioactive mixed wastes. The HWMA provides a comprehensive statewide framework for the planning, regulation, control, and management of hazardous waste, which will prevent land, air, and water pollution and conserve the natural, economic, and energy resources of the state.
General Fund – Federal (001)	6,764,000	25%	Oversee removal of radiological and chemical contaminants at Hanford, provide regulatory assistance to USDOE and EPA and implement the provisions of the Hanford Federal Facility Agreement and Consent Order.
Model Toxics Control Operating (23P)	1,097,000	4%	Oversee remediation of historic hazardous substance releases at the commercial low-level radioactive waste disposal facility (commercially operated disposal site on Hanford).
Air Operating Permit (219)	778,000	2%	Conduct permitting and compliance assurance activities for air emissions sources on the Hanford Site.

[11] Funded entirely by Site Closure Account (125).

Operating Fund Sources	Amount	%	Uses
Site Closure (125)	582,000	2%	Northwest Interstate Compact low-level radioactive waste management policy oversight for commercial low-level radioactive waste disposal within the state (commercially operated disposal site on Hanford).
Air Pollution Control (216)	211,000	1%	Regulation of air pollutants at new or modified Hanford facilities subject to the Clean Air Act.
Other:			
General Fund – Private/Local (001)	164,000	<1%	All moneys except the $600 required for Ecology's annual prime lease payment to USDOE are passed through to Benton County.
Water Quality Permit (176)	148,000	<1%	Activities needed to maintain safe facilities for treating wastewater discharges at the Hanford Site.
General Fund – State (001)	78,000	<1%	Initial regulation air pollutant sources not billable under Air Pollution Control (216) and Congressional Liaison activities not funded with GF-Fed or RMWA funds.
Operating Budget Total	**$27,646,000**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
Site Closure (125)	$1,992,011	100%	Investigation, closure, and decommissioning of the Hanford low-level radioactive waste disposal facility. (Total Capital appropriation is $8,505,000. $6,500,000 is unallotted pending acquisition of soils for cover material.)
Capital Budget Total	**$1,992,011**	**100%**	
Nuclear Waste Operating & Capital Budget Total	**$29,638,011**		

Suzanne Shull, a biogeographic specialist at Padilla Bay National Estuarine Research Reserve, counts eelgrass shoots along a 4 km long transect that is revisited annually to measure growth metrics of Zostera marina and Zostera japonica.

Shorelands & Environmental Assistance Program

Program Mission

The Shorelands and Environmental Assistance Program's mission is to create community conservation partnerships to protect and restore our shorelands, wetlands, and floodplains.

Environmental Threats

Washington's natural environment defines the quality of life for its residents. Our state has an abundance of shorelines, rivers, streams, lakes, wetlands, floodplains, and marine waters. These natural treasures attract people to the state and contribute to our thriving economy and public health. At the same time, poorly managed population growth and development can threaten the very resources that Washingtonians value.

In the last 100 years, many shorelines, floodplains, and wetlands have been damaged or destroyed. The challenge facing our communities is to manage development for the 21st century while protecting and restoring these important assets. As population growth continues to pressure remaining natural habitats, we must find effective means to preserve them and protect their connections to other functioning habitats.

Authorizing Laws

- *Federal Clean Water Act*
- *Federal Coastal Zone Management Act*
- *Chapter 36.70A RCW, Growth Management Act*
- *Chapter 43.143 RCW, Ocean Resource Management Act*
- *Chapter 43.21C RCW, State Environmental Policy Act (SEPA)*
- *Chapter 43.220 RCW, Washington Conservation Corps (WCC)*
- *Chapter 43.372 RCW, Marine Waters Planning and Management*
- *Chapter 78.56 RCW, Metals, Mining and Milling Act*
- *RCW 86.12.200, Comprehensive Flood Control Management Plans*
- *Chapter 86.16 RCW, Floodplain Management Act*
- *Chapter 86.26 RCW, State Participation in Flood Control Maintenance*
- *RCW 90.03.265 and 43.21a.690, Cost Reimbursement*
- *Chapter 90.48 RCW, Water Pollution Control Act*
- *Chapter 90.58 RCW, Shoreline Management Act*
- *Chapter 90.71 RCW, Puget Sound Water Quality Program*
- *Chapter 90.74 RCW, Aquatic Resources Mitigation*
- *Chapter 90.84 RCW, Wetlands Mitigation Banking*

Constituents/Interested Parties

- *Residents.*
- *Property owners.*
- *Local governments.*
- *State and federal resource agencies.*
- *Tribes.*
- *Businesses.*
- *Environmental organizations.*

Issues

Managing and Protecting Shorelines

Shoreline Master Programs (SMPs) are important tools in protecting and restoring shorelines. Local governments and Ecology collaborate to develop SMPs that include goals, policies, and regulations for managing shorelines. SMPs help us protect and restore important habitats, keep water clean, protect homes and property from shoreline hazards, and provide opportunities for public access.

Ecology provides grants and technical guidance to help communities throughout the state update and implement their SMPs. This includes supporting completion of the comprehensive updates required in the Shoreline Management Act (85 percent of the 263 cities and counties have completed their updates). Beginning in the 2017-19 Biennium, and continuing through 2023, this also includes supporting the required periodic review of SMPs.

In the 2019-2021 Biennium, Ecology will continue to direct resources toward evaluating permit compliance and providing technical assistance on implementing SMPs to ensure they are efficient and effective.

Sustaining Our Remaining Wetlands

Wetlands provide many benefits to people, fish, and wildlife. They filter pollutants, provide habitat, store floodwaters, recharge aquifers, and maintain water flows during dry periods. Washington State has lost more than one-third of our wetlands.

To stop this loss, laws require mitigation to replace lost wetlands and their functions. Our priorities are:

- Ensuring wetlands are protected and replaced by conditioning projects through water quality certifications.
- Implementing a compliance program to ensure approved mitigation is successful.
- Supporting alternative mitigation approaches (e.g., wetland banking and advance mitigation) and providing templates, guidance, and training on these approaches.
- Assisting local governments in managing wetlands through technical assistance on updated critical areas ordinances, training on wetland tools and topics, and voluntary stewardship programs in agricultural areas.
- Protecting important coastal wetlands through acquisition grant programs.

Protecting and Restoring Puget Sound Watersheds

Ecology received watershed grant funding from the U.S. Environmental Protection Agency (EPA) through the National Estuary Program (NEP) to implement priority work consistent with the 2020 Action Agenda for protecting and restoring Puget Sound. The primary focus of the watershed grant is to implement a comprehensive, integrated watershed protection and restoration strategy that advances ecosystem recovery.

Ecology is working on the second grant with a focus on protecting and restoring riparian zones in agricultural areas. In response to Tribal Treaty Rights at Risk, EPA provided Ecology additional NEP funding to implement a riparian protection program through purchasing conservation easements in agricultural areas. Ecology will continue to work with local watershed entities, tribes, and conservation districts to identify key locations for riparian easements. We will provide grant funding for protecting those

riparian zones that are critical for salmon recovery.

Building Resilient Coastal Communities

Coastal communities in Washington State are experiencing the impacts of hazards, such as erosion, landslides, and flooding. Experts predict climate change will exacerbate these stressors and increase risk to vital human and natural systems.

Ecology works to improve resilience by helping communities prepare for impacts from current and future hazards. Priorities include:

- Collaborating with key partners to provide communities with better data and information about hazards.
- Providing shoreline planning assistance to help shape where and how development occurs.
- Coordinating across programs and levels of government to provide practical support for communities.

In the 2019-2021 Biennium, Ecology will partner with coastal communities and state agencies (including Washington Sea Grant, Emergency Management Division, and Washington State University Extension) to identify and document coastal resilience projects and begin developing strategies for bringing those projects to fruition.

Ocean and Coastal Health

Washington's spectacular Pacific Coast and ocean waters face their own set of challenges and opportunities. Aquatic invasive species, toxic algal blooms, hypoxic events, warming ocean temperatures, and ocean acidification threaten the health of our ecosystems and our coastal economies. Shoreline erosion is already a threat to infrastructure and property and will be even more problematic as sea levels rise. The potential for new renewable ocean energy facilities and other new use proposals, in an already busy ocean, heightens the need for more thoughtful planning.

Ecology will work with stakeholders to improve coastal and ocean resource management by:

- Developing guidance for implementing the marine spatial plan for Washington's Pacific Coast to optimize our efforts to understand potential impacts of ocean uses and establish appropriate strategies to manage these activities.
- Improving research, monitoring, and understanding of our ocean resources and uses.
- Addressing erosion and sediment management issues.
- Supporting development of sustainable coastal communities by supporting local and regional planning processes.
- Advancing ocean policy and management priorities and needs.

Ecology will complete this work in partnership with the interagency State Ocean Caucus, Washington Coastal Marine Advisory Council, Olympic Coast Intergovernmental Policy Council, and other local, regional, tribal, federal, and international partnerships.

Protecting Floodplain Resources

Ecology is the lead state agency for floodplain management in Washington. We support approaches that:

- Improve public safety.
- Prevent damage to property and public infrastructure.
- Protect flood storage, groundwater recharge, and habitat for aquatic and terrestrial species.

Ecology assists local governments and residents with awareness, planning, and project funding for flood hazard reduction and floodplain management. In addition to our ongoing assistance to local governments to meet the state-adopted National Flood Insurance Program (NFIP), Ecology is

collaborating on a new approach, Floodplains by Design (FbD).

FbD is a public-private partnership working for better coordination of investments in flood risk management and ecosystem recovery in Washington. This framework approaches floodplain management holistically—moving beyond disjointed, single-focus approaches—to projects that both reduce flood risk to people and improve ecological functions of our floodplains. In the 2019-21 Biennium, Ecology will administer the FbD grant program, funded at $50.4 million. We will also work with The Nature Conservancy and other partners to increase engagement with tribes, local governments, and the agricultural community in leading and sustaining the FbD partnership.

Developing the Next Generation of Leaders While Providing Environmental and Disaster Assistance

In Washington's current economy, unemployment disproportionately affects young adults (ages 18-25) and military veterans. A year of service in the Washington Conservation Corps (WCC) provides a living allowance for 300 young adults and military veterans and offers opportunities for career exploration, professional development, and job placement assistance. The WCC consists of three sub-programs; our original Corps Program, Veteran Conservation Corps, and Puget SoundCorps.

During their year of service, WCC members complete environmental and disaster service projects while serving on crews stationed throughout Washington State. These crews provide assistance to local, state, and federal natural resource agencies through the following activities:

- Installing native trees and shrubs to restore or enhance habitat for fish and wildlife.
- Monitoring restoration sites and controlling invasive species.
- Increasing public access and safety through constructing or improving trails and boardwalks.
- Reducing the risk of floods and wildfires through environmental restoration and forest health management.

Efforts to reduce fires and floods cannot eliminate these risks entirely, so Ecology prepares WCC members and staff to respond to natural disasters when they occur. In recent years, Ecology's WCC responded to wildfires, floods, drought, landslides, spills, and debris removal. Assistance includes logistical support and direct service.

Protecting Puget Sound Habitat

Habitat protection is a priority for Puget Sound restoration. Bulkheads, rip rap, and concrete walls have altered one-third of Puget Sound's shoreline. Many wetlands and floodplains have been lost to cutting, grading, and filling for homes, businesses, and transportation.

In the 2019-2021 Biennium, Ecology will help counties and cities implement SMPs and critical area ordinances that protect shorelines and other important habitats. Ecology will improve the effectiveness of wetland mitigation and floodplain management, provide training and technical assistance, complete habitat restoration projects through the WCC/Puget SoundCorps, and create partnerships to promote appropriate development.

Reducing Flood Damage and Restoring Aquatic Habitat in the Chehalis River Basin

In 2016, the Legislature established the Office of Chehalis Basin in Ecology. The office is created to aggressively pursue implementation of an integrated strategy for long-term flood damage reduction and aquatic species restoration in the basin, and to administer funding provided by the Legislature to implement the strategy. The Chehalis Basin Strategy is an ambitious

collection of potential actions to address these challenges. The Strategy includes near-term and long-term actions, as well as small- and large-scale projects. The Chehalis Basin fishery is in decline and major floods have been getting bigger. Not taking action could cost $3.5 billion in damage to families and communities over the next 100 years—more with climate change. Today, the Chehalis Basin has no salmon species listed under the Endangered Species Act. But if the decline continues, listings could occur.

The Office of Chehalis Basin will collaborate with federal and other state agencies and tribal and local leaders to use the $73.2 million capital appropriation for the 2019-21 Biennium to:

- Complete and begin to implement the first phase of a comprehensive, basin-wide Aquatic Species Restoration Plan.
- Complete project-level environmental review for raising the Chehalis/Centralia airport levee and the dam being considered on the main stem Chehalis River.
- Support the first phase of constructing the Aberdeen/Hoquiam North Shore Levee project.
- Continue evaluating forest practices with regard to hydrology in the Basin.
- Design and implement local-scale flood damage reduction projects to protect infrastructure (Chehalis River Basin Flood Authority projects).
- Develop and begin to implement a basin-wide flood-proofing program.
- Support the Chehalis Basin Board.
- Complete a long-term strategy assessment for public review, which will articulate the Chehalis Basin Board's preferred long-term strategy (including an implementation schedule and quantified measures for evaluating the success of implementation).
- Continue the public involvement and outreach strategy for all the actions and activities associated with the Chehalis Basin Strategy.

Activities, Results, and Performance Measures

Protect, Restore, and Manage Wetlands

Ecology has the lead responsibility in implementing the state Water Pollution Control Act, which requires wetland protection. We provide technical assistance to local governments, helping them implement requirements in the Shoreline Management and Growth Management Act. Staff also provide technical assistance to non-government entities on wetlands conservation and stewardship programs. Ecology provides leadership on wetlands issues, coordinating statewide policy issues, and developing new approaches for managing and restoring wetlands. Properly functioning wetlands protect water quality, reduce flooding, provide aquifer recharge for drinking water and other uses, and provide critical habitat for fish and wildlife.

Expected Results

- Wetlands are protected, restored, and managed consistent with state and local permits and laws.
- Local governments and other parties get technical assistance to carry out local wetland protection efforts.
- Wetland losses are fully replaced by improving the success rate of wetland mitigation.
- Approved mitigation achieves compliance through meaningful performance standards and monitoring project success.

Performance Measures

- Percentage of mitigation sites inspected within 18 months after receiving as-built reports.
- Number of completed watershed characterizations.

- Percentage of wetland banking certification documents reviewed within 30 days of receipt.

Restore Watersheds by Supporting Community-Based Projects with the Washington Conservation Corps

The Washington Conservation Corps (WCC) was established in 1983. WCC's mission is to conserve, rehabilitate, and enhance the state's natural and environmental resources, while providing educational opportunities and meaningful work experiences for young adults (ages 18-25).

The WCC creates partnerships with federal, state, and local agencies, private entities, and nonprofit groups to complete a variety of conservation related projects. These include stream and riparian restoration, wetlands restoration and enhancement, soil stabilization, and other forest restoration activities, fencing, and trail work. The WCC also provides emergency response and hazard mitigation services to local communities.

Expected Results

- Local communities get help from Washington Conservation Corps crews to carry out conservation and emergency response projects.

Performance Measures

- Number of native trees and shrubs planted by WCC crew members.
- Acres of habitat created or improved for fish and wildlife by WCC crew members.
- Miles of trails improved or created on public lands by WCC crew members.

Protect and Manage Shorelines in Partnership with Local Governments

The Shoreline Management Act establishes a cooperative program between local and state governments, where local governments develop and administer local Shoreline Master Programs, and Ecology provides support and oversight. We are involved in shoreline management in four primary ways:

- Developing guidelines for local shoreline programs.
- Providing technical assistance to local governments and applicants on shoreline planning and permitting activities.
- Reviewing and approving amendments to local Shoreline Master Programs.
- Reviewing permits to ensure resource protection and implementation of the law.

Ecology works with local governments on permit compliance by responding to public inquiries and complaints, making field visits, providing compliance related technical assistance, and issuing notices of correction, orders, and penalties. Properly managed shorelines provide habitat for fish and wildlife, minimize flooding and property damage, and provide land use certainty to local landowners.

Expected Results

- Shorelines of the state are protected, restored, and managed consistent with state and local laws.
- Local governments get technical and financial assistance to update their Shoreline Master Programs.
- Permits approved by local governments are consistent with their Shoreline Master Programs.

Performance Measure

- Number of communities (cities and counties) that have submitted updated Shoreline Master Programs.

Provide Technical Training, Education, and Research through Padilla Bay Estuarine Reserve

The Padilla Bay National Estuarine Research Reserve is one of 25 national reserves established to protect estuaries for research and education. The Padilla Bay Reserve in Skagit County conducts a broad array of

public education programs, technical and professional training, coastal restoration, and scientific research and monitoring.

The Reserve, managed in partnership with the National Oceanic and Atmospheric Administration (NOAA), includes over 11,000 acres of tidelands and uplands; the Breazeale Interpretive Center; a research laboratory; residential quarters; trails; and support facilities. The Reserve also provides funding and technical support to local Marine Resource Committees as part of the Northwest Straits Initiative and administers the Northwest Straits Marine Commission as established by Senator Murray in 1998.

Expected Results

- Efficiently manage and maintain Padilla Bay Reserve to provide training and education for current and future coastal decision makers by increasing their technical expertise and level of knowledge.
- Coastal and land-use managers and planners are trained to carry out environmental policies and rules in Western Washington and gain a better understanding of issues, science, innovative methods, and rules.
- Teachers and students of all ages gain increased knowledge of the health and restoration of Puget Sound, climate change, ocean acidification, and sea-level rise.
- Ecosystem research is carried out and results shared with government and academic organizations.
- Volunteers and professionals carry out restoration activities to improve Puget Sound.

Performance Measures

- Number of teachers, students, adults, and professionals participating in Puget Sound education and training programs at the Padilla Bay Reserve.
- Percentage of Puget Sound and coastal training workshop participants who said they intend to apply what they learned in their work.

Provide Technical and Financial Assistance to Local Governments to Reduce Flood Hazards

The Department of Ecology administers the Flood Control Assistance Account Program, providing grants and technical assistance to local governments for flood damage reduction projects and comprehensive flood hazard management planning. Our staff review and approve local Comprehensive Flood Hazard Management Plans and inspect construction of flood damage reduction projects.

Ecology is also the state's coordinating agency for the National Flood Insurance Program (NFIP) and receives an annual Community Assistance Program grant to provide technical assistance and support to 286 communities enrolled in the NFIP. In this role, staff make regularly scheduled technical assistance visits to communities, assess local regulatory programs for compliance with state and federal requirements, and provide workshops and other outreach on flood hazard recognition and reduction. Proper flood control planning and projects protect both private and public property, as well as natural resources and fish and wildlife habitat.

Expected Results

- Local flood hazard management plans and flood control projects reduce flood damage to property and the environment.
- Local governments get technical and financial help to maintain flood management programs and respond to flooding.
- Flood-prone communities are better prepared for responding to flooding emergencies.

Performance Measure

- Number of flood-prone communities that receive support on flood hazard reduction and regulations.

Protect Water Quality by Reviewing and Conditioning Construction Projects

The Department of Ecology issues water quality certifications and Coastal Zone Management Act consistency determinations for water related construction projects. Staff provide early review on projects whenever possible (e.g., through State Environmental Policy Act review and pre-application meetings) and provide project guidance and technical assistance through phone calls, e-mails, site visits, and workshops. Projects are approved, denied, or conditioned to protect water quality, sediment quality, and fish and shellfish habitat. This activity allows the state to actively participate in federal permitting activities to ensure that state interests are adequately represented and considered.

Expected Results

- Water quality, habitat, and aquatic life are protected and managed consistent with federal, state, and local laws.
- Applicants get technical help on reducing impacts and permit issues.
- Decisions are timely, thorough, and consistent.
- The average number of days it takes to make a 401 permit certification decision is reduced.
- Projects comply with permit conditions.

Performance Measure

- The number of days it takes to make a final decision on 401 water quality certifications.
- Percent of reviews and decisions made within agreed upon timeframes for WSDOT permit documents.

Provide Technical Assistance on State Environmental Policy Act (SEPA) Review

SEPA was adopted in 1971 to ensure that state and local decision makers consider the environmental impacts of their actions. The SEPA law provides an opportunity for local resident involvement in the environmental review process and provides developers an opportunity to identify mitigation opportunities that facilitate overall project approval and minimize development costs. Ecology provides training and assistance to local governments and the public and manages the SEPA register.

Expected Results

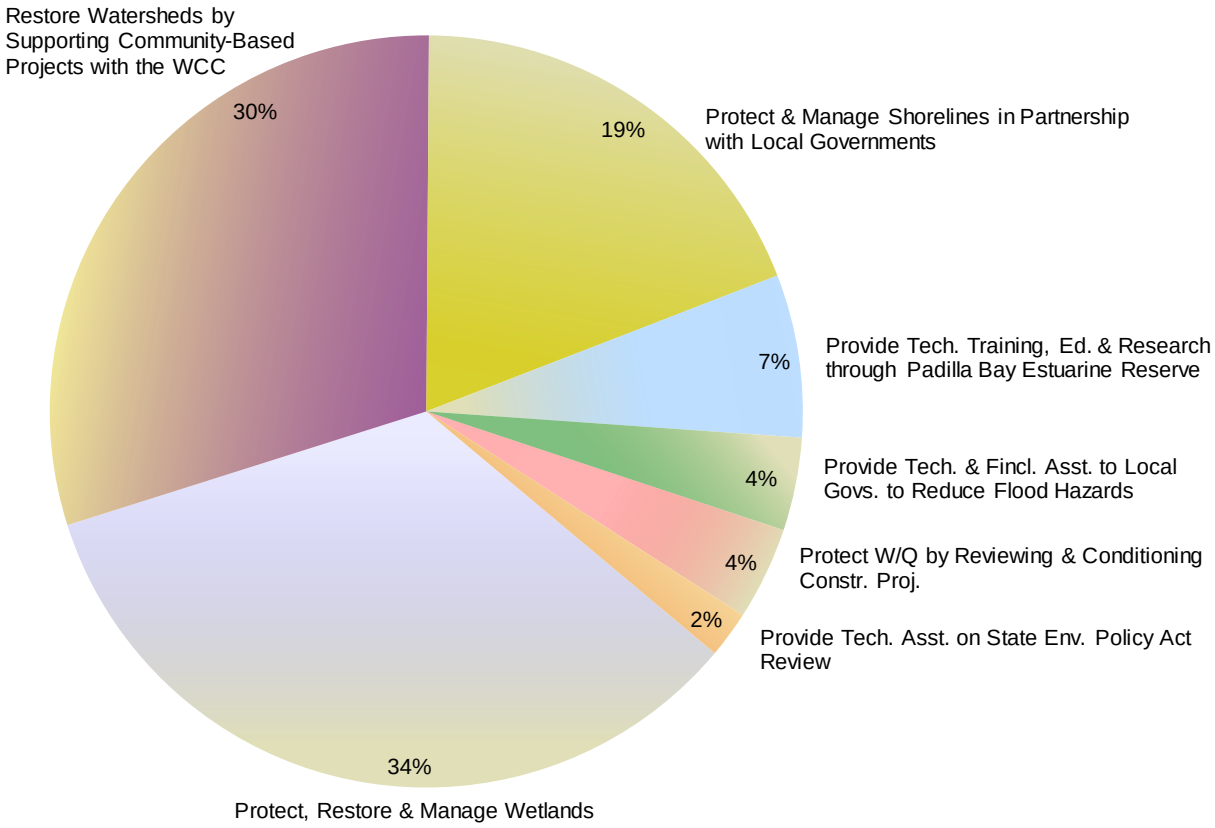
- The public has input into projects that may have environmental impact.
- Local governments and state agencies get technical assistance on how to apply SEPA in their communities.
- Local and state decision makers use the SEPA process to analyze and mitigate environmental impacts of proposals.

Performance Measures

- Number of State Environmental Policy Act workshops provided.
- Percentage of State Environmental Policy Act workshop participants who said they intend to apply what they learned in their

Shorelands & Environmental Assistance Program 2019-21 Biennium Budget by Activities

Operating = $71.1 Million | Capital = $178.3 Million | Total = $249.4 Million | FTEs = 169.8

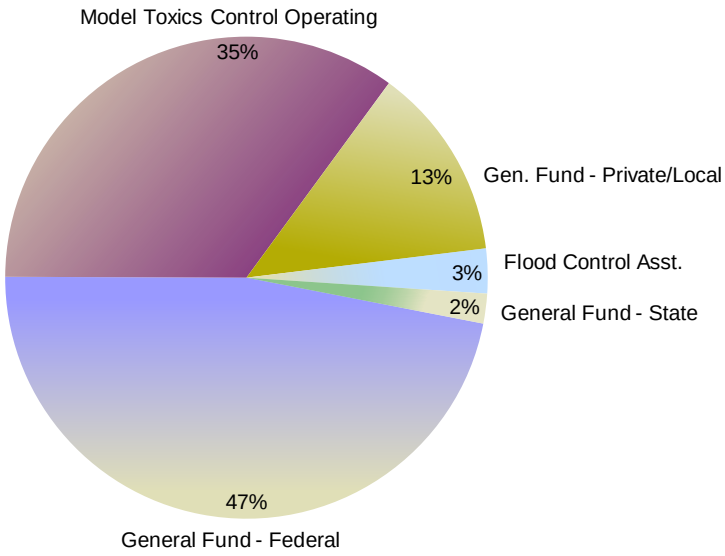


Activities	Amount	%	FTEs
Protect, Restore & Manage Wetlands (A038)	$24,318,000	34%	29.1
Restore Watersheds by Supporting Community-Based Projects with the Washington Conservation Corps (A056)	20,978,000	30%	57.8
Protect & Manage Shorelines in Partnership with Local Governments (A036)	13,622,000	19%	37.6
Provide Technical Training, Education & Research through Padilla Bay Estuarine Reserve (A042)	5,273,000	7%	17.5
Provide Technical & Financial Assistance to Local Governments to Reduce Flood Hazards (A040)	2,755,000	4%	8.0
Protect Water Quality by Reviewing & Conditioning Construction Projects (A037)	2,497,000	4%	13.7
Provide Technical Assistance on State Environmental Policy Act (SEPA) Review (A041)	1,622,000	2%	6.1
Shorelands & Environmental Assistance Operating Budget Total	**$71,065,000**	**100%**	**169.8**

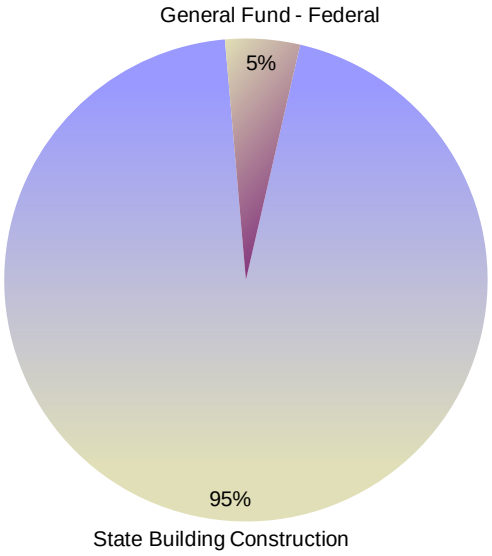
Shorelands & Environmental Assistance Program 2019-21 Biennium Budget by Fund Source

Operating = $71.1 Million | Capital = $178.3 Million | Total = $249.4 Million | FTEs = 169.8

Operating



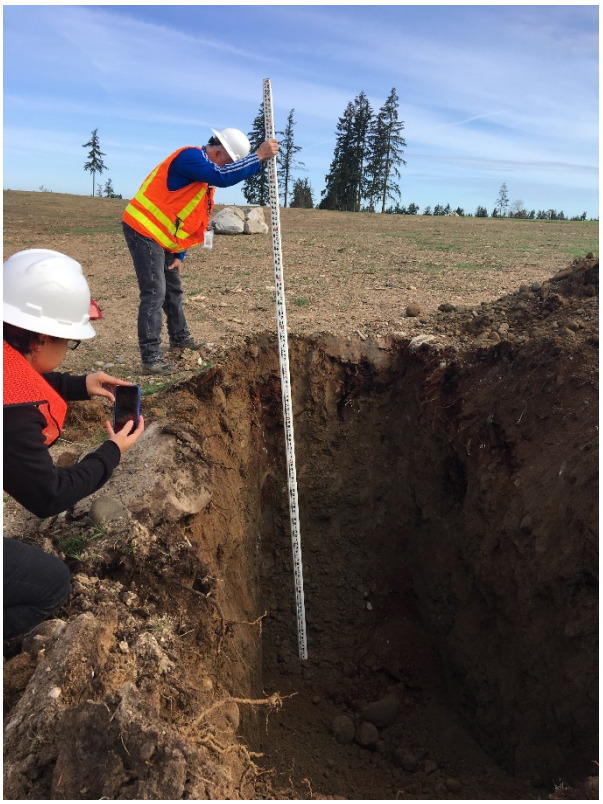
Capital



Operating Fund Sources	Amount	%	Uses
General Fund – Federal (001)	$33,238,000	47%	Primary grant: National Oceanic and Atmospheric Administration Coastal Zone Management (Padilla Bay operations, Shoreline planning, implementation, enforcement, water quality certifications, and technical/financial assistance to local governments). U.S. EPA grants for wetlands and Puget Sound. Federal grant for coastal erosion. Washington Conservation Corp activities. FEMA flood management federal grant. EPA Performance Partnership Grant for water quality certifications. FEMA Floodplain Map Modernization Grant.
Model Toxics Control Operating (23P)	24,556,000	35%	Partial match for Washington Conservation Corps crews performing natural resource restoration projects with federal, state, and local agency sponsors. Match for federal Coastal Zone Management. Washington State Department of Transportation permitting. Water quality certifications for water-related construction projects, including dredging. Ocean policy review. Wetlands banking and environmental mitigation. Wetlands technical assistance. Local government financial assistance to update their Shoreline Master Programs. Staff to provide technical assistance to local governments updating local master shoreline programs and updating wetland protection standards in local critical area ordinances. Shoreline management planning, implementation, enforcement. Wetlands protection and Puget Sound Agenda implementation requirements.
General Fund – Private/Local (001)	9,175,000	13%	Coastal erosion. Permit and project reviews. Padilla Bay. Washington Conservation Corps.

Shorelands & Environmental Assistance Program

Operating Fund Sources	Amount	%	Uses
Flood Control Assistance (02P)	2,384,000	3%	Administer Flood Control Assistance Program including state review of local flood hazard management plans, emergency flood response assistance through grants to local governments and through Washington Conservation Corps.
General Fund – State (001)	1,712,000	2%	Northwest Straits commission grants to marine resource committees.
Operating Budget Total	**$71,065,000**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
State Building Construction (057)	$169,618,732	95%	Habitat Mitigation. Floodplain management and control grants. Floodplain by Design. Office of Chehalis Basin.
General Fund – Federal (001)	8,703,288	5%	Breazeale Interpretive Center, Padilla Bay boat shed. Federal grant awards for coastal wetland acquisitions (funds passed through to local entities).
Capital Budget Total	**$178,322,020**	**100%**	
Shorelands & Env. Assistance Operating & Capital Budget Total	**$249,387,020**		



Biosolids specialist Shawnte Greenway (left) and hydrologist Eugene Radcliff (right) perform a site assessment for a proposed biosolids land application site in Thurston County. During the site assessment, soil test pits are excavated and a soil profile is analyzed.

Solid Waste Management Program

Program Mission

The mission of the Solid Waste Management Program is to reduce waste through prevention and reuse; keep toxics out of the environment; and safely manage what remains.

Environmental Threats

Solid waste management in Washington State is based on partnerships. Local governments have primary responsibility for assuring services and facilities are available to safely manage waste within their jurisdictions. State government provides regulations, permit approval, and technical assistance for safe waste handling to ensure contaminants do not reach the environment through groundwater, surface water, or discharges to the air. The state also provides planning guidance and approval and financial assistance. The private sector provides waste and recycling services and owns and operates many of the waste handling, recycling, and disposal facilities.

Chapter 70.95 RCW, Solid Waste Management – Reduction and Recycling, is the primary state law for solid waste management. It establishes waste reduction as the highest priority, followed by recycling, and then safe disposal. Preventing waste in the first place is the smartest, cheapest, and healthiest approach to waste management.

As Washington's population grows, so does the amount of waste it produces, with the character of the waste stream changing over time. New products continue to enter the waste stream that contain toxic materials or valuable resources that are better kept out of landfills and that burden local and state abilities to properly manage them. This has led to product stewardship or take-back laws in Washington for a growing number of hard-to-handle products.

Recycling has been a popular and long-promoted method of reducing impacts of waste. Recycling reduces the need for raw materials, which conserves energy, reduces greenhouse gas emissions, and creates jobs. But, with Chinese markets closing for many recyclables beginning in 2018, the recycling system we have relied on is in crisis. Multipronged efforts are underway to build new domestic markets, clean up our recycling stream, and educate the public to "recycle right."

The news about plastics is increasingly troubling. Many plastics are not easily recycled, and even plastics that are readily recycled have been hard hit by Chinese market shutdowns. Plastics are increasingly prevalent in our environments—from the

micro-plastics found at the tops of mountains to the plastic marine debris filling our oceans. This is leading to a wide variety of legislative bills and policies to try to address the problems.

Organic materials compose 28.5 percent of the waste generated in Washington, according to our 2016 waste characterization study. Of this, 12.7 percent is food waste, with almost half of that estimated to have been edible when thrown away. Wasted food is a huge problem nationwide. It not only wastes food, but it also wastes the water, fertilizers, and fossil fuels used to produce that food, which has significant greenhouse gas impacts. Composting wasted food is not enough—we must not waste so much food to begin with.

Composting or anaerobically digesting inedible food and other organic materials, such as yard waste, compostable paper, and clean wood, is still an important waste management strategy. Turning organics into compost or biochar—instead of landfilling them— creates valuable soil amendments that provide nutrients to plants, holds moisture in soils, and sequesters carbon. Creating bioenergy and biofuels promotes economic vitality in growing industries.

Biosolids, the end-result of the wastewater treatment process, are also a valuable resource. They contain important nutrients for plant growth and soil fertility, improve soil structure and moisture-holding capacity, and can substitute for chemical fertilizers. Ecology oversees the state's biosolids program. We develop standards and permit wastewater treatment plants, beneficial use facilities, septage management facilities, and compost facilities that use biosolids as feedstocks. Ecology enforces requirements for proper handling, quality standards, and rates at which biosolids are applied to the land.

Major industries in the state, such as pulp and paper, aluminum smelting, and oil refineries, have the potential to significantly affect the environment. Washington's industries want a level playing field, clear permit conditions, and reliable communication with regulators. Ecology's Industrial Section provides industries with a single point of contact for improved environmental permitting, compliance, and technical assistance to help industries minimize their impacts to our air, land, and water.

Authorizing Laws

- *Chapter 49.70 RCW, Worker and Community Right-to-Know Act*
- *Chapter 70.93 RCW, Waste Reduction, Recycling, and Model Litter Control Act*
- *Chapter 70.94 RCW, Washington Clean Air Act*
- *Chapter 70.95 RCW, Solid Waste Management – Reduction and Recycling*
- *Chapter 70.95C RCW, Waste Reduction*
- *Chapter 70.95D RCW, Solid Waste Incinerator and Landfill Operators*
- *Chapter 70.95F RCW, Labeling of Plastics*
- *Chapter 70.95I RCW, Used Oil Recycling*
- *Chapter 70.95J RCW, Municipal Sewage Sludge – Biosolids*
- *Chapter 70.95M RCW, Mercury*
- *Chapter 70.95N RCW, Electronic Product Recycling*
- *Chapter 70.105 RCW, Hazardous Waste Management*
- *Chapter 70.105D RCW, Hazardous Waste Clean Up – Model Toxics Control Act*
- *Chapter 70.132 RCW, Beverage Containers*
- *Chapter 70.138 RCW, Incinerator Ash Residue*
- *Chapter 70.275 RCW, Mercury-containing Lights – Proper Disposal*
- *Chapter 70.355 RCW, Photovoltaic Module Stewardship and Takeback Program*
- *Chapter 70.370 RCW, Recycling Development Center*
- *Chapter 70.375 RCW, Architectural Paint Stewardship Program*

- *Chapter 70.380 RCW, Plastic Packaging – Evaluation and Assessment*
- *Chapter 90.48 RCW, Water Pollution Control Act*
- *Chapter 90.52 RCW, Pollution Disclosure Act of 1971*

Constituents/Interested Parties

- *Federal, state, and local governments.*
- *Environmental organizations.*
- *Businesses, including consumer goods companies and packagers.*
- *General public.*
- *Solid waste and recycling companies.*

Issues

Waste Reduction, Recycling, and Litter Control Account Restored for the 2019-21 Biennium

The 2019-21 Operating Budget restored most of the funding in the Waste Reduction, Recycling, and Litter Control Account (WRRLCA) to Ecology, for the first time since the economic recession began in 2008. In addition to returning our litter prevention program and litter survey and increasing funds for litter pickup, we have three new laws to implement with restored WRRLCA funding. These are the Recycling Development Center (Chapter 70.370 RCW), Plastic Packaging Evaluation and Assessment (Chapter 70.380 RCW), and Food Waste Reduction (RCW 70.95.815).

The Sustainable Recycling Act that created the Recycling Development Center (HB 1543) also changed the funding distribution of the WRRLCA. The 50 percent allocation for litter prevention and pickup using youth crews and state agencies was reduced to 40 percent. The 30 percent share used by Ecology for waste reduction and recycling programs has increased to 40 percent to provide funding for the new Recycling Development Center and other efforts to address the Chinese recycling market shutdowns. The 20 percent allocation to local governments and for competitive grants is unchanged.

Preventing and Cleaning Up Litter with Restored Funding

After a decade of funding reductions, the restored funding will allow Ecology to do high priority work in litter prevention and pickup and waste reduction and recycling. With restored funding, we will increase litter pick-up programs, bring back the litter prevention campaign, perform a litter survey, and provide more grant funding to local governments and non-profit organizations. In the 2019-21 Biennium, we will also:

- Update and restore elements of the litter prevention activities, including a litter hotline, with a new a mobile phone litter application where residents can report observed littering. When this campaign was in place, we saw a 24 percent reduction in litter.
- Provide funding through an inter-agency agreement for Washington State Patrol's emphasis on secured load requirements, helping to ensure Washington motorists secure dangerous loads of material before driving on state highways.
- Perform a litter survey for the first time since 2004. The litter survey provides baseline information about the distribution, types and amount of litter in the state. This data allows us to plan effective programs, measure success, and identify the type and amount of items littered on Washington's highways.
- Hire 300 Ecology Youth Corps and increase efforts with adult crews.
- Provide funding to 37 local government partners in the Community Litter Cleanup Program for litter pickup on county roads and support them with tools and trucks where needed.
- Provide funding to state agency partners, including departments of Natural Resources, Fish and Wildlife and

Transportation, for recycling and litter pickup efforts.

Waste Prevention and Recycling Work with Restored Funding

Ecology works on many different issues that deal with waste prevention and recycling. With the restored WRRLCA funding, we will be able to increase our work. After a decade of absence, we will bring back the School Awards Program, which will recognize and encourage exceptional waste reduction and recycling efforts in schools.

Ecology will continue and increase funding for the competitive grant program authorized by the Legislature in 2015. This program provides grants to local governments and nongovernmental organizations for education on litter prevention and waste reduction and recycling, including food waste reduction and reducing contamination in recycling.

We will also use restored funding to implement the new laws on recycling, plastics, and food waste and provide technical assistance on a variety of waste issues.

Recycling Markets

In 2018, China shut off most markets for recyclable materials and set strict new contamination requirements of 0.5 percent for the few materials they would continue to take. This level is nearly impossible for current recycling systems to meet. Mixed waste paper and plastics were hardest hit by these changes. The Chinese market shutdown has led to a re-evaluation of the entire recycling system in the Northwest and beyond.

Ecology was asked to create agency-request legislation for the 2019 Legislative Session to help address this situation. House Bill 1543, now Chapter 70.370 RCW, establishes the creation of a Recycling Market Development Center at Ecology, in coordination with Department of Commerce. New staff will run the center to research, incentivize, and develop new markets and expand existing markets for recycled commodities and recycling facilities.

The new law also requires the state and local governments with more than 25,000 in population to develop and implement Contamination Reduction Outreach Plans (CROPs), with local governments being able to use the state CROP if they choose.

Ecology had been working on addressing contamination in commingled curbside recycling for the past decade. With the closure of Chinese end-markets for a majority of recycled materials, the focus on this issue has grown. Ecology created a recycling steering committee, with representatives from recycling and packaging industries, to direct our response to the market crisis. In 2019, Ecology also created and ran a "Recycle Right" campaign to bring attention to common contamination sources. This campaign will continue in this biennium and be coordinated with the required state contamination reduction and outreach plan.

Plastics

The concerns about plastics are growing—almost as fast as the amount of plastics in our environment. That is why there were six bills introduced in the 2019 Legislative Session to address plastics, including bag bans, straw bans, and plastic packaging product stewardship. The Legislature passed E2SSB 5397, now Chapter 70.380 RCW, which requires Ecology to hire an independent contractor to perform a plastic packaging evaluation and assessment. The goal is to develop options to reduce plastic packaging in the waste stream that include producer involvement.

Food Waste

National organizations estimate that 30 to 40 percent of all food grown is wasted. If food

waste were a county, it would be the third largest greenhouse gas emitter in the world. To help reduce food waste, House Bill 1114, now RCW 70.95.815, set a goal to reduce food waste 50 percent by 2030.It requires Ecology, working with Departments of Health and Agriculture, to create a food waste plan to help meet this goal. Ecology is also engaged with the Pacific Coast Collaborative to reduce wasted food. One strategy already in play is creating voluntary agreements with food retailers and manufacturers to reduce food waste across the entire coastal region.

Compost Emissions and other Challenges

Composting organic materials, such as yard debris, wood waste, and inedible food, continues to be an important management strategy for this large portion of our waste stream. But, this alternative to disposal has challenges, which include odor and air emissions controls at compost facilities. Ecology is working with Washington State University to study and address this issue. We also continue to provide technical assistance to jurisdictional health districts (JHDs) and compost facility owners and operators on other challenges, including contamination in compost and concerns about spreading the apple maggot into pest-free areas when transporting compostable materials.

Local Solid Waste Financial Assistance for Local Governments

These pass-through grants to local governments support essential programs that implement local solid and hazardous waste plans and regulatory programs. Local solid and hazardous waste plans are required under Chapters 70.95 RCW and 70.105 RCW. Implementing these plans helps protect human health and the environment and provides guidance for local responsibility in properly managing solid and hazardous waste. Financial assistance is used for planning, regulating solid waste facilities, reducing human exposure to toxics by providing safe collection of household hazardous wastes, and supporting resource conservation through recycling and reuse programs.

The availability and amount of funding for Local Solid Waste Financial Assistance (LSWFA) grants depends on legislative appropriations. For the 2015-17 Biennium, Ecology requested $29.6 million, but was only appropriated $15 million. For the 2017-19 Biennium, Ecology requested $28.2 million, but only $10 million was appropriated in the capital budget. For the 2019-21 Biennium, Ecology again requested $28.2 million, and again only $10 million was appropriated; this time in the operating budget. These reductions have significantly impacted local governments' ability to fully manage solid and hazardous waste around the state. Programs for safely collecting household hazardous waste, recycling, composting, monitoring compliance at solid waste facilities, and other solid waste enforcement activities have been reduced or suspended.

Technical Assistance at Solid Waste Facilities

Ecology engineers, hydrogeologists, and facility specialists are funded through the Model Toxics Control Act (MTCA) operating account. These positions provide technical assistance to local jurisdictional health departments and solid waste facility owners and operators. As local governments face reduced resources, they increasingly rely on Ecology for technical review assistance for facility designs, operations, permits, and regulatory interpretation. Ecology also manages MTCA cleanup at solid waste landfills in several counties throughout the state.

Implement New and Existing Producer Responsibility Programs.

Producer responsibility or product stewardship programs require manufacturers

who make products to take some degree of responsibility for managing them at end-of-life. This helps reduce the financial burdens on local governments to manage hard-to-handle products and provides more convenient collection options for the public. The new paint stewardship law, Chapter 70.375 RCW, resulted in Ecology now having four producer responsibility laws:

Paint

After many years and multiple tries, a paint product stewardship bill (HB 1652) passed in the 2019 Legislative Session and is now law. Washington is the ninth state to adopt this program, which is expected to be run by PaintCare, a producer-responsibility organization. The program is required to be operational by November 2020.

Paint is one of the most common materials brought to local government household hazardous waste facilities. Many have stopped taking latex paint due to the expense of disposal and recycling and the fact that it is not toxic. Under the new program, paint retailers will accept unwanted paint, so the public will have more convenient options for recycling.

Photovoltaic Modules

The photovoltaic modules (solar panels) producer-responsibility program was created by the Legislature in 2017. Ecology was tasked with implementing a stakeholder process to develop guidance for solar panel manufacturers to create a collection and recycling program. The guidance document was completed in July 2019. Ecology's other duties include approving manufacturer program plans for how they will collect and recycle used solar panels (plans are due January 2020), enforcement on manufacturers who fail to participate in a stewardship program (beginning January 2021), and reviewing annual program reports (beginning April 2022).

Mercury-Containing Lights

LightRecycle Washington, for mercury-containing lights, is run by PCA Product Stewardship, Inc. (PCA) to help keep toxic mercury out of the environment. Since the program started in January 2015, more than 5.2 million lights have been collected for recycling.

The program is funded by an environmental handling charge (EHC) for each mercury-containing light sold at retail in or into Washington State. The EHC started at 25 cents, was raised to 50 cents, and is now at 95 cents. Fewer compact fluorescent lights (CFLs) are being sold. This is due in part to the decreasing cost and increasing popularity of LED lights, which do not carry the surcharge. This has made the program more challenging to fund and implement. Many CFLs and other mercury-containing lights are still in use and will need to be recycled and processed when they burn out in the future. Ecology and PCA will be exploring other funding options for the future.

Electronics

E-Cycle Washington, the successful product stewardship program for computers, monitors, and TVs, is approaching its 11th year. The program has collected more than 400 million pounds of covered products since it started. The amount of products collected through the program, as measured by weight, has decreased slightly in the past few years. The public routinely requests the program accept more electronic items, such as printers, keyboards, gaming systems, and other peripherals. In 2015, Ecology worked with stakeholders to consider adding these items to the law. To date, no agreement has been reached, but requests from the public continue.

The State Solid and Hazardous Waste Plan: Moving Washington Beyond Waste and Toxics

The state of Washington is required by law to have a solid and hazardous waste plan and to update it regularly. The plan's purpose is to guide waste and toxics reduction and safe waste management in the state.

The state plan has a sustainable materials management focus. This means looking at the full lifecycle of materials, from the design and manufacturing phase, through the use phase, to the end-of-life phase, when the material is either disposed of or recycled. This is important because the adverse environmental impacts of extraction, production, and use can be far greater than those associated with disposal when a material becomes a waste. Looking at the production and use phases can help identify more sustainable ways to design products that use less energy, water, toxics, and create less waste and pollution.

Ecology is working on the five-year plan update, while continuing to implement the current plan.

Biosolids and Septage

Wastewater treatment facilities in Washington have beneficially used biosolids for more than 40 years. The statewide general permit for biosolids management issued by Ecology in 2015 expires in September 2020. For the next permit cycle, Ecology is considering creating multiple permits with different focuses to more closely meet the needs of the different facility types. This should also improve the speed of final approval of coverage for applicants.

Emerging concerns with biosolids includes micro-plastics and PFAS (per- and poly-fluoroalkyl substances). Biosolids are identified in Ecology's draft PFAS Chemical Action Plan. Because PFAS and micro-plastics are ubiquitous, they are found in sewage, wastewater effluent, and biosolids. We need to do more research to determine whether additional regulation in biosolids is merited, but funding was not available for this in the 2019-21 Biennium.

Industrial Redevelopment

Ecology works with Washington's largest refineries, pulp and paper mills, and aluminum smelters. When industries close after decades of operation, there are often residual chemical contamination issues that must be addressed. Since these facilities are usually in prime locations with access to water, transportation, rail, and power transmission infrastructure, they are in demand for redevelopment.

An example is the former Reynolds Metals aluminum smelter in Longview. This facility produced high-purity aluminum for almost 60 years and left behind residual soil and groundwater contamination. Millennium Bulk Terminals purchased the operations in 2011, and they are currently operating a bulk marine terminal.

Ecology is working with the landowner, Northwest Alloys (Alcoa), and Millennium to clean up contamination from the former smelter. Millennium and Northwest Alloys completed a sediment cleanup in 2016 and signed the Consent Decree in December 2018 to implement the final cleanup action plan. Industrial wastes on the site will be consolidated and capped to optimize the area available for redevelopment, and groundwater contamination will be addressed. Comprehensive monitoring, together with a robust financial assurance program, will ensure the cleanup actions remain effective over the long term.

Under the cleanup agreement, remediation work is slated to take place over the next two-to-three years, pending the necessary permits being in place. When complete, this site will again be positioned to play a key role in the local economy and ensure that human health and the environment are protected.

Activities, Results, and Performance Measures

Eliminate Waste and Promote Material Reuse

The Department of Ecology:

- Provides technical assistance to local governments for waste reduction and recycling, including focus on reducing contamination, addressing plastic packaging, and developing marketing programs for recycled commodities.
- Reduces wasted food through a state food waste reduction and diversion plan.
- Provides technical assistance to promote reuse of organic materials.
- Ensures an environmentally compliant biosolids program in the state.
- Advises state and local governments on how to promote environmentally preferred purchasing.
- Oversees producer managed recycling programs.

Expected Results

- The amount of solid waste generated and disposed of by businesses and residents decreases so that air, water, and greenhouse gas pollution is reduced and resources are conserved.
- The amount of materials recovered for recycling, composting, and other uses increases so fewer valuable materials enter the waste stream, there is less waste for disposal, and greenhouse gas emissions are reduced. Materials include recyclables, organic matter, compost, biosolids, electronics, and mercury-containing lights.

Performance Measures

- Pounds of solid waste disposed annually per person by residents and businesses.
- Tons of electronics collected for recycling through E-Cycle Washington.
- Pounds of solid waste generated per dollar (State GDP).
- Tons of organic material recovered for composting and other uses.
- Tons of mercury-containing lights collected for recycling through LightRecycle Washington.
- Percentage of biosolids beneficially used annually.
- Percentage of materials recycled and recovered for energy annually.

Provide Planning and Financial Assistance to Manage and Reduce Waste

The Department of Ecology provides planning assistance to local governments and financial assistance through three grant programs:

- Local Solid Waste Financial Assistance (LSWFA) grants to local governments for solid waste planning, waste reduction (including food waste), recycling (including contamination reduction), household hazardous waste, and enforcement.
- Public Participation Grants (PPG) to interest groups for informing residents about cleanups in their local area and educating the public about waste reduction efforts.
- Waste Reduction and Recycling Education (WRRED) grants to local governments and non-profit organizations to educate the public about litter control, waste reduction (including food waste), recycling (including contamination reduction), and composting.

Expected Results

Ecology's solid waste grants and planning assistance help ensure that:

- Use of recycling and composting increases.
- Use of toxic products and generation of waste declines.
- Moderate-risk waste is collected and handled safely.

- Solid waste facilities in Washington State comply with regulatory standards.
- Illegal dumps are reduced.
- Groundwater is protected from improperly disposed waste.
- Cleanup investigations have support and input from affected residents.
- The public is provided information on environmental issues and proposed solutions to help reduce litter and waste, and increase quality recycling, and composting.
- The amount of solid waste generated is decreased.
- The percentage of materials recovered for recycling and composting is increased.
- The amount of moderate-risk waste recycled or properly disposed is increased.

Performance Measures

- Millions of tons of solid waste generated annually.
- Percentage of materials recycled and recovered for energy annually.
- Pounds of household and small quantity generator hazardous wastes that are recycled or properly disposed (in millions)
- Tons of organic material recovered for composting and other uses.

Prevent and Pick Up Litter

The Department of Ecology collaborates with residents, businesses, local governments, and state agency partners to maximize efforts to prevent and pick up litter to keep Washington clean for residents and visitors. Ecology also sponsors youth employment programs for litter pickup.

Expected Results

- Littered roadways and illegal dumps are cleaned up in coordination with local government and state agency partners and the Ecology Youth Corps.
- Litter prevention efforts contribute to less litter created.
- Washington is clean for residents and visitors.
- Use of available resources is maximized by all partners.

Performance Measures

- Pounds of litter picked up annually.
- Miles of roadway cleared of litter using Ecology-funded crews.

Manage Solid Waste Safely

To ensure that solid waste handling and disposal facilities are in compliance with environmental requirements, Ecology:

- Sets standards for the proper handling and disposal of solid waste.
- Negotiates and implements cleanup orders under the Model Toxics Control Act and oversees cleanup actions at solid waste facilities.
- Provides technical assistance, permit review, and regulatory, engineering, and hydrogeology expertise to local health departments who permit solid waste handling and disposal facilities.

Expected Results

- Solid waste is managed and disposed of in facilities that comply with federal, state, and local requirements.
- Solid waste handling and disposal practices minimize contamination to the state's groundwater, surface water, and air.
- Technical assistance is provided to health departments responsible for ensuring facilities comply with environmental rules.

Performance Measures

- Percentage of landfills in compliance with applicable state regulations.
- Millions of tons of solid waste generated annually.

- Pounds of household and small quantity generator hazardous wastes that are recycled or properly disposed (in millions).
- Percentage of regulated solid waste facilities completing annual reports.

Improve Environmental Compliance at the State's Largest Industrial Facilities

The Department of Ecology provides a single point of contact for compliance reviews and technical assistance for petroleum refineries, pulp and paper mills, and aluminum smelters so they have consistent regulatory oversight.

Expected Results

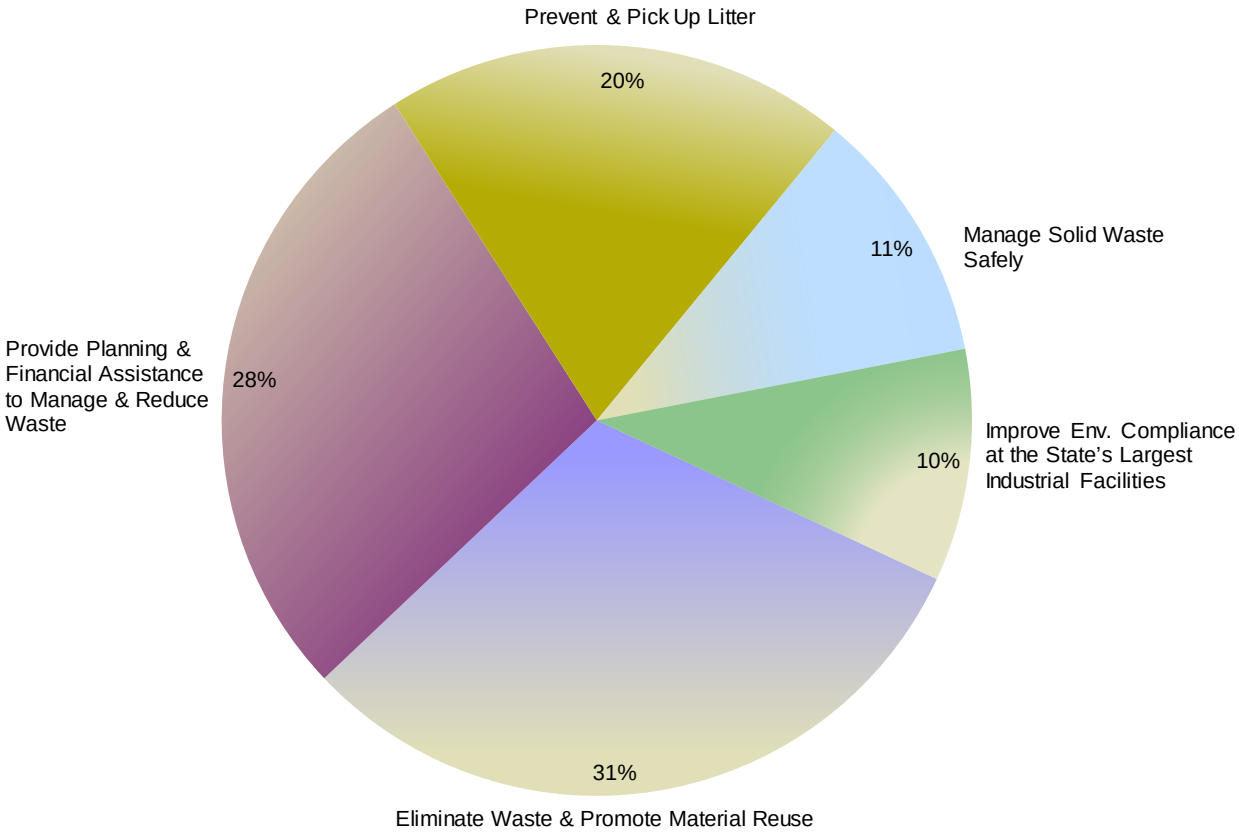
- Pulp and paper mills, oil refineries, and aluminum smelters improve compliance rates through one stop environmental permitting, compliance review, technical assistance, and timely issuance of environmental permits.
- Updated permits will ensure that industries are meeting new state and federal requirements in a timely way.

Performance Measure

- Percentage of industrial section permits that meet timeliness goals.

Solid Waste Management Program 2019-21 Biennium Budget by Activities

Operating = $55.3 Million | Capital = $4.0 Million | Total = $59.3 Million | FTEs = 125.6

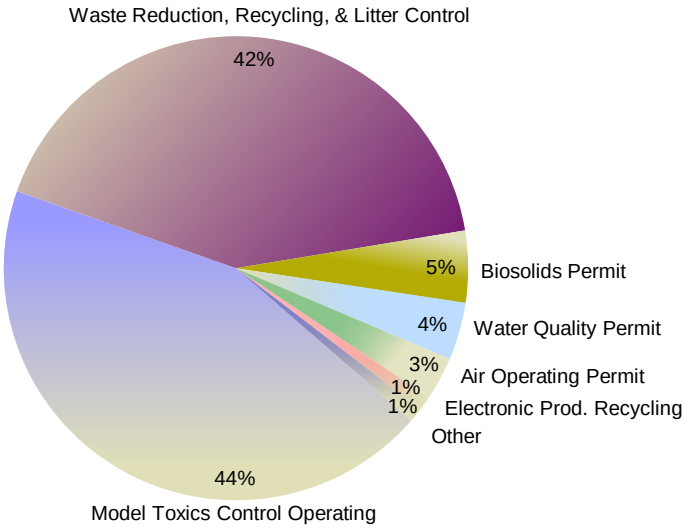


Activities	Amount	%	FTEs
Eliminate Waste & Promote Material Reuse (A009)	$17,287,000	31%	45.5
Provide Planning and Financial Assistance to Manage and Reduce Waste (A013)	15,424,000	28%	10.9
Prevent & Pick Up Litter (A010)	11,117,000	20%	24.6
Manage Solid Waste Safely (A064)	6,156,000	11%	24.0
Improve Environmental Compliance at the State's Largest Industrial Facilities (A028)	5,300,000	10%	20.6
Solid Waste Management Operating Budget Total	**$55,284,000**	**100%**	**125.6**

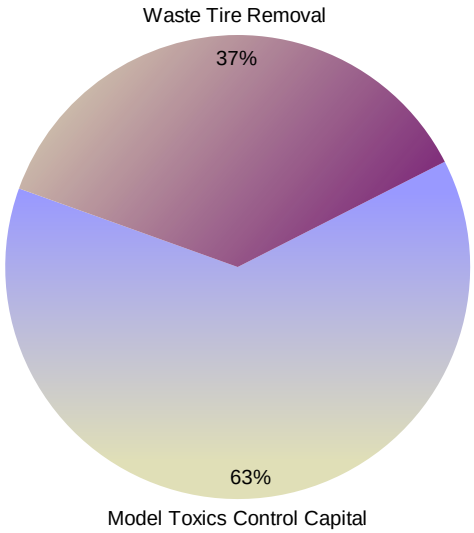
Solid Waste Management Program 2019-21 Biennium Budget by Fund Source

Operating = $55.3 Million | Capital = $4.0 Million | Total = 59.3 Million | FTEs = 125.6

Operating



Capital



Operating Fund Sources	Amount	%	Uses
Model Toxics Control Operating (23P)	$24,035,000	44%	Provide engineering and hydrogeologic support to local health departments; regulatory compliance assistance; industrial dangerous waste and cleanup activities. Provide planning and technical assistance to local governments related to solid waste implementation and enforcement. Provide technical assistance to local government to implement and regulate local hazardous waste facilities and to implement the state's solid and hazardous waste management priorities. Provide public participation grants to resident groups and non-profit public interest organizations to facilitate public participation in the investigation and remediation of contaminated sites.
Waste Reduction, Recycling, & Litter Control (044)	23,405,000	42%	Support the Ecology Youth Corps and other state agencies for litter pickup and prevention activities (40%); technical assistance in waste reduction and recycling, and recycling development center (40%); pass-through grants for litter pickup and waste reduction and recycling education to local governments and nonprofit organizations (20%).
Biosolids Permit (199)	2,503,000	5%	Administer permit applications, review related plans and documents, monitor, evaluate, conduct inspections, oversee performance of delegated program elements, provide technical assistance, and support overhead expenses that are directly related to these activities.
Water Quality Permit (176)	2,413,000	4%	Industrial water quality permitting, inspections, and sediment source control. Data management and public involvement related to water quality at regulated industries.
Air Operating Permit (219)	1,421,000	3%	Industrial air quality permitting, inspections, and enforcement of Title 5 permits.

Operating Fund Sources	Amount	%	Uses
Electronic Products Recycling (11J)	770,000	1%	Administer manufacturer registration fee collections, as well as monitor, evaluate, and implement the regulations adopted for the EPR program.
Other:			
Product Stewardship Programs (16T)	229,000	<1%	Administer mercury-containing lights collection and recovery program; review and approve plans and plan revisions; monitor and evaluate program operations and implement the regulations.
General Fund – State (001)	208,000	<1%	Water quality and biosolids permit enforcement actions. Disaster debris management.
Paint Product Stewardship (23W)	167,000	<1%	Administer paint collection and recycling program; review and approve plans.
Photovoltaic Module Recycling (22G)	74,000	<1%	Administer manufacturer-funded photovoltaic module recycling program; review and approve plans.
General Fund – Private/Local (001)	50,000	<1%	Appropriation authority for potential projects with local communities.
Pension Funding Stabilization (489)	9,000	<1%	Payment of employer retirement contributions for staff funded by GF-State.
Operating Budget Total	**$55,284,000**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
Model Toxics Control Capital (23N)	$2,522,771	63%	Appropriation authority for the Lilyblad site cleanup project.
Waste Tire Removal (08R)	1,476,793	37%	Appropriation authority for statewide waste tire pile cleanup and prevention activities.
Capital Budget Total	**$3,999,564**	**100%**	
Solid Waste Management Operating & Capital Budget Total	**$59,283,564**		

Preparedness planner Darcy Bird surveys Samish Bay ecosystems at risk from oil spills. The airboat used for this work was purchased by the Washington Department of Fish and Wildlife with funds from the Spills Program's equipment grants.

Spill Prevention, Preparedness & Response Program

Program Mission

The mission of the Spill Prevention, Preparedness, and Response Program (Spills Program) is to protect, preserve, and restore Washington's environment. The program focuses on preventing oil spills to Washington's waters and land, and planning for and delivering a rapid, aggressive, and well-coordinated response to oil and hazardous substance spills wherever they occur.

Environmental Threats

More than 20 billion gallons of oil and hazardous materials are transported through Washington State each year by vessel, pipeline, and rail. Human error, equipment failure, and natural disasters can lead to releases of these materials with potentially disastrous consequences. Oil and chemical spills threaten Washington's valuable natural resources.

Over the years, the nature of these threats has changed due to changes in oil markets and technological innovations. These threats—whether on land or water—endanger public health, safety, and the environment and can damage the state's economy and quality of life.

Authorizing Laws

The harm caused by major oil spills and other toxic releases in the 1980s and early 1990s sparked public concern and resulted in passage of state and federal legislation, including:

- *Northwest Area Contingency Plan (NWACP), Pursuant to Federal Oil Pollution Act of 1990*
- *Ports and Tanker Safety Act of 1978, and its Amendments to the Ports and Waterways Safety Act of 1972*
- *Chapter 70.105 RCW, Hazardous Waste Management Act*
- *Chapter 70.105D RCW, Model Toxics Control Act*
- *Chapter 82.23B RCW, Oil Spill Response Tax*
- *Chapter 88.40 RCW, Transport of Petroleum Products – Financial Responsibility*
- *Chapter 88.46 RCW, Vessel Oil Spill Prevention and Response*
- *Chapter 90.48 RCW, Water Pollution Control (includes early legislation from the 1970s)*
- *Chapter 90.56 RCW, Oil and Hazardous Substance Spill Prevention and Response*

Constituents/Interested Parties

Ecology works closely with organizations and people interested in environmental protection and emergency response, including:

- *Federal, state, local, and tribal governments, including the U.S. Coast Guard, U.S.*

Environmental Protection Agency, U.S. Army Corps of Engineers, and local emergency management agencies.
- *City, county, and regional fire, police, health, and planning departments.*
- *The governments of British Columbia, Oregon, Idaho, and other West Coast states.*
- *Commercial vessel owners and operators worldwide, marine transportation trade associations, public ports, and maritime trade unions.*
- *Oil refineries, marine oil terminals, oil pipelines, rail companies, and oil trucking companies.*
- *Spill response cooperatives and contractors.*
- *Advisory councils, environmental organizations, and the general public.*

Issues

The Spills Program takes pride in adapting to shifting economic trends, legislative direction, and public demands. Our core services include vessel and facility inspections, oil transfer monitoring, risk modeling, prevention and contingency plan review and approvals, contingency plan drills, environmental restoration, and 24/7 response to oil and hazardous materials spills. Through these services, the Spills Program minimizes the long-term release of toxics into the environment and protects the water, soil, air, and public health of the state.

In addition to our core services, the Spills Program has identified tasks we plan to accomplish in the next two years to address the challenges associated with changing spill risks in Washington State. A comprehensive list of tasks is described in the Spills Program's 2019-2021 Program Plan. These tasks include the following:

Develop a Funding Report by July 1, 2020

The 2018 Legislature passed E2SSB 6269 regarding oil transportation safety. It requires Ecology to provide a report to the Legislature by July 1, 2020. The report will cover activities continuing and ending after Fiscal Year 2019, recommendations on funding sources for the program, recommendations on allocating tax funds to state agencies, and a forecast of future funding needs. We are currently drafting this report and conducting outreach to tribes and stakeholders.

Create a Vessel Traffic Risk Model to Inform Tug Escort Rulemaking

The 2019 Legislature passed ESHB 1578, requiring Ecology to create a vessel traffic risk model that will advise decisions on tug escort and emergency response systems for Puget Sound. The model will inform Ecology's quantitative assessment of whether an emergency response towing vessel serving Haro Strait, Boundary Pass, Rosario Strait, and connected navigable waterways will reduce oil spill risk. The model will also inform the Board of Pilotage Commissioner's analysis of tug escorts. Work in the 2019-21 biennium will focus on:
- Initial model development, with input from stakeholders and tribes.
- Coordination with the Board of Pilotage Commissioners to identify geographic zones.
- Technical assistance for the Board of Pilotage Commissioners on the development of a synopsis of changes in vessel traffic trends.

Update Advance Notice of Transfer Rules for Rail and Pipelines

ESHB 1578 and ESSB 5579 (also passed by the 2019 Legislature) expand and harmonize requirements for reporting information related to bulk oil transfers. The bill includes reporting requirements for region of origin, type of oil, and oil gravity for all transfers by vessel, pipeline, and rail.

In the 2019-21 Biennium, we will update the rules for rail and pipeline transfer.

For rail transfers, reporting parties must also include the vapor pressure of the oil. The

rule for rail transfers will address facility reporting requirements and limitations on vapor pressure of crude oil.

Continue Geographic Response Plan and Contingency Plan Development

The Legislature updated RCW 90.56.240 in 2018 to expand contingency plan requirements for vessels and facilities. These plan holders must now establish access to a more comprehensive spill management team as part of their plan. This will ensure they can call on spill management experts in the event of a significant incident. In turn, those spill management teams are subject to regulation and approval by Ecology. The bill also requires Ecology approval of wildlife response service providers who protect and rehabilitate wildlife threatened or injured by oil spills. We are currently in the process of implementating these requirements.

Changes to RCW 90.56.2101 and 90.56.569 also require that contingency and geographic response plans be updated with details regarding threats from and response capabilities to non-floating oils. These oils are more difficult to recover from the environment, requiring specialized techniques and equipment. These plan updates are currently in process.

Finally, consistent with RCW 90.56.569, Ecology must provide a report to the Legislature by December 31, 2019, on our progress toward creating or updating Geographic Response Plans we have identified as high priorities.

Continue Engaging Tribal and Transboundary Partners

As directed by RCW 88.46.240, Ecology plans the Salish Sea Shared Waters Forum, a venue for exchanging information to enhance oil spill prevention, preparedness, and response measures that minimize the risks and impacts of spills in the Salish Sea. The Forum brings together representatives of all levels of government from both sides of the U.S. – Canada border.

ESHB 1578 added new topics for the 2019 and future Forums, to include impacts of vessel traffic on treaty-protected fishing and options for a shared emergency response system.

Respond to Evolving Cleanup Requirements at Illegal Drug Manufacturing Sites

The Spills Program assists a range of state and federal law enforcement agencies in responding to and cleaning up illegal drug manufacturing facilities in Washington. In recent years, the nature of these facilities has changed rapidly, posing new toxic threats to the public, law enforcement, and our responders. We expect to see this trend continue. To carry out this work safely, we will work with our law enforcement partners to update response procedures and predict future needs.

Activities, Results, and Performance Measures

Rapidly Respond to and Clean Up Oil and Hazardous Material Spills

This activity ensures Ecology and its partners respond to spills in a rapid, aggressive, and well-coordinated manner to ensure impacts to the environment are minimized.

Spill response capability is maintained 24 hours a day and seven days a week, statewide. This includes ensuring the safety of the public and emergency responders, performing cleanup and oversight of cleanup activities, coordinating wildlife rescue and rehabilitation activities, providing timely information to the public and stakeholders about response activities, and implementing protection strategies to minimize impacts to Washington's environmental, cultural, and economic resources.

Enforcement actions are issued based on results of incident investigations.

Expected Results

- Oil spills, hazardous material spills, and clandestine labs are responded to and cleaned up rapidly to protect public health, natural resources, and property.
- All oil spills are responded to within 24 hours from the time they are reported.
- Approximately 4,000 annual spill reports are managed.
- Environmental, cultural, and economic damages resulting from spills are minimized.

Performance Measure

- Percentage of reported incidents that receive field responses.

Prevent Oil Spills from Vessels and Oil Handling Facilities

Ecology works with communities and regulated entities to prevent spills from vessels and oil handling facilities through inspections, review and approval of plans and manuals, technical assistance, incident investigation, and risk assessment work.

Expected Results

- Oil spills from regulated vessels and oil handling facilities are reduced or prevented.
- Oil spills impacting surface waters are reduced or prevented.
- Enrollment in the Exceptional Compliance Program (ECOPRO) is increased.
- Washington's environment, public health, and safety are protected.

Performance Measures

- Number of spills to surface water from all sources.
- Total volume of oil spilled to surface waters from all sources.
- Percentage of potential unique, high-risk vessels inspected.
- Gallons of oil spilled to surface water during an oil transfer for every 100 millions of gallons transferred.
- Percentage of unique, regulated over-water oil operations inspected.
- Total volume of oil spilled to water from regulated facilities and vessels.

Prepare for Aggressive Response to Oil and Hazardous Material Incidents

This activity ensures large commercial vessels, oil handling facilities, and railroad operators that transport oil by rail maintain state approved oil spill contingency plans so they can rapidly and effectively respond to major oil spills. State planning standards ensure response equipment and personnel are strategically staged throughout the state. This work is carried out through staff review and approval of contingency plans, drills that test contingency plans, development of geographic response plans, and maintenance of a regional contingency plan in partnership with other agencies.

Expected Results

- Ecology and the regulated community are fully prepared to promptly respond to oil spills, and damage from spills are minimized.
- Contingency plans are in compliance with regulations and are tested through drills.
- Geographic Response Plans (GRPs) are developed for areas that do not have plans, and existing GRPs are updated and kept current.
- Maintenance of response equipment is documented by industry and records verified by Ecology.
- Washington's environment, public health, and safety are protected.

Performance Measures

- Number of Geographic Response Plans (GRPs) completed.
- Percentage of vessel emergencies reported to Ecology.

Restore Public Natural Resources Damaged by Oil Spills

When spills occur, Ecology provides incident notification to natural resource trustees and responds to the incident to assess impacts, collect samples, and determine the extent of injury to state publicly owned resources. Ecology then leads the interagency Resource Damage Assessment (RDA) Committee to assess damages and seek fair compensation for damages to Washington resources. Ecology works with the RDA Committee and responsible parties in funding, planning, and implementing effective restoration projects to restore impacted resources. Ecology manages the Coastal Protection Fund grant process for restoration work and performs follow-up restoration site visits to ensure they were effective.

Expected Results

- Environmental impacts to publicly-owned natural resources from oil spills are partially mitigated (compensated for) using damage assessment funding.
- Natural resource damage assessment is done on 100 percent of oil spills where 25 or more gallons reach surface waters.
- Priority wildlife habitat is restored and protected.

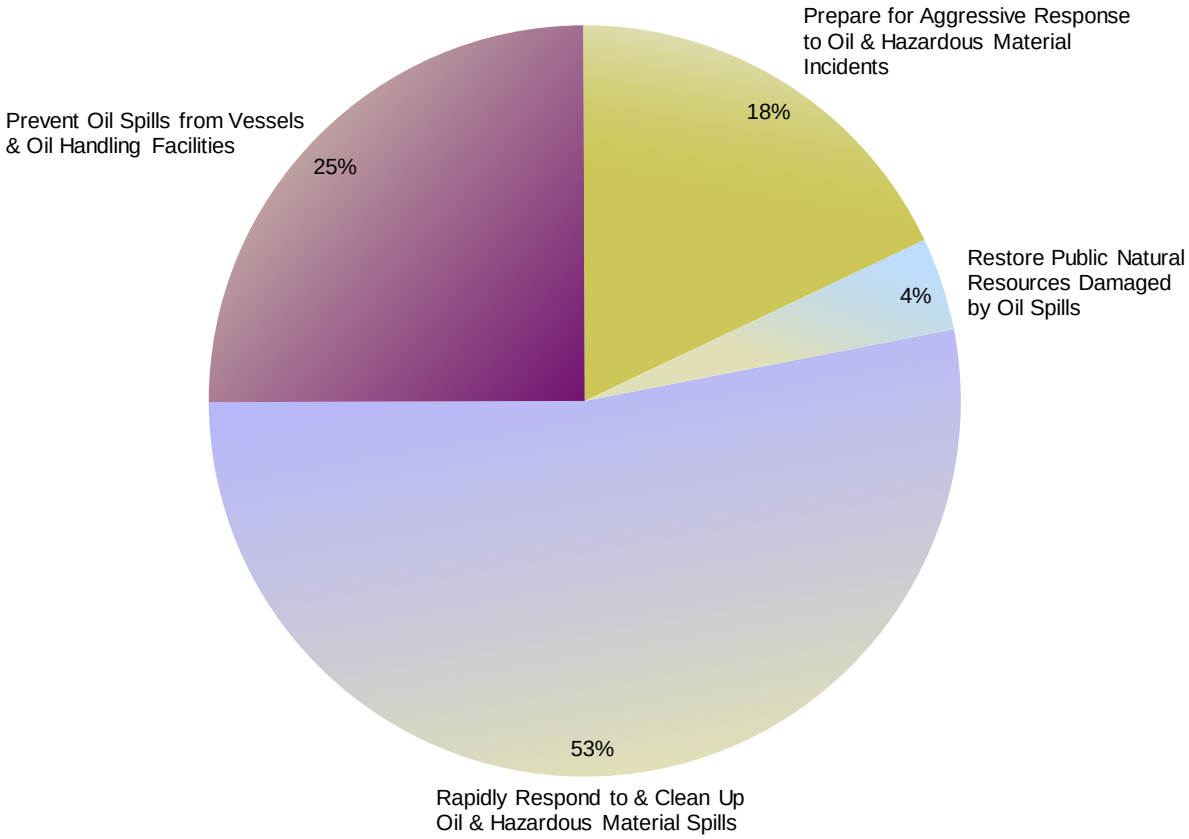
Performance Measure

- Percentage of completed restoration projects that meet plan specifications.

Spill Prevention, Preparedness, and Response Program

Spill Prevention, Preparedness & Response Program 2019-21 Biennium Budget by Activities

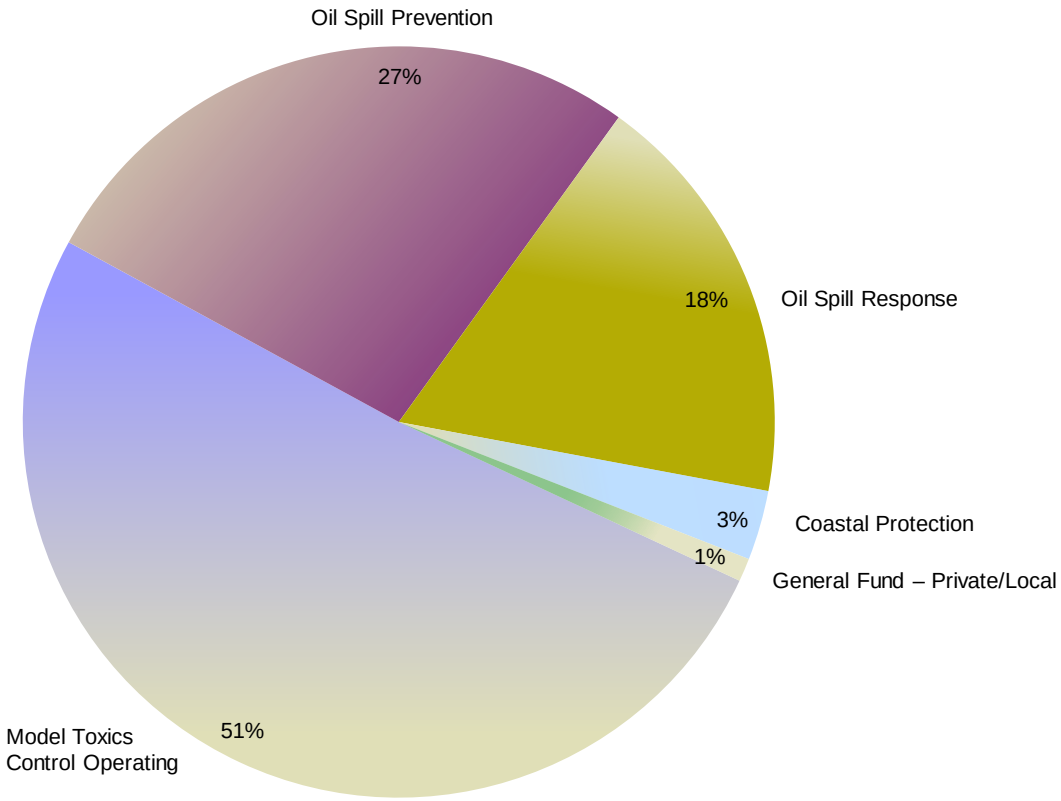
Operating = $38.8 Million | No Capital | Total = $38.8 Million | FTEs = 91.2



Activities	Amount	%	FTEs
Rapidly Respond to & Clean Up Oil & Hazardous Material Spills (A054)	$20,604,000	53%	39.7
Prevent Oil Spills from Vessels & Oil Handling Facilities (A033)	9,507,000	25%	25.8
Prepare for Aggressive Response to Oil & Hazardous Material Incidents (A030)	7,004,000	18%	22.9
Restore Public Natural Resources Damaged by Oil Spills (A055)	1,645,000	4%	2.8
Spill Prevention, Preparedness & Response Operating Budget Total	**$38,760,000**	**100%**	**91.2**

Spill Prevention, Preparedness & Response Program 2019-21 Biennium Budget by Fund Source

Operating = $38.8 Million | No Capital | Total = $38.8 Million | FTEs = 91.2



Operating Fund Sources	Amount	%	Uses
Model Toxics Control Operating (23P)	$19,760,000	51%	Oil spill prevention, preparedness, and hazardous material and oil spill response work including drug lab clean up.
Oil Spill Prevention (217)	10,522,000	27%	Oil spill prevention and preparedness work.
Oil Spill Response (223)	7,076,000	18%	Oil spill cleanup where state response costs are expected to exceed $1,000. Amount is based on appropriation. Actual spending varies depending on qualifying expenditures for oil spill response.
Coastal Protection (408)	1,064,000	3%	Restoration of natural resources damaged by oil spills and non-personnel related oil projects, research, and studies.
General Fund – Private/Local (001)	338,000	1%	British Columbia & Pacific States oil spill task force.
Operating Budget Total	**$38,760,000**	**100%**	
Spill Prev., Prep. & Resp. Operating & Capital Budget Total	**$38,760,000**		

Engineer and cleanup site manager Sam Meng (left) and toxicologist Andy Kallus (right), collect a sediment sample for chemical analysis from a former lumber and shingle mill north of the Port of Everett's Waterfront Place Redevelopment. This initial investigation is to determine if concentrations of chemicals in sediment exceed Ecology's cleanup criteria identified in the Sediment Management Standards.

Toxics Cleanup Program

Program Mission

The mission of the Toxics Cleanup Program is to protect human health and the environment for the people of Washington. We do this by preventing, reducing, or eliminating exposure to contamination, which supports the development of environmentally and economically sustainable communities.

Environmental Threats

Ecology has identified over 13,300 toxics contaminated sites since the mid-1980s. Over 8,800 of these sites resulted from underground storage tanks leaking contents into the environment and contaminating the soil or groundwater. Of the 13,300 contaminated sites, 54 percent (about 7,200) require no further cleanup action, and 30 percent are in the process of being cleaned up.

Contamination at each site is unique and can pose a different type and level of risk to public health and the environment. For example:

- Soils contaminated by arsenic and covering several miles have been discovered in school playgrounds, parks, backyards, and at industrial facilities.
- Fish and shellfish living near chemically contaminated sediments can retain toxins in their systems and expose people to toxins when eaten. Contaminated sediments can also contribute to declining fish populations.
- Contamination can expose people to chemicals in the water they drink and use at home.

We clean up contaminated sites to protect human health and the environment. It's also important to note that restoring contaminated property and putting it back into productive use preserves undeveloped lands, enhances redevelopment, and reduces further declines in state resources, such as fish and shellfish habitat.

Authorizing Laws

- *Chapter 70.105D RCW, Model Toxics Control Act*
- *Chapter 90.48 RCW, Water Pollution Control Act*
- *Chapter 90.71 RCW, Puget Sound Water Quality Protection*
- *Chapter 90.76 RCW, Underground Storage Tanks*

Constituents/Interested Parties

An important element of the Model Toxics Control Act (MTCA) is including the public and other interested parties throughout the

process of cleaning up contaminated sites and developing new initiatives. We continue to build partnerships among government, industry, and residents. Constituents interested in cleaning up contaminated sites include:

- *The Legislature.*
- *State, federal, and local governments.*
- *Conservation and environmental groups.*
- *Businesses and individuals engaged in contaminated site cleanup.*
- *Ports.*
- *Insurance and petroleum companies.*
- *Tribes.*
- *Lenders, developers, and realtors.*
- *Contaminated site owners.*
- *Water purveyors.*
- *Residents interested in, living near, or affected by contaminated sites.*
- *Tank owners and operators.*
- *Homes and businesses affected by leaking underground storage tanks.*
- *Underground storage tank service providers.*

Issues

Meeting Cleanup Demands

The Voluntary Cleanup Program is designed for simpler sites with routine cleanups. Under the program, customers can perform a cleanup independently and request technical assistance and written opinions from Ecology on the sufficiency of your cleanup.

Over the last several years, resources to manage the Voluntary Cleanup Program (VCP) have not kept pace with the demand for services. Customers drive the VCP demand as they request advice and technical assistance. With today's strong real estate market, demand is greater than ever before. As of June 2019, there are more than 700 contaminated sites enrolled in the VCP, and about 112 of those sites are on waiting lists.

Under the VCP, Ecology's performance goal is to respond to requests for written opinions on independent cleanups within 90 days 90 percent of the time. To achieve this goal, Ecology determined we need to limit the number of active VCP projects per manager to 30. But, the current average workload per manager is about 41. The excess workload is even more acute in the Northwest region, where demand for VCP reviews is highest. Ecology needs more VCP cleanup project managers to significantly reduce the review backlog and achieve the 90-day performance goal.

Over the past three years, Ecology has shifted some VCP work on petroleum-contaminated sites to the Pollution Liability Insurance Agency (PLIA) and implemented changes to make the VCP review process more efficient. This includes developing cleanup guidelines, model remedies, submittal checklists, and templates. These changes have helped reduce, but not eliminate, the backlog of VCP projects at Ecology. The 2019 Legislature passed SHB 1290 with a unanimous vote in both the House and Senate, and the Governor signed it into law in April 2019. The bill authorizes Ecology to:

- Establish a self-funding, expedited process for reviewing independent cleanups.
- Waive the costs of reviewing independent cleanups when affordable housing is built on the cleaned-up properties.

Ecology plans to develop and implement the new expedited review process by July 1, 2020, using the one new cleanup project manager authorized and funded in the 2019-21 biennial budget. The expedited review process will allow Ecology to be more responsive to the needs of customers working under tight timelines and reduce VCP dependence on tax revenue. But, it cannot help reduce the backlog without additional staff to conduct the reviews.

Supporting Affordable Housing-Related Cleanup

The need for affordable housing has reached critical levels statewide. Communities simultaneously struggle with finding available land and increasing real estate costs. It is particularly critical along the I-5 corridor in Seattle-King County, Everett, Bellingham, and Vancouver. In those areas, available and desirable properties for development are scarce. Contaminated properties that were once overlooked, abandoned, or underused are now being considered for redevelopment.

The 2018 Legislature directed Ecology and the Department of Commerce to develop a competitive process to fund recipients who will use their cleaned up property to build affordable housing. They also provided funds for Ecology to distribute to local governments to investigate and plan cleanup for potential affordable housing development.

The Healthy Housing Remediation Program launched in 2018. The efforts created two new grants: the Affordable Housing Integrated Planning Grant (IPG) and Affordable Housing Cleanup Grant. Both grants are available to public and private developers looking to develop a brownfield site into affordable housing after cleanup. The budget for the 2019–21 Biennium includes $5 million for these grants to help communities redevelop property into affordable housing.

Putting state funds to work in partnership with local governments, developers, and non-profit organizations can convert brownfield sites into productive reuse and meet other societal needs.

Integrating Cleanup and Water Quality Authorities

Using regulatory tools effectively to address long-term environmental objectives is a significant challenge facing Ecology at two sites that bookend the state; the Lower Duwamish Waterway in Seattle and the Spokane River in Spokane. Both have polychlorinated biphenyl (PCB) contamination, and both have widespread contamination that involves multiple government and private partnerships.

Resolving regulatory differences and integrating their respective requirements is critical. Success in this arena will ensure the longevity of cleanup action as well as achieve water quality objectives in the Lower Duwamish and Spokane Rivers.

Lower Duwamish Waterway

The Lower Duwamish Waterway is one of two projects in the nation where Ecology and the U.S. Environmental Protection Agency (EPA) are bringing their cleanup and water quality staff together to solve very complex cleanup issues in an active industrialized area.

The Lower Duwamish Waterway is a Superfund site located in Seattle. The site is approximately five miles long. There are nearly 275 confirmed or suspected contaminated sites within the Superfund site. With 32 square miles of stormwater and combined sewer overflow (CSO) drainage, contaminants can be picked up by runoff in the drainage area or deposited in the river and settle into the sediments. These contaminants include PCBs, polycyclic aromatic hydrocarbons, dioxins and furans, phthalates, arsenic, mercury, and other metals. These pose a threat to people, fish, and wildlife.

Managing this combination of site-specific and diffused sources of pollutants is called source control. Source control efforts are a critical part of reducing contaminants to the Waterway so the in-water sediment cleanup led by EPA is effective and long lasting. Without an effective source control strategy in place, the in-water cleanup will be impacted by this continuing pollutant input and become recontaminated. Ecology's near-term goal is to work with local government, businesses, and industries in the Lower

Duwamish Waterway to sufficiently control contaminant sources before EPA's active sediment remediation work begins. Source control will reduce the potential for recontamination, which will preserve the in-water remediation.

Spokane River

The Spokane River begins in Idaho and flows for 112 miles through the cities of Post Falls and Spokane, eventually discharging into the Lake Roosevelt stretch of the Columbia River. Its drainage area encompasses over 6,500 square miles in Washington and Idaho.

Testing has shown high PCB levels in the river. PCBs get into the Spokane River through industrial discharges, wastewater treatment plants, and stormwater. These PCBs, along with PCBs found in sediments from historical discharges, are found in the River's fish.

Ecology, tribes, other agencies, stakeholders, and the general public continue to work together to find effective solutions to improve and preserve the Spokane River. One collaborative effort is led by the Spokane River Urban Waters Team, a partnership between Ecology and the Spokane Regional Health District. They work closely with the Spokane River Forum and Spokane Aquifer Joint Board to develop informational materials for local businesses and the public.

The Toxics Cleanup Program also participates in the Spokane Regional Toxics Task Force, an entity comprised of regulatory entities, state and local governments, environmental groups, and dischargers. The group has developed a comprehensive plan to bring the Spokane River into compliance with applicable water quality standards for PCBs. We work closely with Ecology's Water Quality program to ensure that work performed by the Task Force aligns with cleanup work occurring at sites along the river.

Water quality in the Lower Duwamish Waterway and the Spokane River causes concern for human and environmental health due to their active use. Both of the rivers:

- Are used for recreation.
- Are used for fishing, including tribal use.
- Have contaminants in the sediments that can be carried through the food chain to fish and people.
- Receive discharges from industrial and municipal sources that contain PCBs.
- Flow through varied land uses, including industrial, residential, and recreational areas.
- Are adjacent to active industrial areas that are continued pollution sources.

Collaboration between the Toxics Cleanup and Water Quality programs at Ecology are critical and ongoing. When challenges arise due to competing regulations, these programs work together as One Ecology to ensure contaminated site cleanup comports with water quality permits and vice versa.

Building Momentum for Brownfields

Brownfields are abandoned or underused properties that may have environmental contamination that is inhibiting redevelopment. The Toxics Cleanup Program's Brownfields Program works with local governments, non-profits, tribes, and community stakeholders across the state who are interested in cleaning up brownfields for redevelopment. Brownfields Program staff work with communities to provide information, funding resources, technical assistance, and outreach opportunities.

As part of a renewed focus on small and rural communities, TCP added a brownfields specialist position based in the Eastern Regional Office to build relationships with communities to encourage brownfields redevelopment. In addition to providing technical assistance and oversight, we guide communities through all stages of site assessment and cleanup.

The budget for the 2019–21 Biennium includes $1 million for Integrated Planning

Grants (IPG). IPGs are a type of Remedial Action Grant that can fund a variety of assessment and reuse planning activities, including environmental investigations, market and feasibility studies, and cultural resources assessments.

IPGs provide $200,000–$300,000 to support planning, investigation, and public involvement related to a potential cleanup. This early funding for planning can produce a much bigger return on investment later in the project. Whether that planning is for site assessment or other innovative uses that benefit the public, the key is setting the stage early, which gives projects a strong foundation for later success.

In addition to IPGs, TCP's Brownfields Program will continue to facilitate a limited number of site assessments each year using funding from the EPA State Response Program grant. Local governments, tribes, and non-profits can request assessments for properties they own or plan to purchase.

Activities, Results, and Performance Measures

Clean Up the Most Contaminated Sites First (Upland and Aquatic)

Ecology protects public health and natural resources by cleaning up and managing contaminated upland sites and contaminated sediments in the aquatic environment. Resources are first focused on cleaning up contaminated sites that pose the greatest risk to public health and the environment. These include sites where contamination threatens drinking water, exists in a large quantity, is very toxic, may affect a waterbody or the environmental health of sediments, or may affect people that are living, working, or recreating near the site. Contamination may be in the soil, sediments, underground water, air, drinking water, or surface water. Ecology also manages multi-agency upland and sediment cleanup projects. Cleaning up these sites protects public health, safeguards the environment, and promotes local economic development by making land available for new industries and other beneficial uses.

Expected Results

- The number of highly contaminated sites cleaned up increases by three percent each year.
- Public and environmental health is protected.
- Toxic contamination in food fish is reduced, and the aquatic environment is protected.
- Cleaned sites are ready for redevelopment and job creation.
- The number of sites with cleanup actions in progress increases.

Performance Measure

- Number of known toxics-contaminated sites with cleanup actions completed statewide.

Services to Site Owners that Volunteer to Clean Up Their Contaminated Sites

Ecology provides services to site owners or operators who initiate cleanup of their contaminated sites. Voluntary cleanups can be done in a variety of ways; completely independent of Ecology, independently with some Ecology assistance or review, or with Ecology oversight under a signed legal agreement (an agreed order or consent decree). They may be done through consultations, prepayment agreements, prospective purchaser agreements, and brownfields redevelopment. The Voluntary Cleanup Program minimizes the need for public funding used for cleanup and promotes local economic development through new industries and other beneficial uses of cleaned properties.

Expected Results

- Three percent increase in the number of contaminated sites that are voluntarily

cleaned up by site owners and prospective buyers using private funding.
- Public and environmental health is protected.
- Cleaned sites are ready for redevelopment and job creation.
- Increased number of sites with cleanup actions in progress.
- Decreased response time from Ecology to site owners and prospective buyers.
- Increased number of determinations made on final cleanup reports submitted by parties that voluntarily cleaned up sites.

Performance Measures

- Percentage of the Voluntary Cleanup Program applicants who receive an assessment of their plan or report within 90 days.
- Average number of days to provide an assessment of a plan or report received from a Voluntary Cleanup Program applicant.

Manage Underground Storage Tanks to Minimize Releases

Ecology currently regulates over 9,000 active tanks on over 3,300 different properties, including gas stations, industries, commercial properties, and governmental entities. We ensure tanks are installed, managed, and monitored according to federal standards and in a way that prevents releases into the environment. This is done through compliance inspections and providing technical assistance to tank owners and operators. Properly managing tanks saves millions of dollars in cleanup costs and prevents contamination of limited drinking water and other groundwater resources.

Expected Results

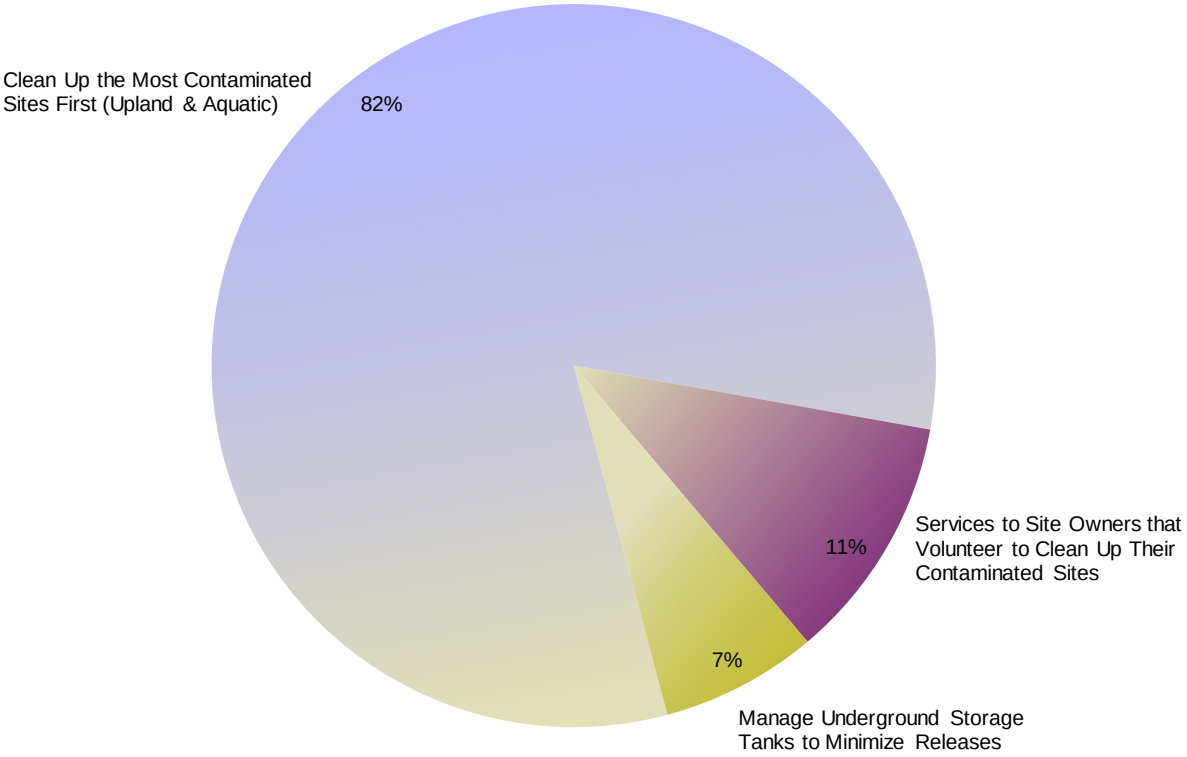
- Underground storage tanks are properly installed, monitored, or decommissioned to minimize the release of oil, gas, and other toxic materials into drinking water and other underground water sources.
- Decreased number of reported releases from underground storage tanks over time.
- Increased number of leaking underground storage sites where cleanup actions are completed.
- Increased percentage of underground storage tanks inspected that pass compliance for leak detection.

Performance Measure

- Percentage of underground storage tank sites inspected within three years.

Toxics Cleanup Program 2019-21 Biennium Budget by Activities

Operating = $63.7 Million | Capital = $197.2 Million | Total = $260.9 Million | FTEs = 204.4



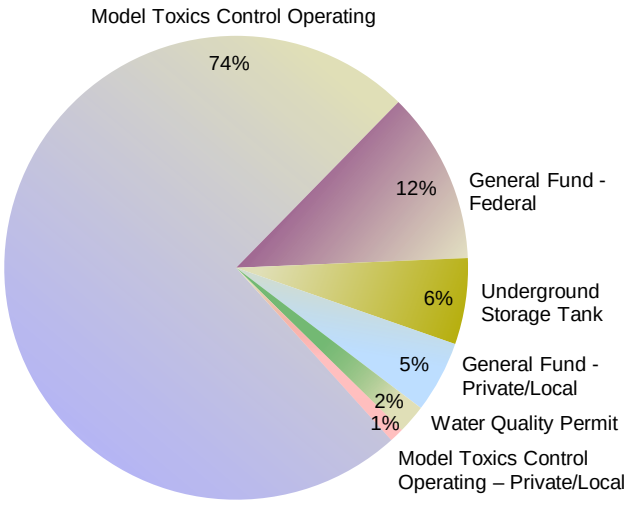
Activities	Amount	%	FTEs
Clean Up the Most Contaminated Sites First (Upland & Aquatic) (A005)	$52,130,000	82%	157.8
Services to Site Owners that Volunteer to Clean Up Their Contaminated Sites (A057)	6,815,000	11%	23.0
Manage Underground Storage Tanks to Minimize Releases (A023)	4,804,000	7%	23.6
Toxics Cleanup Operating Budget Total	**$63,749,000**	**100%**	**204.4**

Toxics Cleanup Program

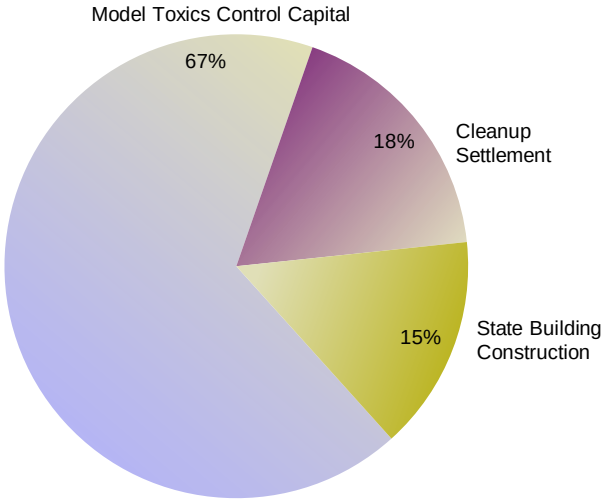
Toxics Cleanup Program 2019-21 Biennium Budget by Fund Source

Operating = $63.7 Million | Capital = $197.2 Million | Total = $260.9 Million | FTEs = 204.4

Operating



Capital



Operating Fund Sources	Amount	%	Uses
Model Toxics Control Operating (23P)	$47,143,000	74%	Cleanup activities include overseeing cleanups conducted under an order or decree, providing advice and assistance to persons independently conducting cleanups, leading emergency actions and cleanups where sites are abandoned or have non-compliant owners, and supporting contaminated site cleanup with public information, policy, and rule development, and other Toxic Cleanup Program support tasks. Includes cleanup project manager oversight of local government Remedial Action Grants.
General Fund – Federal (001)	7,945,000	12%	Federal cooperative agreements support the following: program activities and funding assistance for cleanup at Brownfield sites, national priorities list sites, federal superfund sites at military facilities, technical assistance, and cleanup related to leaking underground storage tanks, and pollution prevention, inspection, and permitting activities related to underground storage tanks.
Underground Storage Tank (182)	3,581,000	6%	Pollution prevention, inspection, and permitting activities related to underground storage tanks.
General Fund – Private/Local (001)	3,004,000	5%	Ongoing appropriations allow cleanup work at sites where there are multiple potentially liable parties. Funds allow Ecology to act as contracting agent and pass payment money to a cleanup contractor.
Water Quality Permit (176)	1,577,000	2%	Review NPDES permits to ensure discharges are not contaminating sediments above sediment management standards.
Model Toxics Control Operating – Private/Local (23P)	499,000	1%	Activities related to the cleanup of leaking underground storage tanks.
Operating Budget Total	**$63,749,000**	**100%**	

Capital Fund Sources	Amount	%	Uses
Model Toxics Control Capital (23N)	$131,743,568	67%	Remedial Action Grant Program funding local government grants. Administration of the Remedial Action Grants, which provides fiscal oversight of the program. Investigate and clean up toxic sites. Includes appropriations for Cleanup Toxic Sites – Puget Sound and the Eastern Washington Clean Sites Initiative to clean up orphaned or abandoned sites, clean up sites with non-compliant owners, fund emergency removals, and invest where state funding can advance cleanups and build partnerships. Development, implementation and evaluation of model remedies.
Cleanup Settlement (15H)	35,747,145	18%	Continued remediation activities for the Asarco Tacoma smelter plume, Everett smelter site, and mine sites.
State Building Construction (057)	29,703,034	15%	Remedial Action Grant Program funding local government grants. Investigate and clean up toxic sites. Includes appropriations for Cleanup Toxic Sites – Puget Sound and the Eastern Washington Clean Sites Initiative to clean up orphaned or abandoned sites, clean up sites with non-compliant owners, fund emergency removals, and invest where state funding can advance cleanups and build partnerships.
Capital Budget Total	**$197,193,747**	**100%**	
Toxics Cleanup Operating & Capital Budget Total	**$260,942,747**		

Ecology scientists Dale Norton and Brandee Era-Miller perform water quality sampling.

Water Quality Program

Program Mission

The mission of the Water Quality Program is to protect and restore Washington's waters to sustain healthy watersheds and communities. Our work ensures state waters support beneficial uses, including recreational and business activities, supplies for clean drinking water, and the protection of fish, shellfish, wildlife, and public health.

Environmental Threats

Water pollution threatens lakes, estuaries, streams, and groundwater across Washington State. Fish, shellfish, and other aquatic animals require clean water to survive. Water quality impacts to rivers and streams include high water temperature, low dissolved oxygen, low pH, toxics, and bacteria. In spite of our efforts to date, Washington already has a significant number of waterbodies, marine sediments, and groundwater polluted by an array of contaminants.

Several sources contribute to poor water quality, and stormwater is foremost among them. Stormwater is rain and snowmelt that runs off surfaces such as rooftops, paved streets, highways, and parking lots. As water runs off these surfaces, it can pick up pollution like oil, fertilizers, pesticides, soil, trash, and animal waste. From here, the water might flow into a local waterway. And, the large impervious surfaces in urban areas increase the quantity of peak flow runoff. Untreated stormwater can make water and shellfish unsafe for humans and animals and can harm fish and wildlife habitat.

Federal law requires states to identify sources of pollution in waters that fail to meet state water quality standards and to develop water quality cleanup plans (TMDLs) to address those pollutants. The TMDL establishes limits on pollutants that can be discharged to the waterbody and still allow state standards to be met.

Toxic pollution is a growing concern threatening water quality. Ecology is studying sources of toxic pollution and developing action strategies to clean up and protect water quality. As Washington's population continues to increase, so will these potential sources of water pollution.

Authorizing Laws

- *Federal Clean Water Act*
- *Federal Safe Drinking Water Act*
- *RCW 43.21A.650, Freshwater Aquatic Weeds Account*
- *Chapter 70.105D RCW, Model Toxics Control Act*
- *Chapter 70.146 RCW, Water Pollution Control Facilities Financing Act*
- *Chapter 76.09 RCW, Forest Practices Act*
- *Chapter 90.42 RCW, Water Resources Management Act*
- *Chapter 90.46 RCW, Reclaimed Water Use*
- *Chapter 90.48 RCW, Water Pollution Control Act*
- *Chapter 90.50A RCW, Water Pollution Control Facilities Federal Capitalization Grants*
- *Chapter 90.54 RCW, Water Resources Act of 1971*

- *Chapter 90.64 RCW, Dairy Nutrient Management Act*
- *Chapter 90.71 RCW, Puget Sound Water Quality Protection*

Constituents/Interested Parties

- *Tribes and tribal governments.*
- *Residents and special interest groups.*
- *Local governments, cities, and counties.*
- *Businesses and industries.*
- *Environmental organizations.*
- *State and federal governments and agencies.*
- *Conservation districts.*

Issues

Point Source Water Pollution

Ecology regulates pollutant discharges to surface and ground waters by writing and managing wastewater discharge permits for sewage treatment plants, industrial facilities, and other general categories of wastewater dischargers. Ecology:

- Helps dischargers comply with existing permits.
- Makes permits understandable and effective in protecting water quality.
- Works to increase the use of reclaimed water.

Clean Up Polluted Waters

Ecology helps local communities and businesses clean up polluted waters to meet water quality standards. Ecology:

- Assesses state waters and updates the list of polluted waterbodies.
- Works with communities to clean up nonpoint source pollution.
- Collaborates with partners using the latest science to find solutions to reduce human sources of nutrients.
- Identifies Best Management Practices (BMPs) for nonpoint pollution sources.

Nonpoint Source Water Pollution

Nonpoint pollution is Washington's most serious pollution problem, and the most difficult one to solve. This pollution comes from diffused sources, is generated by every kind of land use, and has no specific regulatory tool (like a permit) to deal with it. Solving the nonpoint pollution problem will require behavior changes, as well as better land management and structural management practices. Ecology:

- Secures federal funding to support nonpoint source work.
- Makes sure forest practices are on a path to meet water quality standards.

Stormwater

Ecology helps local governments build stormwater programs in cities and counties. Our stormwater permits cover municipalities, industries, and construction projects. Ecology:

- Helps dischargers improve compliance with existing stormwater permits.
- Works to ensure that having a permit is not a competitive disadvantage.
- Helps dischargers reduce contaminated stormwater runoff from their sites.

Financial Assistance

In the 2019-21 Biennium, Ecology will award new water quality grants and loans and continue to manage existing grants and loans to protect public health and the environment through water quality protection and improvement. Ecology will:

- Provide effective and efficient financial and technical assistance to manage water quality projects with the highest benefit to human health and the environment.
- Capture environmental data and demonstrate the environmental benefits of the grant and loan program.
- Help grant and loan recipients properly manage public funds with a high level of integrity and accountability.

- Continue to develop an ongoing, comprehensive, statewide stormwater financial assistance program for local governments.
- Coordinate with other state and federal programs to provide technical assistance to communities planning water quality improvement projects.

Activities, Results, and Performance Measures

Provide Water Quality Financial Assistance

Ecology provides grants, low-interest loans, and technical assistance to local governments, state agencies, and tribes to enable them to build, upgrade, repair, or replace facilities to improve and protect water quality. This includes meeting the state's obligation to manage the Water Pollution Control Revolving Fund in perpetuity. Ecology also funds nonpoint source control projects, such as watershed planning, stormwater management, freshwater aquatic weed management, education, and agricultural best management practices. Grants are targeted to nonpoint source problems and communities where needed wastewater facilities projects would be a financial hardship for taxpayers. Local governments use loans for both point and nonpoint source water pollution prevention and correction projects. Ecology coordinates grant and loan assistance with other state and federal funding agencies.

Expected Results

- Public funds dedicated to improving water quality are managed responsibly to protect public health and the environment.
- Water quality is improved by awarding about $75 million in water quality grants and loans per year to local communities.
- About 60 new grants and loans are awarded each year for projects under existing and ongoing financial assistance programs that demonstrate clear benefits for the environment.
- Additional grants are awarded each year for stormwater projects, based on newly appropriated funds.
- Approximately 350 existing grants and loans are managed each year.
- Local governments get support through implementing revised grant and loan program rules that address updated water quality needs, the State Revolving Fund loan program perpetuity, balanced funding allocations, and design-build alternative contracting options.
- Environmental benefits are documented and illustrated through data generated from grants and loans.

Performance Measure

- Number of funded on-site sewage system repairs or replacements completed in Puget Sound counties.

Prevent Point Source Water Pollution

Ecology protects Washington's water by regulating point-source discharges of pollutants to surface and ground waters. This is done with a wastewater permit program for sewage treatment plants and an industrial discharge program for other industries. A permit is a rigorous set of limits, monitoring requirements, or management practices, usually specific to a discharge, designed to ensure a facility can meet treatment standards and water quality limits. The permit is followed by regular inspections and site visits. Technical assistance and follow up on permit violations also are provided through various means.

Expected Results

- Fewer wastewater discharges and lower toxicity through administering the permit program for 2,000 permit holders.
- 100 National Pollution Discharge Elimination System wastewater discharge permits are issued or renewed each year.

- Active permits are up to date.
- New permit applicants get responses within 60 days.
- General permits are developed and managed on schedule for 1,500 dischargers.
- 700 site visits are done each year.
- Approximately 2,000 wastewater plant operators get certification.
- Communities get help increasing the production and use of reclaimed wastewater.
- Ecology responds to permit violations in a timely manner (within three months for minor violations).

Performance Measure

- Percentage of active water quality discharge permits (National Pollutant Discharge Elimination System permits) that are up to date.

Control Stormwater Pollution

Ecology prepares tools, provides assistance, and offers compliance strategies to control the quantity and quality of stormwater runoff from development and industrial activities. We currently provide training and assistance to communities and industries on stormwater manuals and the Western Washington hydrology model. Ecology works with local governments and other stakeholders to implement a municipal stormwater program and permitting system.

Expected Results

- Reduced contamination of streams, rivers, estuaries, lakes, and groundwater due to stormwater runoff from roads and other impervious surfaces.
- Approximately 3,000 construction and industrial stormwater dischargers that require permits are managed.
- New permit applicants get a response within 60 days of application receipt.
- Approximately 120 municipal stormwater permits are managed.
- Permittees get web-based information and support for low-impact development, emerging treatment technologies, and permit technical assistance.

Performance Measures

- Average number of days it takes to make final decisions on construction stormwater permits.
- Percentage of city and county Phase II Municipal Stormwater permittees in substantial compliance with their permit.
- Number of industrial stormwater inspections conducted.
- Number of construction stormwater inspections conducted.
- Percentage of industrial stormwater facilities submitting discharge monitoring reports as required by permit.
- Percentage of construction stormwater facilities submitting discharge monitoring reports as required by permit.

Clean Up Polluted Waters

The Federal Clean Water Act requires Ecology to develop water quality standards and identify water bodies that fail to meet those standards. We do this by reviewing thousands of water quality data samples and publishing an integrated water quality assessment report. This report lists the water bodies that do not meet standards. Ecology then works with local interests to prepare water quality improvement reports to reduce pollution, establish conditions in discharge permits and nonpoint source management plans, and monitor the effectiveness of the improvement report.

Expected Results

- Water quality improvement reports are in place to protect public health and the environment.

- 1,500 contaminated water body segments are managed on 650 water bodies (Washington's legal commitments specified in a Memorandum of Agreement prompted by a lawsuit).
- Fifty water improvement reports and associated technical reports are submitted each year to the Environmental Protection Agency.
- Local communities get help implementing water quality improvement reports.
- An updated list of marine water bodies failing to meet water quality standards is developed.

Performance Measure

- Number of water quality cleanup plans submitted to the U.S. Environmental Protection Agency.

Reduce Nonpoint Source Water Pollution

Nonpoint source pollution (polluted runoff) is the leading cause of water pollution and poses a major health and economic threat. Types of nonpoint pollution include fecal coliform bacteria, elevated water temperature, pesticides, sediments, and nutrients. Sources of pollution include agriculture, forestry, urban and rural runoff, recreation, hydrologic modification, and loss of aquatic ecosystems. Ecology addresses these problems through raising awareness, encouraging community action, providing funding, and supporting local decision makers. We also coordinate with other stakeholders through the Washington State Nonpoint Workgroup, the Forest Practices Technical Assistance group, and the Agricultural Technical Assistance group.

Expected Results

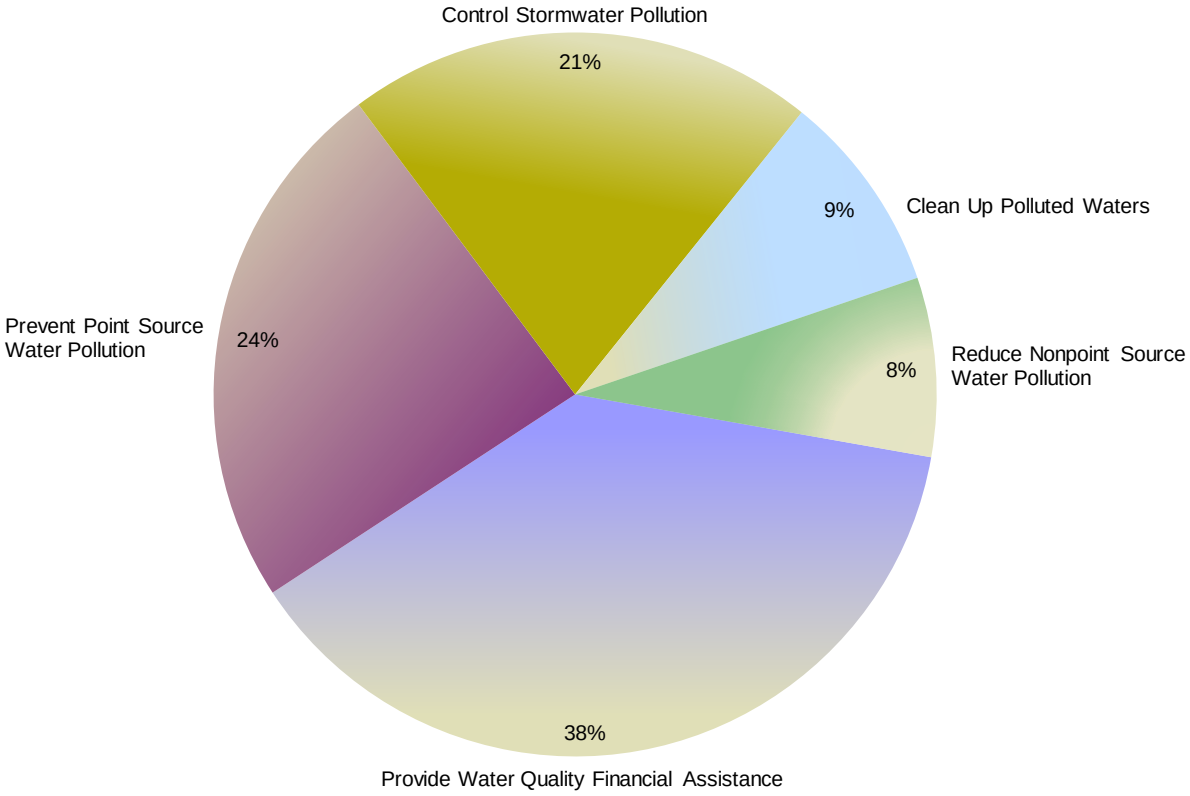
- Protection of surface and groundwater is improved through community implementation of the state's Water Quality Management Plan to Control Nonpoint Pollution and water quality improvement reports.
- Local communities and groups get help from Ecology to implement water quality improvement reports and other strategies to clean up polluted waters.
- The Department of Natural Resources and the forestry industry get help to manage 12 million acres of state-owned and privately-owned forests.
- The Department of Agriculture gets help to manage water quality problems generated by agricultural uses.
- Best management practices necessary to address nonpoint pollution problems are implemented.
- State and federal grants are available to, and used efficiently by, local governments.
- The number of stream miles restored or protected is increased through work with local communities and other agencies.

Performance Measure

- Number of funded on-site sewage system repairs or replacements completed in Puget Sound counties.

Water Quality Program 2019-21 Biennium Budget by Activities

Operating = $105.9 Million | Capital = $387.3 Million | Total = $493.2 Million | FTEs = 266.8

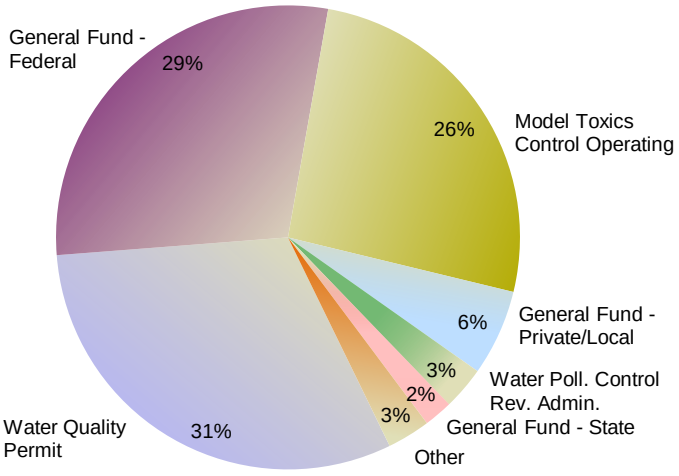


Activities	Amount	%	FTEs
Provide Water Quality Financial Assistance (A043)	$40,664,000	38%	49.3
Prevent Point Source Water Pollution (A032)	25,701,000	24%	91.5
Control Stormwater Pollution (A008)	21,901,000	21%	57.1
Clean Up Polluted Waters (A006)	9,568,000	9%	35.5
Reduce Nonpoint Source Water Pollution (A049)	8,064,000	8%	33.4
Water Quality Operating Budget Total	**$105,898,000**	**100%**	**266.8**

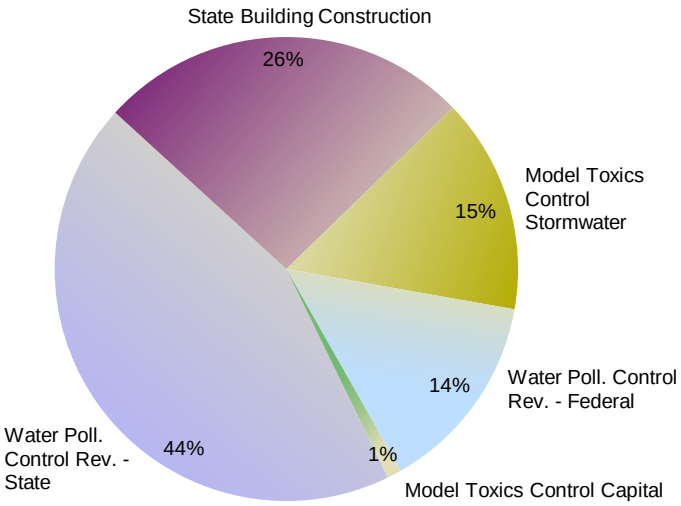
Water Quality Program 2019-21 Biennium Budget by Fund Source

Operating = $105.9 Million | Capital = $387.3 Million | Total = $493.2 Million | FTEs = 266.8

Operating



Capital



Operating Fund Sources	Amount	%	Uses
Water Quality Permit (176)	$33,344,000	31%	Issue and manage federal and state wastewater/stormwater discharge permits.
General Fund – Federal (001)	30,923,000	29%	Numerous U.S. Environmental Protection Agency grants for point and nonpoint source control; water cleanup plans; management of water quality grants and loans to local governments; and groundwater protection.
Model Toxics Control Operating (23P)	27,128,000	26%	Stormwater management and local government stormwater capacity grants; water quality standards; aquatic pesticides management; water quality financial assistance; enforcement of permit requirements; Puget Sound Plan activities, such as nonpoint source watershed management; forest practices compliance; water cleanup plans; data and aquatic plant management. This funding also provides state match needed to secure federal funding.
General Fund – Private/ Local (001)	6,114,000	6%	Administer the Stormwater Action Monitoring (SAM) Program and provide technical expertise to local government water quality projects such as King County's Brightwater Wastewater Treatment Plant.
Water Pollution Control Revolving Administration (564)	3,488,000	3%	Funding will provide the Water Quality Program with stable financial resource to provide engineering oversight, financial management, and administration for the SRF loan program based on Clean Water Act requirements.
General Fund – State (001)	1,965,000	2%	Funding is passed through to the Spokane River Regional Toxics Task Force in order to identify and remove sources of PCBs in the Spokane River.

Water Quality Program

Operating Fund Sources	Amount	%	Uses
Other:			
Reclamation (027)	1,238,000	<2%	Funding provided to Ecology and the Department of Fish and Wildlife to license, re-license, and monitor the effects of hydroelectric projects on water, fish and wildlife.
Freshwater Aquatic Weeds (222)	1,180,000	<2%	Grants to local governments to prevent, remove, or manage invasive freshwater aquatic weeds.
Aquatic Algae Control (10A)	518,000	<1%	Grants to local governments to prevent, remove, or manage freshwater and saltwater aquatic blue-green algae.
Operating Budget Total	**$105,898,000**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
Water Pollution Control Revolving – State (727)	$168,840,000	44%	State funds for loans for constructing or replacing water pollution control facilities, nonpoint source control activities, and estuary management.
State Building Construction (057)	101,903,243	26%	New appropriations and re-appropriations for the Centennial Clean Water Program provide grants for water pollution control facilities and nonpoint source control. Re-appropriations provide grants for the Stormwater Financial Assistance Program.
Model Toxics Control Stormwater (23R)	58,812,729	15%	Grants for statewide stormwater projects to local governments for plan, design, and construct stormwater retrofit or low-impact development projects.
Water Pollution Control Revolving – Federal (727)	52,836,075	14%	Federal funds for loans for constructing or replacing water pollution control facilities, nonpoint source control activities, and estuary management.
Model Toxics Control Capital (23N)	4,931,147	1%	Re-appropriations for the Centennial Clean Water Program provide grants for water pollution control facilities and nonpoint source control.
Capital Budget Total	**$387,323,194**	**100%**	
Water Quality Operating & Capital Budget Total	**$493,221,194**		

Ecology's Water Resources staff work with crew members from the Washington Department of Fish and Wildlife to build a temporary fish passage for bull trout at the mouth of Box Creek where it enters Little Kachess Reservoir. This project is part of the Yakima Basin Integrated Plan.

Water Resources Program

Program Mission

The mission of the Water Resources Program is to manage water resources to meet the needs of people and the natural environment, in partnership with Washington communities.

Environmental Threats

Historically, Washington residents have enjoyed an abundance of clean and inexpensive water. Now, water managers are facing increasing challenges in ensuring adequate water supplies are available to meet current and future needs.

Washington increasingly lacks water where and when it is needed for fish, farms, and communities. Decreasing snowpack, earlier spring thaws, and hotter summers are exacerbating problems with threatened and endangered fish and wildlife species already stressed by the state's growing population. Climate change is likely to further increase the frequency and severity of droughts, resulting in dry or over-heated streams, withered crops, rampant wildfires, and reduced hydropower production.

Lack of water for further allocation puts senior water rights and instream flows at risk of impairment in water-short basins. Legal uncertainty related to the validity and extent of water rights and claims, including federal and Indian rights and claims, are putting more water allocation decisions in the hands of judges and attorneys.

Authorizing Laws

- *Chapter 18.104 RCW, Water Well Construction Act (1971)*
- *RCW 19.27.097, Building permit application, evidence of adequate water supply (1990)*
- *Chapter 43.21A RCW, Department of Ecology (1970)*
- *Chapter 43.27A RCW, Water Resources (1967)*
- *Chapter 43.83B RCW, Water Supply Facilities (1972)*
- *Chapter 43.99E RCW, Water Supply Facilities – 1980 Bond Issue (Referendum 38) (1979)*
- *Chapter 77.57 RCW, Fishways, Flow and Screening (1949)*
- *RCW 86.16.035, Department of Ecology Control of Dams and Obstructions (1935)*
- *Chapter 90.03 RCW, Water Code (1917)*
- *Chapter 90.08 RCW, Stream Patrolmen (1925)*
- *Chapter 90.14 RCW, Water Rights Claims Registration and Relinquishment (1967)*
- *Chapter 90.16 RCW, Appropriation of Water for Public and Industrial Purposes (1869)*
- *Chapter 90.22 RCW, Minimum Water Flows and Levels (1969)*

- *Chapter 90.24 RCW, Regulation of Outflow of Lakes (1939)*
- *Chapter 90.28 RCW, Miscellaneous Rights and Duties (1927)*
- *Chapter 90.36 RCW, Artesian Wells (1890)*
- *Chapter 90.38 RCW, Yakima River Basin Water Rights (Trust Water) (1989)*
- *Chapter 90.40 RCW, Water Rights of United States (1905)*
- *Chapter 90.42 RCW, Water Resource Management (Trust Water) (1991)*
- *Chapter 90.44 RCW, Regulation of Public Groundwaters (1945)*
- *Chapter 90.46 RCW, Reclaimed Water Use (1992)*
- *Chapter 90.54 RCW, Water Resources Act of 1971*
- *Chapter 90.66 RCW, Family Farm Water Act (1977)*
- *Chapter 90.80 RCW, Water Conservancy Boards (1997)*
- *Chapter 90.82 RCW, Watershed Planning (1997)*
- *Chapter 90.86 RCW, Joint Legislative Committee on Water Supply During Drought (2005)*
- *Chapter 90.90 RCW, Columbia River Basin Water Supply (2006)*
- *Chapter 90.92 RCW, Pilot Local Water Management Program (Walla Walla) (2009)*
- *Chapter 90.94 RCW, Streamflow Restoration (2018)*

Constituents/Interested Parties

- *Agricultural groups.*
- *Environmental organizations, local watershed planning and management groups.*
- *Business and industry.*
- *Local governments; cities, counties, utilities, irrigation districts, and conservation districts.*
- *State and federal agencies.*
- *Indian tribes.*
- *People living near dams and dam owners.*
- *Real estate developers, realtors, and builders.*
- *Recreational water users and sport and commercial fishers.*
- *Water and power utilities.*
- *Water-right holders and well drillers.*

Issues

Water Management Challenges and Successes

Washington has seen increased demand for water supplies to accommodate population growth and economic development. Demand has also been coupled with concern for how climate change will impact water supplies and the environment.

These issues highlight the need for improving water management in water-short basins. More than ever before, Ecology recognizes the importance of working with our water management partners and the Legislature to update water management policies and provide additional funding to address increased demand and competition for water.

Ecology is focusing on more efficiently making decisions on new water rights applications. We will look at improving our applications to help facilitate sales, transfers, and changes in water use to better manage water supply. The current pending application backlog is 4,895 applications (as of June 2019), which is down from 7,018 applications in 2011. In the two-year period from July 1, 2017 to June 6, 2019, Ecology made 896 water right decisions.

Legislative support has brought funding to several water management initiatives. These initiatives are discussed in more detail below.

Engrossed Substitute Senate Bill 6091

The 2018 Washington Legislature passed ESSB 6091 (now Chapter 90.94 RCW), an act that substantially altered the state's historic approach to managing permit-exempt groundwater withdrawals for domestic purposes. Called the "Streamflow Restoration Act," this legislation imposes reduced limits on daily water withdrawals, requires fees for

the right to withdraw water for domestic purposes, and mandates plans and actions to offset the impacts of those withdrawals on instream flows. Ecology is now working with tribes, local governments, and other state agencies to implement this new chapter in water resources law and management. The new law includes the following provisions:

- Requires updates to existing watershed plans in the following Water Resource Inventory Areas (WRIAs):
  - WRIA 1 – Nooksack
  - WRIA 11 – Nisqually
  - WRIA 22 – Lower Chehalis
  - WRIA 23 – Upper Chehalis
  - WRIA 49 – Okanogan
  - WRIA 55 – Little Spokane
  - WRIA 59 – Colville
- Requires adoption of new watershed plans in:
  - WRIA 7 – Snohomish
  - WRIA 8 – Cedar-Sammamish
  - WRIA 9 – Green Duwamish
  - WRIA 10 – Puyallup-White
  - WRIA 12 – Chambers-Clover
  - WRIA 13 – Deschutes
  - WRIA 14 – Kennedy-Goldsborough
  - WRIA 15 – Kitsap
- Provides funding to establish two pilots for metering permit-exempt domestic withdrawals in Kittitas County and the Dungeness rule area (Chapter 173-518 WAC). The purpose of these pilots is to examine the overall feasibility of measuring water use for all new groundwater withdrawals.
- Establishes a joint legislative task force to look at water resource mitigation and directs Ecology to issue expedited permit decisions for up to five water resource mitigation pilot projects.

The Legislature provided additional funding in Fiscal Year 2020 for water resource compliance activities in the priority watersheds identified in the bill.

Skagit Water Supply Solutions Proviso

The 2012 Legislature approved $2.25 million for efforts to balance instream and out-of-stream benefits in the Skagit River sub-basins. This funding was re-appropriated in the 2019-21 biennial budget and will be used to continue efforts to fund balanced water supply projects that provide instream and out-of- stream benefits.

Ecology is targeting water supply projects in the Carpenter-Fisher and Nookachamps sub-basins through:

- Purchasing water rights.
- Creating water banks.
- Building storage.
- Developing aquifer recharge projects.

Ecology is focusing on implementing options that address both the instream needs of fish and the development needs of people. We are working with local governments, tribal leaders, and stakeholders to determine the best and most cost-effective package of options that addresses both instream and out-of-stream needs.

Yakima Basin Integrated Plan

Since the 2013-15 Biennium, the Legislature has invested over $239 million to implement the Yakima River Basin Integrated Water Resource Management Plan (YBIP). Ecology will request additional funding in the 2021-23 capital budget to continue implementing the YBIP. The Plan is a 30-year effort to address current water availability problems and meet impending climate change challenges by increasing water supply for both instream and out-of-stream uses. YBIP projects fall into seven categories:

- Fish passage.
- Structural and operational changes.
- Surface water storage.
- Groundwater storage.
- Market reallocation.
- Enhanced water conservation.
- Habitat protection and enhancement.

Initial projects include:

- The Teanaway acquisition.
- The Manastash Creek Conservation and Tributary Enhancement Project.
- The design and environmental review work needed to bring the Cle Elum Pool Raise and Kachess Drought Relief Pumping Plant projects to a decision point on beginning construction.

In addition to the seven YBIP elements listed above, the Plan also includes implementing the Yakima River Basin Water Enhancement Project (YRBWEP), which is a water conservation program in the Yakima Basin.

Office of Columbia River

Beginning in 2006, $200 million was provided to Ecology to implement Chapter 90.90 RCW, Columbia River Basin Water Supply. This directed Ecology to "aggressively pursue the development of water supplies to benefit both instream and out-of-stream uses."

The original $200 million authorization has been depleted. But work in the Columbia Basin requires further investment and development of additional water supplies. We expect to seek reauthorization of dedicated bonding to support the long-term investment in projects that promote water security throughout the Columbia Basin.

Columbia River projects create infrastructure to mitigate drought and climate change conditions by securing a water supply for families, farms, and fish. Significant projects include:

- The Lake Roosevelt incremental storage releases.
- Sullivan Lake water supply.
- Odessa sub-area groundwater replacement projects.

As of December 2018, the Office of Columbia River had secured approximately 413,845 acre-feet of additional water supply for instream and out-of-stream uses. With further investment, we can develop an additional 340,000 acre-feet over the next five years. To tackle future water management challenges, Ecology will follow the model of collaborating with local partners that is working in the Dungeness and Columbia River basins.

Future Focus

Ongoing challenges for the Water Resources Program include:

- Drought Funding. Drought can cause agricultural losses, drinking water shortages, and severe environmental harm. Drought is difficult to forecast, so it is critical to be prepared when it occurs. Preparation depends on having assurance that funding will be available to mitigate impacts. The lack of stable drought contingency funding causes uncertainty and limits the ability of the state to plan, communicate, and deliver on drought response.
- Finding innovative water supply solutions. As traditional water supplies become increasingly scarce and acquiring new water rights is more difficult, water users are turning to innovative water supply solutions. Ecology is working with stakeholders on water supply solutions that include developing awareness of readily usable water limits and providing incentives and institutional capacity for new water efficiency technologies, water storage, reclaimed water, and stormwater management projects.
- Improving water use accountability. We are increasing water use metering and reporting, maintaining the stream gauging network, responding to local watershed requests for compliance service, and taking actions on water law violations within resource constraints.
- Providing clarity on water rights and claims. We are close to completing the Yakima River Basin Adjudication, which

will bring clarity and certainty regarding the validity and extent of surface water rights and claims in the basin.
- Improving the availability of water resource data and information. We are developing, maintaining, and enhancing our water management data systems. This includes mapping and keeping pace with increased demands of modern water management, public service expectations, and technology.

Activities, Results, and Performance Measures

Implementing Integrated Solutions to Protect Instream Resources

Ecology staff seek to support water supply solutions that address increasing water demands from population growth, while protecting limited instream resources and adapting to climate change. Actions include:

- Instream flow rules: Work with local stakeholders to implement and update, as needed, instream flow rules for fish and wildlife, recreation, and other instream resources. Evaluate regions of the state that are experiencing conflict over water as potential areas for adjudication.
- Streamflow Restoration: Work with watershed groups to establish or revise a streamflow restoration plan to mitigate the impacts of new domestic water use.
- Section 401 federal licensing of dams: Collaborate with local governments, tribes, and other stakeholders to develop permit conditions for hydropower facilities that ensure minimum instream flows are met and stream flows are adjusted to adapt to water supply conditions during the 50-year license period.
- Water acquisition:
  - Acquire senior water rights to restore and protect stream flows.
  - Review municipal and industrial reclaimed water projects and water system plans to ensure new uses of water do not impair senior rights.
  - Monitor water supply conditions that may impact water rights and the environment and respond when water supplies are impacted by drought.

Expected Results

- Water will be available to meet the needs, today and into the future, for communities, agriculture, industry, and fish.
- Permanent instream flow protections are in place, agricultural irrigation is efficient, and Washington communities manage their water resources sustainably.
- Impacts from new water uses are offset by streamflow restoration projects.

Performance Measures

- Volume of water acquired for instream flow (acre-feet).
- Number of technical assistance visits, calls, or emails to local organizations.
- Volume of water acquired through funding irrigation efficiency projects.
- The number of watershed plans adopted by 2021.

Manage Water Rights

The agency allocates surface and ground water to meet the state's many water supply needs. Ecology staff make decisions on applications for new water rights, changes to existing water rights, and by participating in water rights adjudications in areas where additional certainty is needed.

Expected Results

- Improved allocation of new water rights and changes to existing rights through sound and timely permit decision making.
- Water needs are met and existing water users and the environment are protected.

Performance Measure

- Number of water right decisions completed.

Provide Water Resources Data and Information

Ecology collects, manages, and shares water availability and water use data with local watershed groups, conservancy boards, businesses, local governments, nonprofit groups, the Legislature, other agencies, and the media to communicate information about water allocation, dam safety, well construction, metering, and instream flows.

This data supports daily agency operations, including:

- Making water allocation decisions.
- Setting and achieving stream flows.
- Identifying the location and characteristics of wells, dams, and water diversions using Geographic Information System (GIS) tools.
- Supporting compliance actions.
- Collecting water usage and groundwater data.
- Supporting well construction and licensing activities and the Dam Safety Program.

Expected Results

- Sound water management is supported.
- Improved agreement and more informed water resources decisions are based on increasingly timely and accurate data and improved public access to information.
- Data and information systems are developed and maintained by increasing the numbers of external users (watershed groups, conservancy boards, businesses, etc.).
- Improved collection, preservation, and availability of data and information for water allocation, dam safety, well construction, instream flows, and communication.

Performance Measure

- Percentage of water rights mapping completed statewide.

Promote Compliance with Water Laws

Ecology is responsible for compliance and enforcement of Washington's water laws. Compliance staff (including program compliance officers, water masters, and metering coordinators) provide technical assistance to the public, government officials, and tribes. In addition to ensuring compliance with well drilling regulations and dam safety requirements, compliance staff also respond to and investigate complaints related to water rights and claims. Compliance efforts are prioritized in the 16 fish-critical basins.

Expected Results

- Increased awareness of, and compliance with, the state's water laws so that legal water users and applicants for water rights are not impaired, water use remains sustainable, and the environment is protected.
- Water right holders receive compliance information, assistance and strategic enforcement action.
- Water use on streams with flows set is regulated during periods of low flows.

Performance Measures

- Percentage of metered water users in the 16 fish critical basins submitting an annual report.
- Number of formal enforcement actions (penalties, orders, and notices) taken to achieve compliance for water management.

Ensure Dam Safety

This activity protects life, property, and the environment by overseeing the safety of Washington's dams. This includes inspecting the structural integrity and flood and

earthquake safety of existing state dams not managed by the federal government; approving and inspecting new dam construction and repairs; and taking compliance and emergency actions.

Expected Results

- Public and environmental health and safety is protected.
- Reduced risk of potentially catastrophic dam failures for the safety of people and property located below dams.

Performance Measures

- Number of high-hazard dams inspected.
- Number of significant-hazard dams inspected.

Regulate Well Construction

Ecology issues licenses and provides continuing education to well drillers; investigates complaints; approves variances from construction standards; and provides technical assistance to homeowners, well drillers, tribes, and local governments. The work is accomplished in partnership with delegated counties.

Expected Results

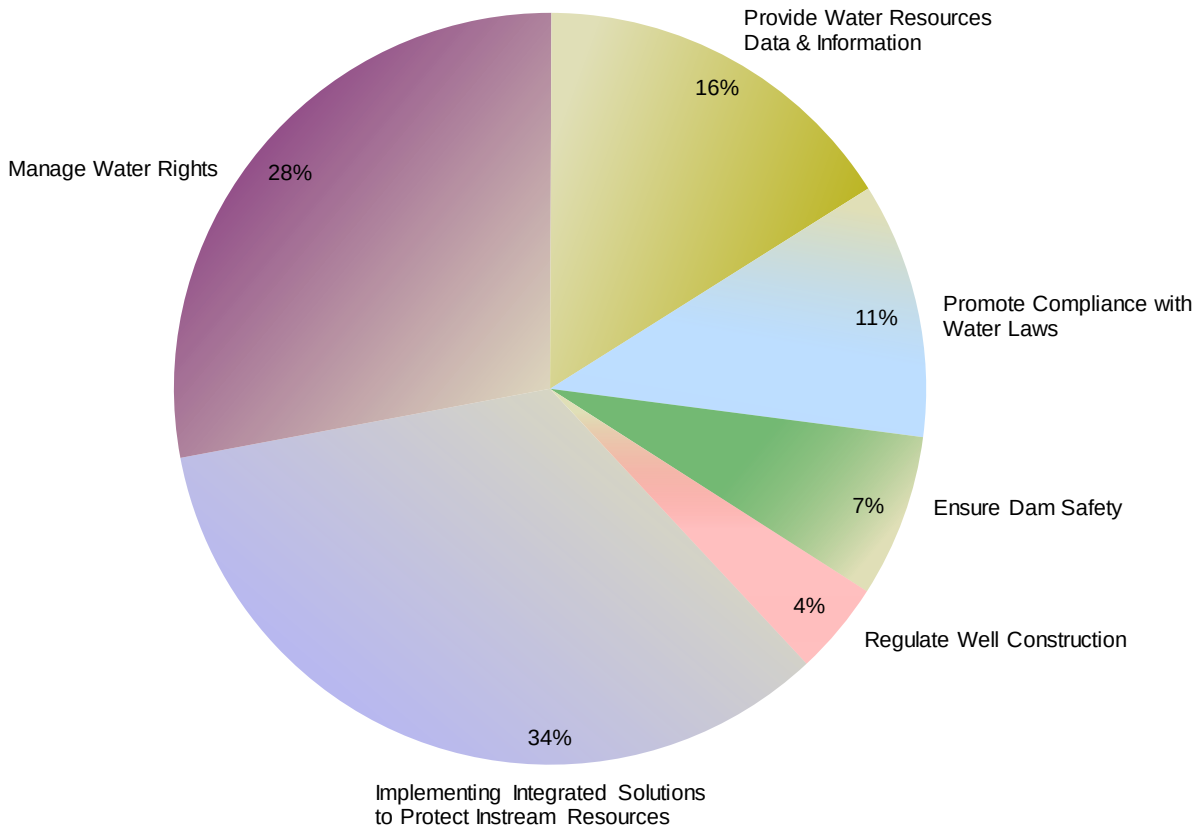
- Public and environmental health and safety is protected.
- Improved protection of consumers, well drillers, and the environment.
- Well drillers get licensing and training services.
- Well drilling is regulated.

Performance Measure

- Percentage of water supply wells inspected in delegated counties.

Water Resources Program 2019-21 Biennium Budget by Activities

Operating = $59.8 Million | Capital = $97.3 Million | Total = $157.1 Million | FTEs = 173.5

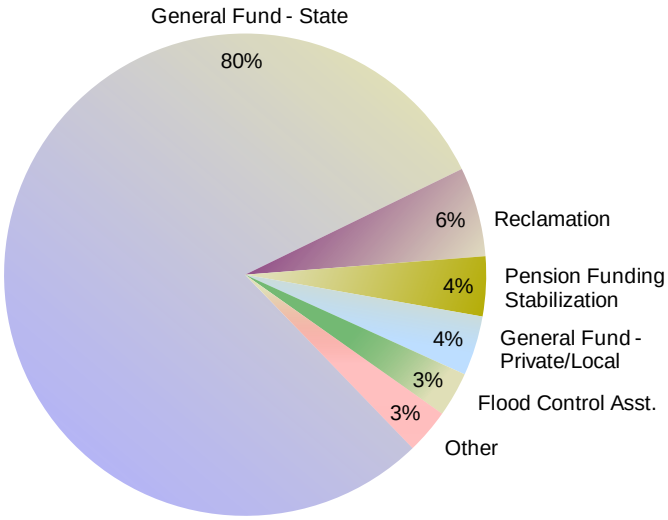


Activities	Amount	%	FTEs
Implementing Integrated Solutions to Protect Instream Resources (A003)	$20,504,000	34%	47.5
Manage Water Rights (A024)	16,919,000	28%	58.5
Provide Water Resources Data & Information (A044)	9,749,000	16%	32.7
Promote Compliance with Water Laws (A035)	6,266,000	11%	14.5
Ensure Dam Safety (A011)	4,177,000	7%	13.5
Regulate Well Construction (A053)	2,220,000	4%	6.8
Water Resources Operating Budget Total	**$59,835,000**	**100%**	**173.5**

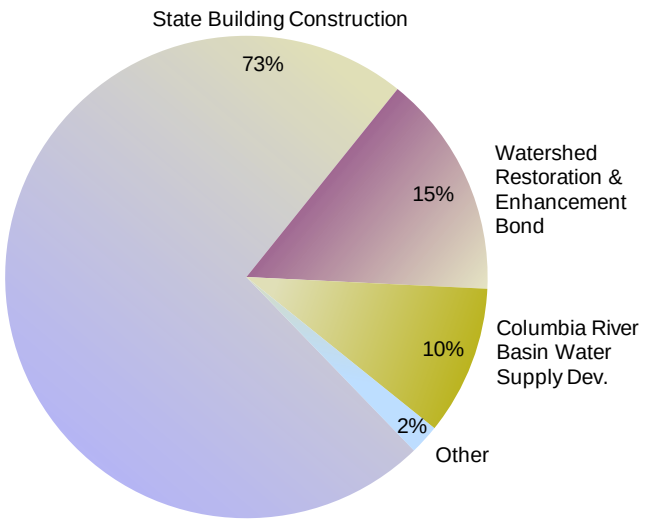
Water Resources Program 2019-21 Biennium Budget by Fund Source

Operating = $59.8 Million | Capital = $97.3 Million | Total = $157.1 Million | FTEs = 173.5

Operating



Capital



Operating Fund Sources	Amount	%	Uses
General Fund – State (001)	$47,996,000	80%	Water rights decision making, county water conservancy board assistance, illegal dam compliance, dam safety, data management, public information, water use efficiency, watershed support, instream flows, Yakima River adjudication, Columbia River activities, Spokane area water rights, Kittitas County groundwater support. Funding support for Chamokane Basin ground/surface water technical study by the U.S. Geological Survey.
Reclamation (027)	3,405,000	6%	Administration of the well construction oversight program, including revenue transfers to delegated counties with well construction management authority, compliance, well information systems. Hydropower dam licensing and contract with the U.S. Geological Survey for stream gauging data collection and studies.
Pension Funding Stabilization (489)	2,452,000	4%	Payment of employer retirement contributions for staff funded by GF-State.
General Fund – Private/Local (001)	2,400,000	4%	Instream flow projects, water acquisition, and cost reimbursement contracts for water rights processing.
Flood Control Assistance (02P)	1,508,000	3%	Operating appropriations to support local planning efforts that assess, and develop projects that include acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and developing natural and constructed infrastructure designed to provide access to new water supplies.
Other:			

Water Resources Program

Operating Fund Sources	Amount	%	Uses
Watershed Restoration & Enhancement (22K)	911,000	<2%	Operating appropriations to support local planning efforts that assess, and develop projects that include acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and developing natural and constructed infrastructure designed to provide access to new water supplies.
General Fund – Federal (001)	479,000	<1%	Dam safety scanning project and guidelines, Yakima River Enhancement liaison, Spokane Valley Rathdrum Prairie Aquifer Study.
State Drought Preparedness (05W)	204,000	<1%	Grants/loans for drought related agricultural and municipal water supply facilities projects. Purchase and lease of water rights to improve stream flows in fish critical streams.
State & Local Improvements Revolving – Water Supply Facilities, Referendum 38 (072)	183,000	<1%	Staff support for grants and loans for the improvement and/or construction of agricultural water supply facilities. Technical assistance to irrigation districts. Operation and maintenance of Zosel Dam (Lake Osoyoos in Okanogan County).
Basic Data (116)	170,000	<1%	Pass-through to the U.S. Geological Survey for stream gauging data collection and studies.
Water Rights Tracking System (10G)	48,000	<1%	Continued development, implementation, and management of a water rights tracking system, including a mapping system and database. Enhancements increase public access to water right data.
State Emergency Water Projects Revolving (032)	40,000	<1%	Grants/loans to alleviate emergency water supply conditions for municipal, industrial, and agricultural water users. Funds supply and distribution system improvements.
Water Rights Processing (16V)	39,000	<1%	Funds (via contract with applicant) the processing of water right applications for a new appropriation, change, transfer, or amendment of a water right, or for the examination, certification, and renewal of certification of water right examiners.
Operating Budget Total	**$59,835,000**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
State Building Construction (057)	$70,551,772	73%	New appropriations and re-appropriations for installation of water measuring devices, on-farm irrigation efficiencies, water conveyance improvements or equipment replacement, water storage investigations, water acquisition, watershed councils, agriculture water supply, Comprehensive Irrigation District Management Plans, Columbia River feasibility studies and implementation, Sunnyside Valley Irrigation District conservation projects, and the Yakima River Basin Water Storage Feasibility Study.
Watershed Restoration & Enhancement Bond (366)	15,000,000	15%	Capital new appropriations and re-appropriations to support grants that assess, plan, and develop projects that include acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and developing natural and constructed infrastructure designed to provide access to new water supplies.
Columbia River Basin Water Supply Development (10P)	9,856,844	10%	Capital new appropriations and re-appropriations support grants for feasibility studies and construction of storage and water conservation projects, along with purchase or leases of water rights.

Capital Fund Sources	Amount	%	Uses
Other:			
State Drought Preparedness (05W)	1,838,000	<2%	Capital new appropriations and re-appropriations to provide grants and the purchase or lease of water rights to mitigate impacts to statewide agricultural, municipal, and environmental (fishery) sectors suffering from drought conditions.
Columbia River Basin Taxable Bond Water Supply Development (18B)	44,689	<1%	Capital new appropriations and re-appropriations support grants for feasibility studies and construction of storage and water conservation projects, along with purchase or leases of water rights.
Capital Budget Total	**$97,291,305**	**100%**	
Water Resources Operating & Capital Budget Total	**$157,126,305**		

Oliver Brock with Staff Services at headquarters in Lacey ensures the electric vehicle fleet is properly maintained and ready for use.

Agency Administration Program

Program Mission

The mission of Ecology's Administration Program is to direct and sustain Ecology's effort to accomplish its mission—to protect, preserve, and enhance Washington's environment for current and future generations.

Environmental Threats

Agency Administration helps Ecology's environmental programs meet the mission of Ecology to protect Washington's environment by:

- Providing information to residents about environmental threats.
- Promoting good working relationships with members of the Legislature and tribes.
- Managing financial systems and issues.
- Providing human resource, employment, and labor relations services.
- Providing high-quality information technology services.
- Providing safe and secure workplaces.
- Managing Ecology records and ensuring appropriate public access to those records.
- Developing policies and programs that help the state achieve its greenhouse gas limits and prepare for and respond to climate impacts.

Authorizing Laws

- *Chapter 41.06 RCW, State Civil Service Law*
- *Chapter 41.80 RCW, State Collective Bargaining Law.*
- *Chapter 43.21A RCW, Department of Ecology (1970)*

Constituents/Interested Parties

- *Internal management and staff.*
- *Issues that affect other government agencies or private interests often require Agency Administration to work closely with a full range of groups interested in environmental issues.*

Issues

Staff Services and Facilities

Ecology's Staff Services and Facility Management sections provide expertise and services related to risk and emergency management, environmental performance, fleet, and facilities. Significant activities for the 2019-21 Biennium include:

- Constructing an annex facility in Spokane. This annex will locate spill response equipment and supplies adjacent to the office to greatly improve

efficiency and response time. It will also house laboratory and program storage spaces, which we don't have in the current facility.
- Moving our Northwest Regional Office (NWRO). The NWRO in Bellevue is our largest regional office and houses over 200 employees. This office is scheduled to move to Shoreline to collocate with the Washington State Department of Transportation in their Dayton Avenue building by June 30, 2021.

Information Governance

Ecology is implementing a holistic information governance program to better align records management, public records disclosure, litigation discovery, and information technology (IT) services. This will improve transparency, compliance with laws and rules, and organizational efficiency.

In the 2019-21 Biennium, Ecology is focusing on two major initiatives:
- Updating our records retention policy and records retention schedule to better align with current technology and business processes.
- Upgrading or replacing the current public disclosure tracking system to accommodate the new and rigorous performance metrics reporting requirements in RCW 40.14.026(5).

Human Resource Management

The Human Resources (HR) team will continue to carry out its strategic operating plan with the vision of powering the nation's leading environmental workforce by:
- Expanding our interagency and private industry partnerships for recruiting, selecting, and hiring highly qualified candidates. This includes a special emphasis on the goal for Ecology's diversity to reflect the people we serve. We will do this through efforts to increase the percentage of Ecology's workforce who self-identify as a person living with a disability and/or a veteran.
- Promoting a culture of respect, engagement, performance, and recognition by continuing to update our leadership development program and succession planning efforts. This includes continuing to enhance and modernize our supervisory and management training to meet the challenges of a dynamic employment environment.
- Continuing to promote a safe and healthy work environment by engaging workers in identifying and reducing hazards in the workplace, strengthening our employees' connection to wellness, and maintaining the high percentage of employees who are accident free.

Information Technology Services

Information technology (IT) is critical to protecting, preserving, enhancing, and transforming Ecology's data-driven decision making, digital business processes, and technical service delivery. Increasing security, privacy, accessibility, and public records management requirements create both opportunities and challenges. Ecology's digital transformation and preservation strategy focuses on the following:
- Preserving and protecting Ecology's data and information assets by enhancing our security practices and technologies.
- Transforming from paper-based to digital-based processes and records management.
- Developing improved data management business analytics and reporting capabilities to increase the public's access to information.
- Providing technical solutions that support an increasingly collaborative and mobile workforce.

Modernization and Migration of the Data Center

Ecology is required by state law and policy to migrate out of our agency data center. We plan to modernize and migrate Ecology business applications into the State Data Center and/or cloud environment by June 2021. We will need significant time and resources to implement this plan, because the Ecology data center equipment is at or nearing its end-of-life and must be replaced. We must also update over 220 business applications to meet the standards required in the new data center environments.

Using Customer Feedback and Performance Measures for Process Improvements

Ecology uses results from our biennial survey of permitted and inspected customers, along with other customer feedback, to identify opportunities for improvement. We combine the feedback provided with data from our performance measures to strategically focus where we work on improvements. Examples include improving electronic submittal options and processes, providing effective web-based information, and improving how we deliver information after inspections or updates to regulations.

Strategic Coordination

Strategic alignment between Ecology's program priorities, agency priorities, and Results WA goals helps guide the work of the agency. Strategic coordination provides opportunities to collaborate across Ecology programs and partner with state agencies and other organizations to share knowledge, data, and align processes. We will continue to look for opportunities to collaborate and identify more possibilities for partnerships to support environmental protection.

Communications

The Communication team's mission is to provide clear, accurate, and timely communications to explain the work Ecology does, why it matters, and the science behind it.

We support Ecology leadership, programs, and regions to help address some of the toughest environmental challenges of our time.

We lead proactive, strategic communications to explain, educate, and engage diverse audiences through multiple channels—the web, social media, news media, and public events.

Accessibility for all customers is a high priority. Following the transformation of Ecology's website, our homepage ranked in the top 1 percent among a million websites graded for accessibility.

Our website is our greatest communications and business channel. It's how we conduct business, provide services, and share news, information, and stories online. People rely on our website to get information about state environmental laws and permits, public meetings, comment periods, scientific findings, interactive modeling, databases and maps, and more.

With an emphasis on digital and visual communications, we continue our quest to modernize and leverage emerging technologies. We strive to serve our audiences who increasingly want more content delivered visually. This biennium, we will hire a professional digital designer to simplify complex information with graphics, infographics, videos, and other visual story-telling elements for web content and key public announcements.

We share environmental stories and news on our Twitter, Facebook, Instagram, YouTube, and blog channels. These tools allow us to provide timely, accurate, compelling, and visual information about the hard work our employees do to protect Washington's land, air, and water.

News media remains a key customer. As an agency, we average 70 media interviews a month. We pride ourselves in being timely

and responsive to reporters' needs and being accountable and transparent to our partners, policy leaders, and the public.

We provide round-the-clock communications and outreach support for oil and hazardous chemical spills and staff multi-jurisdiction incident response teams.

Financial Oversight and Management

Around 65 percent of Ecology's total budget is passed through to local partners for work in local communities throughout the state. Ecology uses over 60 different accounts, and we are the administrator of 54 of those accounts. It is a big job and a very high priority at Ecology to properly manage and provide oversight of these environmental, economic, and public health investments.

Model Toxics Control Act (MTCA) Reform

Our largest fund sources supporting work at Ecology come from the Hazardous Substance Tax (HST). These resources are deposited into the Model Toxics Control Act (MTCA) accounts.

The 2019 Legislature passed ESSB 5993, reforming the financial structure of the Model Toxics Control Program. This replaced three MTCA accounts with three new accounts and changed the HST structure for liquid petroleum products from a value-based tax to volume-based.

August 2019 was the first month of revenue collections under the new HST structure, and much is still unknown about how ESSB 5993 will affect actual revenue collections in the future. Ecology will be working with stakeholders, the Governor's Office, and Legislature to determine how best to use the funding available to address Washington's environmental priorities.

Financial Management System Updates

This biennium, Financial Services will continue working with our Information Technology Services Office to replace custom-built revenue systems with a modern, supportable, integrated financial management system. This new system will support the loan, receivable, fee billing, and cashiering functions into one integrated system. Once phase 1 is implemented, we will initiate phase 2, which will replace our existing federal grant receivable system and the system used to track expenses and revenue for the Toxics Cleanup Program. Phase 2 will leverage our investment in the integrated financial management system.

Activities, Results, and Performance Measures

Consolidated Activities

These activities share results with Ecology's environmental programs across the agency.

The administration activity supports Ecology functions by providing leadership, across-program support, and staff presence throughout the state. Administration manages Ecology's long-term financial health and provides information to support sound decision making and resource management by managers. Communication, education, and outreach tools play a major role in protecting and improving the environment. Administration staff serve as liaisons to Congress, the state Legislature, local governments, businesses, Indian tribes, and environmental and resident groups. Administration helps managers and employees create a safe, supportive, and diverse work environment by providing comprehensive human resource services. It also oversees information management (desktop and network services, application development, and data administration) and facility and vehicle management; maintains Ecology's centralized records and library resources; responds to public records requests; and provides mail services.

Expected Results

- Ecology managers, the governor, the State Auditor, the Office of Financial Management (OFM), and the Legislature have confidence in our financial information and can use it to make decisions affecting the environment.
- The public is educated about Ecology's work and role in environmental protection and understands the policies we are developing and the opportunities available to influence decisions.
- Washington's environmental laws and rules are improved through Ecology's relationships with legislators, local governments, businesses, Indian tribes, and environmental and resident groups.
- Ecology managers and supervisors possess the highest-quality communication, performance management, hiring, and leadership skills.
- The Ecology work environment reflects the diversity of the community it serves.
- Agency staff receive reliable, secure, and high-quality desktop support and network services.
- Customers have easy access to information.
- Facilities and vehicles are well-maintained, safe, and efficient.

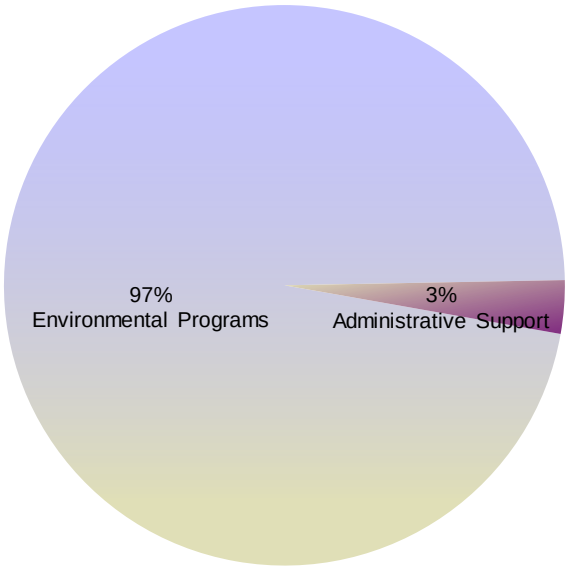
Performance Measures

- Number of agency audit findings.
- Percentage of Ecology-administered dedicated accounts with a positive cash balance at the end of each quarter.
- The number of pages printed and copied per quarter.
- Percentage of employees who are accident-free.
- Percentage of Ecology's workforce who self-identify as a person living with a disability.
- Percentage of Ecology's workforce who self-identify as a veteran.
- Percentage of current employees who have completed performance development plans.
- By survey, percentage of employees indicating they are usually or always satisfied with their jobs.
- Percentage of Ecology employees taking the annual employee survey.

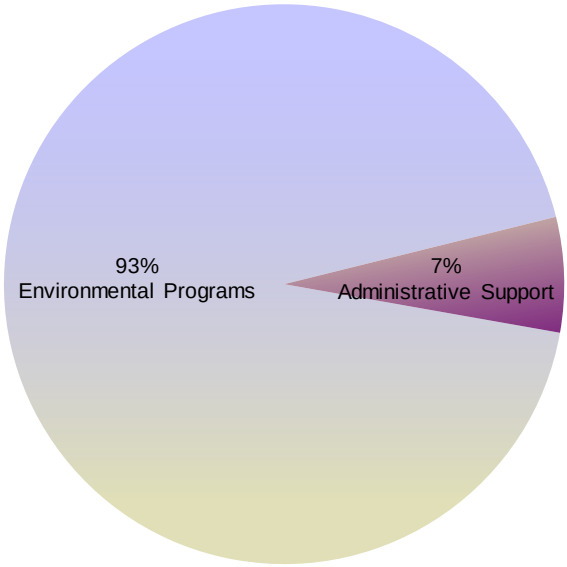
Agency Administration Program

Administration Program as a Percentage of Ecology's 2019-21 Biennium Budget

Operating & Capital Budget



Operating Budget Only



Environmental Programs:

Operating & Capital Budget = 97%

Operating Budget Only = 93%

- Water Quality
- Toxics Cleanup
- Shorelands & Environmental Assistance
- Water Resources
- Air Quality
- Solid Waste Management
- Hazardous Waste & Toxics Reduction
- Environmental Assessment
- Spill Prevention, Preparedness, and Response
- Nuclear Waste

Program A:

Operating & Capital Budget = 3%

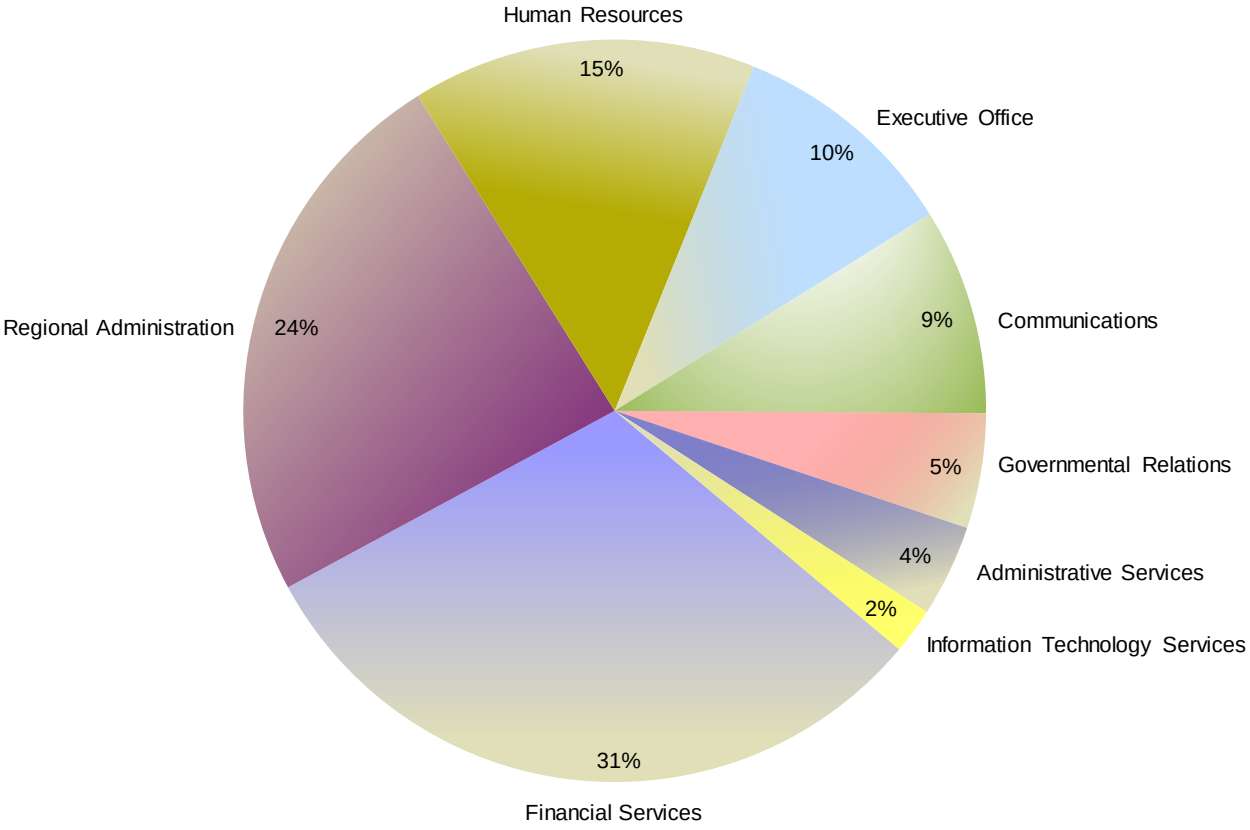
Operating Budget Only = 7%

- Financial Services (Budget, Fiscal, Contracts, Payroll, Accounting, and Purchasing)
- Regional Directors & Support
- Human Resources
- Executive (Director, Special Assistants, Tribal Relations)
- Communications
- Governmental Relations
- Administrative Services
- Information Technology Services

Note: Includes Central Business Services

Administration Program 2019-21 Biennium Operating Budget by Activities

Operating = $39.3 Million | Capital = $7.6 Million | Total = $46.8 Million | FTEs = 168.4

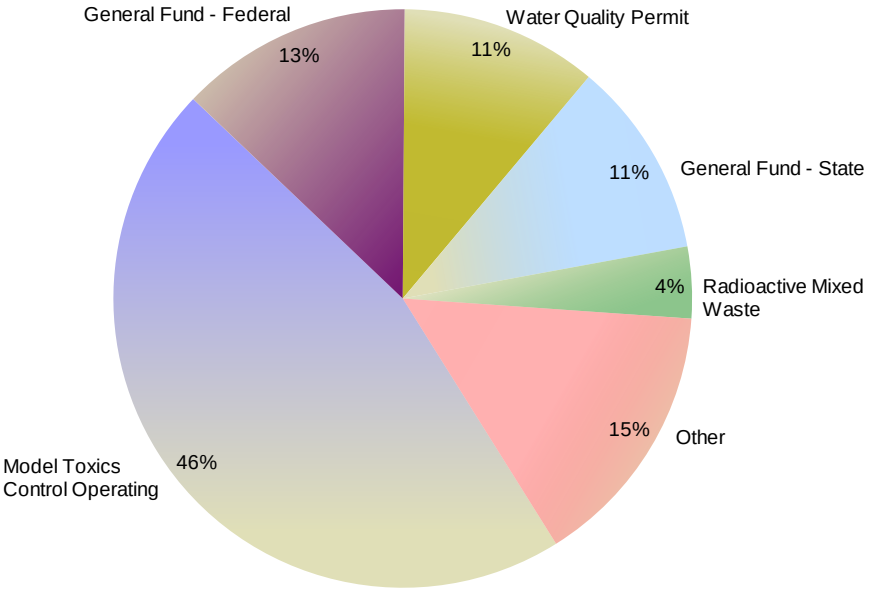


Activities	Amount	%	FTEs
Financial Services	$12,193,681	31%	56.0
Regional Administration	9,509,676	24%	48.0
Human Resources	6,052,515	15%	25.5
Executive Office	3,764,774	10%	10.7
Communications	3,700,676	9%	13.5
Governmental Relations	1,923,376	5%	6.5
Administrative Services	1,360,436	4%	5.4
Information Technology Services	763,866	2%	2.8
Agency Administration Operating Budget Total	**$39,269,000**	**100%**	**168.4**

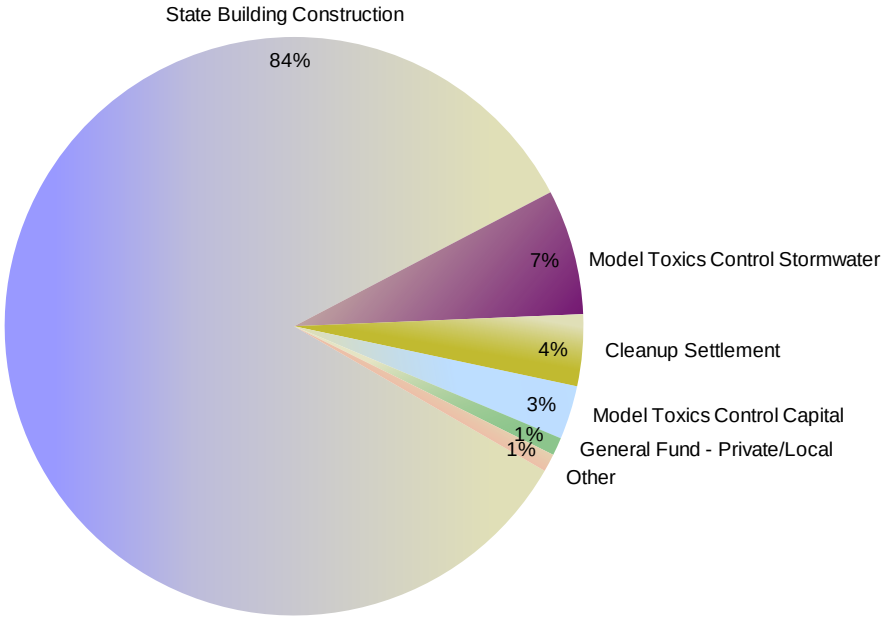
Administration[12] Program 2019-21 Biennium Budget by Fund Source

Operating = $39.3 Million | Capital = $7.6 Million | Total = $46.8 Million | FTEs = 168.4

Operating = $39.3 Million



Capital = $7.6 Million



[12] The agency *Administration Program* is supported by each fund source available to the Department of Ecology. Each fund contributes to the agency *Administration Program* in the same percentage that each fund contributes to the total of the environmental programs' salaries and benefits.

Operating Fund Sources	Amount	%
Model Toxics Control Operating (23P)	$17,982,000	46%
General Fund – Federal (001)	4,936,000	13%
Water Quality Permit (176)	4,185,000	11%
General Fund – State (001)	4,142,000	11%
Radioactive Mixed Waste (20R)	1,802,000	4%
Other:		
Waste Reduction, Recycling, & Litter Control (044)	1,006,000	<3%
General Fund – Private/Local (001)	976,000	<3%
Oil Spill Prevention (217)	829,000	<3%
Hazardous Waste Assistance (207)	577,000	<2%
Underground Storage Tank (182)	382,000	<1%
Water Pollution Control Revolving Administration (564)	370,000	<1%
Air Operating Permit (219)	329,000	<1%
Flood Control Assistance (02P)	282,000	<1%
Air Pollution Control (216)	264,000	<1%
Pension Funding Stabilization (489)	264,000	<1%
Reclamation (027)	263,000	<1%
Biosolids Permit (199)	200,000	<1%
Worker & Community Right-to-Know (163)	131,000	<1%
Watershed Restoration & Enhancement (22K)	89,000	<1%
Dedicated Marijuana (315)	78,000	<1%
Electronic Products Recycling (11J)	59,000	<1%
Freshwater Aquatic Weeds (222)	47,000	<1%
Wood Stove Education & Enforcement (160)	30,000	<1%
Product Stewardship Programs (16T)	19,000	<1%
Paint Product Stewardship (23W)	15,000	<1%
Aquatic Algae Control (10A)	10,000	<1%
Photovoltaic Module Recycling (22G)	2,000	<1%
Operating Budget Total	**$39,269,000**	**100%**

Capital Fund Sources[13]	Amount	%
State Building Construction (057)	$6,378,110	84%
Model Toxics Control Stormwater (23R)	497,558	7%
Cleanup Settlement (15H)	274,749	4%
Model Toxics Control Capital (23N)	246,651	3%
General Fund – Private/Local (001)	106,552	<2%
Other:		
Waste Tire Removal (08R)	19,594	<1%
Air Pollution Control (216)	16,468	<1%
General Fund – Federal (001)	13,813	<1%
Capital Budget Total	**$7,553,495**	**100%**

Administration Program Operating & Capital Budget Total	**$46,822,495**

[13] Capital funds include indirect and facility capital projects for Lacey headquarters roof replacement ($3,089,000) and preservation ($250,000), as well as Eastern Regional Office improvements ($1,966,000) and re-appropriations.

Ecology's Data – Where It Comes From

This publication relies on financial data for tables and graphs. Operating data is based on initial appropriations from the enacted 2019-21 Biennial Operating Budget. Capital data is based on agency allotments from the initial enacted 2019-21 Biennial Capital Budget. Following are the specific data sources.

Agency Level – Operating

Operating funds by account and program are based on the enacted biennial operating budget appropriations, which match Ecology's initial approved allotments (spending plans) and unallotted funds from the Office of Financial Management (OFM).

Operating funds pass through are based on allotments for grants and other pass-through functions from initial approved allotments.

Agency Level – Capital

Capital funds by account and program are based on OFM approved allotments for the initial enacted 2019-21 Biennial Capital Budget. They include new appropriations and reappropriations. They do not include unallotted or reserve funds. Unallotted funds are primarily appropriations for future project expenditures that will not be expended in the current biennium.

Capital funds pass-through are based on allotments for grants and contracts as approved by OFM. They include new appropriations and reappropriations. They do not include unallotted funds.

Program Level – Operating

Operating funds by activity are based on activity inventory funding amounts for the enacted biennial budget as approved by OFM.

Operating funds by account are based on initial biennial OFM approved allotments.

Program Level – Capital

Capital funds by account are based upon OFM approved allotments for the enacted 2019-21 Biennial Capital Budget. It includes new appropriations and reappropriations. It does not include unallotted or reserve funds.

2019-21 Operating Pass-through Detail by Program

The operating pass-through amount was determined based on total operating initial allotments that were identified as pass-through grants or Washington Conservation Corp and Ecology Youth Corp staff costs that are placed in local communities throughout the state via contractual agreements. This total was divided by the operating total appropriation to determine the pass-through percentage.

Purpose/Grants	Programs	Operating
Local Solid Waste Financial Assistance (MTCA-Op)	Solid Waste Management	$10,000,000
WCC Crews Salaries	Shorelands & Env. Asst.	8,975,436
NEP Stormwater Strategic Initiative EPA (GF-Federal)	Water Quality	8,714,118
Stormwater Grants (MTCA-Op)	Water Quality	8,630,000
Nonpoint Source Grants EPA 319 (GF-Federal)	Water Quality	7,265,366
Local Partner Core Operations Grants to Local Air Authorities (GF-Federal & MTCA-Op)	Air Quality	6,136,656
NEP Watershed Grants EPA (GF-Federal)	Shorelands & Env. Asst.	4,558,295
Community Litter Cleanup Program (WRRLCA)	Solid Waste Management	3,700,000
Local Source Control (LSC) (MTCA-Op)	Hazardous Waste & Toxics Reduction	3,067,176
Oil Spill Response Equipment Caches (MTCA-Op)	Spill Prev., Prep. & Resp.	3,050,000
Shoreline Master Program Grants (MTCA-Op)	Shorelands & Env. Asst.	3,000,000
Public Participation Grants (MTCA-Op)	Solid Waste Management	2,426,587
EYC Crews Salaries (WRRLCA)	Solid Waste Management	1,483,205
Environmental Restoration Projects (Coastal Protection)	Spill Prev., Prep. & Resp.	1,064,000
Freshwater Aquatic Weed Grants (Fr. Aquatic Weeds)	Water Quality	998,500
Padilla Bay NWS MRC Grants	Shorelands & Env. Asst.	910,000
DERA Clean Diesel Grant Program Grants to School Districts, Transit Authorities, and Local Air Authorities (GF-Federal)	Air Quality	902,039
Waste Reduction & Recycling Edu. Grants (WRRLCA)	Solid Waste Management	610,000
Aquatic Algae Grants (Aquatic Algae Control)	Water Quality	414,710
Prevent Nonattainment Grants to community organizations to support local efforts to prevent violations of federal standards in high-risk areas (MTCA-Op)	Air Quality	381,000
Local Partner PM 2.5 Grants to Local Air Authorities (GF-Federal)	Air Quality	317,472
Recycling Markets (WRRLCA)	Solid Waste Management	300,000
Lower Columbia Estuary Partnership (MTCA-Op)	Water Quality	264,000
Flood Control Assistance Emergency Grants (FCAA)	Shorelands & Env. Asst.	250,000
Food Waste Reduction (WRRLCA)	Solid Waste Management	250,000
Wood stove Education & Enforcement Grants to Local Air Authorities (Wood Stove Ed. & Enforce.)	Air Quality	246,052
Total		**$77,914,612**

Ecology Administered Accounts

The Department of Ecology uses up to 62 accounts and is the administering agency for 54 of these accounts. Each account description includes the RCW authority, fund manager, account purpose, authorized uses, and revenue source. Following is a numeric listing of the accounts Ecology administers. For a more detailed description of each account, you can find additional information in the alphabetical listing starting on the following page.

In 2019, the legislature passed ESSB 5993, which resulted in the creation of three new MTCA accounts: 23P Model Toxics Control Operating, 23N Model Toxics Control Capital, and 23R Model Toxics Control Stormwater. ESSB 5993 eliminated the prior MTCA accounts: 173 State Toxics Control Account, 174 Local Toxics Control Account, and 19G Environmental Legacy Stewardship Account. In 2019, the legislature also passed SHB 1290, which created 23V Voluntary Cleanup Account, as well as SHB 1652, which created 23W Paint Product Stewardship Account.

027 – Reclamation
02P – Flood Control Assistance
032 – State Emergency Water Projects Revolving
044 – Waste Reduction, Recycling, & Litter Control
051 – State and Local Improvements Revolving – Waste Disposal Facilities (Ref. 26)
055 – State and Local Improvements Revolving – Waste Disposal Facilities (Ref. 39)
05W – State Drought Preparedness
072 – State and Local Improvements Revolving – Water Supply Facilities (Ref. 38)
07C – Vessel Response
08R – Waste Tire Removal
10A – Aquatic Algae Control
10G – Water Rights Tracking System
10P – Columbia River Basin Water Supply Development
116 – Basic Data
11J – Electronic Products Recycling
11W – Water Quality Capital
125 – Site Closure
15H – Cleanup Settlement
15K – Columbia River Water Delivery
160 – Wood Stove Education and Enforcement
16T – Product Stewardship Programs
16V – Water Rights Processing
176 – Water Quality Permit
182 – Underground Storage Tank
18B – Columbia River Basin Taxable Bond Water Supply Development
199 – Biosolids Permit
19K – Yakima Integrated Plan Implementation
19N – Diesel Idle Reduction
207 – Hazardous Waste Assistance
20B – Brownfield Redevelopment Trust Fund
20C – Yakima Integrated Plan Implementation Taxable Bond
20R – Radioactive Mixed Waste
216 – Air Pollution Control
217 – Oil Spill Prevention
219 – Air Operating Permit
21B – Chehalis Basin
21H – Water Treatment Plant Operator Certification
222 – Freshwater Aquatic Weeds
223 – Oil Spill Response
22G – Photovoltaic Module Recycling
22K – Watershed Restoration and Enhancement
23N – Model Toxics Control Capital Account
23P – Model Toxics Control Operating Account
23R – Model Toxics Control Stormwater Account
23V – Voluntary Cleanup Account
23W – Paint Product Stewardship Account
296 – Columbia River Basin Water Supply Revenue Recovery
366 – Watershed Restoration and Enhancement Bond
377 – Watershed Restoration and Enhancement Taxable Bond
408 – Coastal Protection
500 – Perpetual Surveillance and Maintenance
564 – Water Pollution Control Revolving Administration
565 – Yakima Integrated Plan Implementation Revenue Recovery
727 – Water Pollution Control Revolving

See the following page for accounts Ecology uses, but is not the administering agency.

Ecology uses the following accounts, but is not the administering agency:

001 – General Fund
03K – Industrial Insurance Premium Refund
057 – State Building Construction
163 – Worker and Community Right to Know
277 – State Agency Parking
355 – State Taxable Building Construction
489 – Pension Funding Stabilization Account
746 – Hanford Area Economic Investment

Administered Accounts – Detail

Alphabetical Listing

Air Operating Permit Account — Fund #219 — RCW 70.94.015

Fund Manager: Air Quality Program. Contact Matthew Vandrush-Borgacz, 360-407-6646

Purpose: To reduce air pollution from large industrial sources.

Authorized Use: To issue permits to major air pollution sources and for small business technical assistance as it relates to the air operating permit program.

Revenue Source: Permit fees are collected from large industrial air pollution sources. These annual fees are set based on source emissions and complexity.

Air Pollution Control Account — Fund #216 — RCW 70.94.015

Fund Manager: Air Quality Program. Contact Matthew Vandrush-Borgacz, 360-407-6646

Purpose: To reduce air pollution from agricultural burning, small industrial sources (for example, dry cleaners, rock crushers, coffee roasters), and greenhouse gas emitters.

Authorized Use: To issue permits for agricultural burning and small industrial air pollution sources, to fund agricultural burning alternatives research, and to fund a greenhouse gas reporting program.

Revenue Source: Permit fees are collected for burning (charged on a per-acre basis) and initial or modified industrial air pollution sources (charged on a per-hour basis). In addition, annual fees are charged for small industrial air pollution sources and greenhouse gas emission sources.

Aquatic Algae Control Account — Fund #10A — RCW 43.21A.667

Fund Manager: Water Quality Program. Contact Rebecca Pittman, 360-407-7544

Purpose: To prevent, remove, or manage freshwater and saltwater aquatic blue-green algae.

Authorized Use: To provide grants, grant management, and technical assistance to local governments for the prevention, removal, and management of freshwater and saltwater aquatic blue-green algae.

Revenue Source: This fee is charged in conjunction with annual boat license fees collected by the Department of Licensing. The charge is $1 per license. Fee set by statute.

Basic Data Account — Fund #116 — RCW 43.21A.067

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To gather stream flow, groundwater, and water quality data or other hydrographic information.

Authorized Use: The fund shall be expended on a matching basis with the U.S. Geological Survey for the purpose of obtaining additional basic information needed for an intelligent inventory of water resources in the state.

Revenue Source: Special purpose account for private individuals to receive stream flow, groundwater, and water quality data, or other hydrographic information. Ecology is required to contract for the information with the U.S. Geological Survey.

Alphabetical Listing

Biosolids Permit Account — Fund #199 — RCW 79.95J.025

Fund Manager: Solid Waste Management Program. Contact My-Hanh Mai, 360-407-6996

Purpose: To maximize the beneficial use of biosolids while at the same time protecting human health and the environment from pollutants and microorganisms that can be found in the material.

Authorized Use: Administer permit applications, review related plans and documents, monitor, evaluate, conduct inspections, oversee performance of delegated program elements, and provide technical assistance.

Revenue Source: Facilities that handle and manage biosolids in the state of Washington, including, but not limited to, wastewater treatment facilities, receiving-only facilities, and septage management facilities are required to pay an annual biosolids permit fee. There is an annual fee of $956.09 plus an additional fee for each residential equivalent. The fee for each residential equivalent ranges from $0.081 to $0.342, depending on the type and size. New biosolids facilities also pay a one-time review fee of $2,868.28.

Brownfield Redevelopment Trust Fund Account — Fund #20B — RCW 70.105D.140

Fund Manager: Toxics Cleanup Program. Contact Angie Wirkkala, 360-407-7219

Purpose: For remediation and cleanup activities at the specific redevelopment opportunity zones or specific brownfield renewal authority for which moneys were deposited in the account.

Authorized Use: The moneys may be used only by local governments for remedial actions approved by Ecology under the Model Toxics Control Act, Chapter 70.105D RCW. To receive moneys from the account, local governments must meet the eligibility and other requirements governing the Remedial Action Grant Program, which are codified in Chapter 173-322A WAC.

Revenue Source: Money deposited voluntarily or appropriated by the Legislature for redevelopment opportunity zones or brownfield renewal authorities, and receipts from settlements or court orders directing payment to the account for a specific redevelopment opportunity zone to resolve liability under the Model Toxics Control Act (this account retains interest).

Chehalis Basin Account — Fund #21B — RCW 43.21A.733

Fund Manager: Shorelands and Environmental Assistance Program. Contact Jessica S. Moore, 360-407-6994

Purpose: For the operation of the office of Chehalis Basin and Chehalis river basin-related flood hazard reduction and habitat recovery activities per RCW 43.21A.731.

Authorized Use: Ecology administers the Office of Chehalis Basin, in order to aggressively pursue the implementation of an integrated strategy including funding for long-term flood damage reduction and aquatic species restoration in the Chehalis river basin.

Revenue Source: Receipts from direct appropriations from the Legislature, including the proceeds of tax exempt bonds, or moneys directed to the account as required by RCW 43.21A.733. No revenue is estimated at this time.

Cleanup Settlement Account — Fund #15H — RCW 70.105D.130

Fund Manager: Toxics Cleanup Program. Contact Angie Wirkkala, 360-407-7219

Purpose: To conduct remedial actions at a specific facility or to assess or address the injury to natural resources caused by the release of hazardous substances from a specific facility.

Authorized Use: Expenditures 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.

Revenue Source: Receipts from settlements or court orders that resolve a person's liability or potential liability (this account retains interest).

Alphabetical Listing

Coastal Protection Account — Fund #408 — RCW 90.48.390

Fund Manager: Spill, Prevention, Preparedness, and Response Program. Contact Tra Thai, 360-407-7454

Purpose: To provide funds for the restoration of natural resources and the enhancement of prevention, preparedness, and response activities related to oil and hazardous material spills.

Authorized Use: These funds are used for environmental restoration and enhancement projects, investigations of the long-term effects of oil spills, and the development and implementation of aquatic land geographic information systems.

Revenue Source: Penalty payments and payments from oil spill damage assessments received from parties responsible for oil spills and water pollution.

Columbia River Basin Taxable Bond Water Supply Development Account — Fund #18B — RCW 90.90.090

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To fund projects or activities that resolve water conflicts in the Columbia River Basin through taxable bond sales and investment in storage, conservation, or access to water supplies.

Authorized Use: Authorized through 2SHB 1803 in the 2011 Legislative Session. Intended to fund projects owned or used by the federal government, non-profit corporations, or private entities. Two-thirds of the authorized funds are for the development of new storage opportunities; one-third of the authorized funds are for projects that conserve water.

Revenue Source: Direct appropriations from the Legislature and up to $200 million of state bonds (in combination with the Columbia River Basin Water Supply Development Account) have been authorized for grants to local jurisdictions for new storage and conservation projects. The initial $200 million authorized in 2006 has been fully obligated to existing projects. (This account retains interest.)

Columbia River Basin Water Supply Development Account — Fund #10P — RCW 90.90.010

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To fund projects or activities that resolve water conflicts in the Columbia River Basin through non-taxable bond sales and investment in storage, conservation, or access to water supplies.

Authorized Use: Authorized in 2006. Intended to fund projects owned or used by state or local governments. Two-thirds of the authorized funds are for the development of new storage opportunities; one-third of the authorized funds are for projects that conserve water.

Revenue Source: Direct appropriations from the Legislature and up to $200 million of state bonds (in combination with the Columbia River Basin Taxable Bond Water Supply Development Account) have been authorized for grants to local jurisdictions for new storage and conservation projects. The initial $200 million authorized in 2006 has been fully obligated to existing projects. (This account retains interest.)

Alphabetical Listing

Columbia River Basin Water Supply Revenue Recovery Account — Fund #296 — RCW 90.90.100

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To resolve water conflicts in the Columbia River Basin through recovery of certain costs for water service contracts or other water supply projects, which may be reinvested in storage, conservation, or access to water supplies.

Authorized Use: Authorized through 2SHB 1803 in the 2011 Legislative Session. May be used to assess, plan, and develop new storage, improve or alter operations of existing storage facilities, implement conservation projects, develop pump exchanges, or any other actions designed to provide access to new water supplies within the Columbia River Basin for both instream and out-of-stream uses.

Revenue Source: Water service contracts, permitting new water supply and/or loans related to the cost to develop new water supplies. Specific repayment terms depend on each individual agreement.

Columbia River Water Delivery Account — Fund #15K — RCW 90.90.070

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To resolve water conflicts in the Columbia River Basin through new releases of Lake Roosevelt water of approximately eighty-two thousand five hundred acre feet of water, increasing to no more than one hundred thirty-two thousand five hundred acre feet of water in drought years, will bolster the state economy. Intended purposes include new surface water supplies for farmers to replace the use of diminishing groundwater in the Odessa aquifer; new water supplies for municipalities with pending water right applications; enhanced certainty for agricultural water users with water rights that are interruptible during times of drought; and water to increase flows in the river when salmon need it most.

Authorized Use: Authorized through E2SSB 6874 in the 2008 Legislative Session. May be used to implement the agreement between the governor, the Legislature, the Confederated Tribes of the Colville Reservation and the Spokane Tribe of Indians to support additional releases of water from Lake Roosevelt. Because the sovereign and proprietary interests of these tribal governments are directly affected by water levels in Lake Roosevelt, the state intends to share a portion of the benefits derived from Lake Roosevelt water releases and to mitigate for any impacts such releases may have upon the tribes.

Revenue Source: The account consists of all moneys transferred or appropriated to the account by law.

Diesel Idle Reduction Account — Fund #19N — RCW 70.325.040

Fund Manager: Air Quality Program. Contact Matthew Vandrush-Borgacz, 360-407-6646

Purpose: To provide loans with low or no interest to loan recipients for the purpose of reducing exposure to diesel emissions and improving public health by investing in diesel idle emission reduction technologies and infrastructure.

Authorized Use: Low or no interest loans to local and state governments to fund projects that reduce exposure to diesel emissions and the associated administration costs of that loan program.

Revenue Source: To date there has been no revenue or appropriation to this account. After an initial appropriation, the remittances from loan recipients (principal and interest) would be deposited into the account to fund future loans.

Alphabetical Listing

Electronic Products Recycling Account — Fund #11J — RCW 70.95N.130

Fund Manager: Solid Waste Management Program. Contact My-Hanh Mai, 360-407-6996

Purpose: To provide the public with free collection, transportation, and recycling of covered electronic products, including televisions, computers, monitors, and e-readers.

Authorized Use: Oversight of the electronic products recycling program (E-Cycle WA), review and approve plans and plan revisions, monitor, evaluate, and implement the regulations set for the E-Cycle WA program in rule.

Revenue Source: Manufacturers of televisions, computers, monitors, and e-readers who sell their products within or into (as with internet sales) the state of Washington pay a tier-structured fee based on their percentage of the total weight market share in the state of Washington. Depending on the market for the time period in question, manufacturers may move from one tier to another. Ecology is required to adjust the fee rates annually to provide equity to manufacturers based on their market shares. The seven-tiered structure fee ranges from $0 in tier-7 to $34,092 in tier-1 (Final rates for calendar year 2020).

Flood Control Assistance Account — Fund #02P — RCW 86.26.007

Fund Manager: Shorelands and Environmental Assistance Program. Contact Jessica S. Moore, 360-407-6994

Purpose: To provide grants and technical assistance to local governments for flood damage reduction projects and comprehensive flood hazard management planning.

Authorized Use: Ecology administers the Flood Control Assistance Account Program (FCAAP), providing grants and technical assistance to local governments for flood damage reduction projects and comprehensive flood hazard management planning. Ecology staff assists in the development and approval of local Comprehensive Flood Hazard Management Plans, feasibility studies, public awareness programs, and flood hazard warning programs. Ecology also inspects construction of flood damage reduction projects. Ecology is the state's coordinating agency for the National Flood Insurance Program (NFIP) and provides assistance and support to the 289 communities enrolled in the NFIP. Many of the projects funded through FCAAP grants require detailed hydrologic and engineering studies. Ecology staff must verify that these studies are properly done and meet standard practices.

Revenue Source: $4 million per biennium transfer from State General Fund as required by RCW 86.26.007.

Freshwater Aquatic Weeds Account — Fund #222 — RCW 43.21A.650

Fund Manager: Water Quality Program. Contact Rebecca Pittman, 360-407-7544

Purpose: To prevent and control or manage invasive freshwater aquatic weeds.

Authorized Use: Funds are used for grants, grant management, and technical assistance to local governments for the prevention, removal, and management of invasive freshwater aquatic weeds.

Revenue Source: This fee is charged in conjunction with annual boat trailer license fees collected by the Department of Licensing. The charge is $3 per license. Fee set by statute.

Hazardous Waste Assistance Account — Fund #207 — RCW 70.95E.080

Fund Manager: Hazardous Waste and Toxics Reduction Program. Contact Vince Chavez, 360-407-6561

Purpose: To provide technical assistance and compliance education assistance to hazardous substance users and waste generators.

Authorized Use: Assist businesses with the development and implementation of plans for reducing the use of toxic substances and generation of hazardous waste. Develop and distribute educational information on waste reduction to all businesses that use toxic substances or generate hazardous waste.

Revenue Source: Annual fees charged to businesses that generate hazardous waste (RCW 70.95E.020) and businesses required to prepare waste reduction plans under RCW 70.95C.200 (RCW 70.95E.030).

Alphabetical Listing

Model Toxics Control Capital Account — Fund #23N — RCW 70.105D.200

Fund Manager: Toxics Cleanup Program. Contact Angie Wirkkala, 360-407-7219

Purpose: Cleanup toxic sites and address other toxic pollution and contamination issues qualifying for funding under the Model Toxics Control Act.

Authorized Use: Funding is used for capital expenditures to carry out the Model Toxics Control Act, including remedial actions, solid waste plans and programs, toxic air pollutant reduction programs, hazardous waste plans and programs, and plastic or polystyrene foam debris clean-up activities.

Revenue Source: Revenue comes from the hazardous substance tax (HST). A volume-based HST is applied to all petroleum products that can be measured on a per-barrel basis on the first possession in the state of Washington. After first depositing $50 million per biennium into the Motor Vehicle Fund, revenue collected by the Department of Revenue from this tax is deposited 60 percent to the MTCA Operating Account, 25% to the MTCA Capital Account, and 15% to the MTCA Stormwater Account. The tax rate increases annually by the implicit price deflator for nonresidential structures beginning July 1, 2020. A value-based HST of seven-tenths of one percent of the wholesale value is applied to other petroleum products that cannot be measured by volume on the first possession in the state of Washington. The revenue from this tax is collected by the Department of Revenue and deposited to the MTCA Capital Account. This account also earns revenue through Cost Recovery and the Voluntary Cleanup Program (VCP). Cost Recovery is when Ecology recovers its expenditures from potentially liable parties for the cost of providing cleanup oversight at properties under an order or decree. The Voluntary Cleanup Program (VCP) offers a service to customers who request review of a planned or completed cleanup to determine whether there should be any further action taken. Other revenues include certain fines and penalties issued against persons or businesses, which have not complied with environmental contamination and cleanup laws.

Model Toxics Control Operating Account — Fund #23P — RCW 70.105D.190

Fund Manager: Central Budget Office. Contact Lars Andreassen, 360-407-7049

Purpose: Address toxic pollution and contamination issues qualifying for funding under the Model Toxics Control Act.

Authorized Use: Funding is used for operating expenditures to carry out the Model Toxics Control Act, including toxic cleanup, toxic pollution prevention, hazardous and solid waste management, public participation grants, oil spill prevention and response, air quality programs, and other water and environmental health protection programs.

Revenue Source: Revenue comes from the volume-based hazardous substance tax (HST). This tax is applied to all petroleum products that can be measured on a per-barrel basis on the first possession in the state of Washington. After first depositing $50 million per biennium into the Motor Vehicle Fund, revenue collected by the Department of Revenue from this tax is deposited 60 percent to the MTCA Operating Account, 25% to the MTCA Capital Account, and 15% to the MTCA Stormwater Account. The tax rate increases annually by the implicit price deflator for nonresidential structures beginning July 1, 2020. Other revenues include penalties issued against persons or businesses that have not complied with environmental contamination laws.

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Model Toxics Control Stormwater Account — Fund #23R — RCW 70.105D.210

Fund Manager: Water Quality Program. Contact Kim Wagar, 360-407-6614

Purpose: Stormwater pollution control under the Model Toxics Control Act.

Authorized Use: Funding is used to carry out programs directly relating to stormwater pollution control.

Revenue Source: Revenue comes from the volume-based hazardous substance tax (HST). This tax is applied to all petroleum products that can be measured on a per-barrel basis on the first possession in the state of Washington. After first depositing $50 million per biennium into the Motor Vehicle Fund, revenue collected by the Department of Revenue from this tax is deposited 60 percent to the MTCA Operating Account, 25% to the MTCA Capital Account, and 15% to the MTCA Stormwater Account. The tax rate increases annually by the implicit price deflator for nonresidential structures beginning July 1, 2020.

Oil Spill Prevention Account — Fund #217 — RCW 90.56.510

Fund Manager: Spill, Prevention, Preparedness, and Response Program. Contact Tra Thai, 360-407-7454

Purpose: To provide funding for oil spill prevention, preparedness, and response activities.

Authorized Use: These funds are used for: routine responses to spills (currently funded from MTCA); development of rules and policies; facility and vessel plan review and approval; contingency plan review and approval, oil spill drills; oil transfer inspections; vessel and rail traffic risk assessment, investigations; enforcement; interagency coordination; and public outreach and education.

Revenue Source: A four-cent tax on the first possession of each barrel of crude oil or petroleum products imported into and consumed in Washington State from vessel or rail and subject to an export tax credit.

Oil Spill Response Account — Fund #223 — RCW 90.56.500

Fund Manager: Spill, Prevention, Preparedness, and Response Program. Contact Tra Thai, 360-407-7454

Purpose: To provide funds for responding to and cleaning up oil spills when state response costs are expected to exceed $1,000.

Authorized Use: These funds are used for: oil spill response, containment, wildlife rescue, oil cleanup and disposal, and associated costs; natural resource damage assessments and related activities; interagency coordination and public information related to a response; appropriate travel, goods and services, contracts, and equipment related to a response.

Revenue Source: A one-cent tax on the first possession of each barrel of crude oil or petroleum products imported into and consumed in Washington State from vessel or rail and subject to an export tax credit.

Paint Product Stewardship Account — Fund #23W — RCW 70.375.100

Fund Manager: Solid Waste Management Program. Contact My-Hanh Mai, 360-407-6996

Purpose: To provide a convenient and environmentally sound collection and recycling program for architectural paint in Washington state.

Authorized Use: Administration, oversight, and enforcement of the paint stewardship program.

Revenue Source: A paint stewardship organization representing producers of architectural paint sold in Washington state is required to pay an annual fee for the purposes of funding Ecology's costs to implement and enforce the paint stewardship program.

Alphabetical Listing

Perpetual Surveillance and Maintenance Account — Fund #500 — RCW 43.200.080

Fund Manager: Nuclear Waste Program. Contact Steve Moore, 360-407-7212

Purpose: To fund surveillance and maintenance of the Commercial Low-Level Radioactive Waste Disposal site at Hanford after closure.

Authorized Use: Funds will be transferred to the Federal Government unless the state purchases the land at lease termination.

Revenue Source: Disposal fee of $1.75 per cubic foot of disposed commercial low-level radioactive waste. (This account retains interest.)

Photovoltaic Module Recycling Account — Fund #22G — RCW 70.355.010

Fund Manager: Solid Waste Management Program. Contact My-Hanh Mai, 360-407-6996

Purpose: To provide a convenient, safe, and environmentally sound system for recycling photovoltaic modules, minimizing hazardous waste, and recovering commercially valuable materials.

Authorized Use: Oversight of the photovoltaic module recycling program including guidance development, plan review and approval, enforcement, and rulemaking.

Revenue Source: A one-time flat fee is required from participating manufacturers to recover costs associated with the plan guidance, review, and approval process. In addition to the flat fee, an annual fee may be charged based on the manufacturer's pro rata share of sales in Washington to cover Ecology's annual program implementation costs.

Product Stewardship Programs Account — Fund #16T — RCW 70.275.130

Fund Manager: Solid Waste Management Program. Contact My-Hanh Mai, 360-407-6996

Purpose: To provide a convenient and environmentally sound collection and recycling program for mercury-containing lights.

Authorized Use: Oversight of the mercury containing lights collection and recovery program, including review and approve plans and plan revisions, monitor and evaluate program operations, and implement the regulations.

Revenue Source: Producers of mercury-containing lights are required to pay an annual fee of $3,000 per manufacturer.

Radioactive Mixed Waste Account — Fund #20R — RCW 70.105.280

Fund Manager: Nuclear Waste Program. Contact Steve Moore, 360-407-7212

Purpose: To fund implementation of the Hazardous Waste Management Act at facilities that manage radioactive mixed wastes. The HWMA provides a comprehensive statewide framework for the planning, regulation, control, and management of hazardous waste which will prevent land, air, and water pollution and conserve the natural, economic, and energy resources of the state.

Authorized Use: State costs to carry out the duties of the HWMA at radioactive mixed waste facilities, including permitting, compliance, and necessary office, staff and support functions.

Revenue Source: Annual billing to Radioactive Mixed Waste Facility operators. Hanford (USDOE), and two non-Hanford facilities.

Alphabetical Listing

Reclamation Account — Fund #027 — RCW 89.16.020

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To provide for the reclamation and development of such lands in the state of Washington as shall be determined to be suitable and economically available for reclamation and development as agricultural lands.

Authorized Use: To conduct a regulatory program for well construction as provided in Chapter 18.104 RCW. Also, to independently (or in cooperation with the federal government) initiate stream gauging activities, adjudications and conduct investigations and natural resource hydrographic, topographic, river, underground water, mineral and geological surveys for potential hydro power projects as provided in RCW 90.16.060. In addition, funds are used to support staff work at the Departments of Ecology and Fish and Wildlife on Federal Energy Regulatory Commission hydro facility relicensing.

Revenue Source: Fees for well drilling and well driller's license (RCW 18.104.055) and for power licensing (RCWs 90.16.050 and RCW 90.16.060).

Site Closure Account — Fund #125 — RCW 43.200.080

Fund Manager: Nuclear Waste Program. Contact Steve Moore, 360-407-7212

Purpose: To fund final closure and decommissioning the Commercial Low-Level Radioactive Waste Disposal site at Hanford.

Authorized Use: Funds have been used for an environmental impact study, a site investigation, design of a cover for filled trenches, and will be used for final closure activities.

Revenue Source: Users of the facility and site pay permit fees based on disposal volumes. Revenue also comes from repayment of a $13.8 million fund transfer from the Site Closure Account to the State General Fund, which started in July 2008. Payment amounts are increased annually by the Implicit Price Deflator. (This account retains interest.)

State & Local Improvements Revolving Account – Waste Disposal Facilities, 1980 (Ref. 39) — Fund #055 — RCW 43.99F

Fund Manager: Water Quality Program. Contact Kim Wagar, 360-407-6614

Purpose: Authorizes the Department of Ecology to provide grants and loans for state and local improvements to wastewater treatment facilities, agricultural pollution abatement facilities, and lake restoration projects.

Authorized Use: Grants and loans to local governments.

Revenue Source: Revenue from the State and Local Improvements Revolving Account comes from the sale of bonds and principle and interest payments from loans awarded to local governments for construction of water pollution control facilities and projects that reduce pollution in Washington's waterways.

State & Local Improvements Revolving Account – Waste Disposal Facilities (Ref. 26) — Fund #051 — RCW 43.83B

Fund Manager: Water Quality Program. Contact Kim Wagar, 360-407-6614

Purpose: Authorizes the Department of Ecology to provide grants and loans for state and local facilities and systems for the collection, treatment, control, or disposal of solid or liquid waste materials.

Authorized Use: Grants and loans to local governments.

Revenue Source: Revenue from the State and Local Improvements Revolving Account comes from the sale of bonds and principle and interest payments from loans awarded to local governments for construction of water pollution control facilities and projects that reduce pollution in Washington's waterways.

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State & Local Improvements Revolving Account – Water Supply Facilities (Ref. 38) Fund #072 RCW 43.83B.030

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To provide grants and loans to agricultural users for water supply facilities.

Authorized Use: Provides grants and loans to applicants for water supply facilities for agricultural use alone or in combination with fishery, recreational, or other beneficial uses of water to assist those entities in improving their efficiency of water use beyond current levels.

Revenue Source: The Legislature authorized $75 million of general obligation bonds for loans for water supply facilities. The entire $75 million authorized has been expended. The revenue deposited to this account includes proceeds from the sale of bonds plus payment of principle and interest on loans made to agricultural users.

State Drought Preparedness Account Fund #05W RCW 43.83B.430

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To provide assistance for drought preparedness activities and projects.

Authorized Use: To provide grants and loans to public entities to alleviate drought conditions.

Revenue Source: Funds are only transferred to this account when there is a state-declared drought. Recent state drought declarations were in 2001, 2005, 2015 and 2019. In 2001, funds were transferred into the account from the State General Fund. In 2005, funds were transferred from the State Taxable Building Construction Account. In 2015, funds were transferred into the account from the State General Fund. Revenues also include payments of principle and interest on loans. In 2019, the drought preparedness account was not used as funding was appropriated to the agency directly from the State General Fund.

State Emergency Water Projects Revolving Account Fund #032 RCW 43.83B.360

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To provide for emergency action during a drought declaration.

Authorized Use: To provide emergency powers to the Department of Ecology to enable it to take actions in a timely and expeditious manner to alleviate hardships and reduce burdens on various water users and uses arising from drought conditions. As used in this chapter, "drought condition" means that the water supply for a geographical area or for a significant portion of a geographical area is 75 percent below normal and the water shortage is likely to create undue hardships for various water uses and users.

Revenue Source: The initial $18 million general obligation bonds established for projects funded from this account have been expended. In 2001 and 2005, there were transfers from the State General Fund to this account for drought projects. Interest and principle paid on loans to local jurisdictions for drought relief are also deposited into this account.

Underground Storage Tank Account Fund #182 RCW 90.76.100

Fund Manager: Toxics Cleanup Program. Contact Angie Wirkkala, 360-407-7219

Purpose: To conduct inspections and provide technical assistance aimed to prevent leaks that cause underground storage tank contamination into soil and groundwater.

Authorized Use: To adopt and enforce rules establishing requirements for all underground storage tanks regulated under the federal Resource Conservation and Recovery Act.

Revenue Source: Tank fees and fines for tank violations.

Alphabetical Listing

Vessel Response Account — Fund #07C — RCW 90.56.335

Fund Manager: Spill, Prevention, Preparedness, and Response Program. Contact Tra Thai, 360-407-7454

Purpose: The original purpose was to provide funds for emergency vessel towing to prevent vessel casualties and major oil spills. This account expires July 1, 2020.

Authorized Use: Funds are for a standby emergency response tug at Neah Bay.

Revenue Source: Only penalties under RCW 90.56.330 support the account. In prior biennia, revenues from vehicle title fees collected by the Department of Licensing were distributed into the account, however, statutory changes changed the distribution to the Transportation 2003 (Nickel) Account starting in Fiscal Year 2008.

Voluntary Cleanup Account — Fund #23V — RCW 70.105D.180

Fund Manager: Toxics Cleanup Program. Contact Angie Wirkkala, 360-407-7219

Purpose: Through cost recovery, a fee structure, or both collect all costs associated with Ecology's expedited process for providing advice and assistance related to cleanup of hazardous waste sites under the Voluntary Cleanup Program.

Authorized Use: To support Ecology's expedited process for providing advice and assistance related to cleanup of hazardous waste sites under the Voluntary Cleanup Program.

Revenue Source: Cost recovery or fees collected from customers in the Voluntary Cleanup Program requesting reviews using the expedited process.

Waste Reduction, Recycling, and Litter Control Account — Fund #044 — RCW 70.93.180

Fund Manager: Solid Waste Management Program. Contact My-Hanh Mai, 360-407-6996

Purpose: To control, remove and prevent litter and develop public education programs concerning the litter problem, and to reduce and recycle waste materials, including those related to litter.

Authorized Use: Litter prevention and pickup (through Ecology Youth Corps, contracts and grants with local governments, and other state agencies), litter prevention campaign, litter survey, administration of litter program. Implementation of waste reduction and recycling efforts, including: provide technical assistance to local governments for commercial business and residential to increase markets and recycling and composting programs; educate residents about waste and litter reduction and recycling programs; and to increase access to recycling programs especially for food packaging and plastic bags.

Revenue Source: Wholesalers and retailers in Washington State pay a litter tax of $0.15 per $1,000 of gross proceeds as set in statute for all sales of food for humans or pets, cigarettes and tobacco products, soft drinks, carbonated water, beer, wine, newspapers, magazines, household paper and paper products, glass containers, metal containers, plastic or fiber containers made of synthetic materials, cleaning agents, and toiletries.

Waste Tire Removal Account — Fund #08R — RCW 70.95.510, 70.95.521, 70.95.532

Fund Manager: Solid Waste Management Program. Contact My-Hanh Mai, 360-407-6996

Purpose: To cleanup unauthorized waste tire piles, and prevent future accumulation of unauthorized waste tire piles.

Authorized Use: Administer and manage contracts to clean up and prevent unauthorized tire piles; establish and maintain a website to disseminate information about preventing tire piles; and provide enforcement of waste tire disposal regulations.

Revenue Source: RCW 70.95.510 authorizes a one dollar per tire fee on the retail sale of new replacement vehicle tires. This fee is collected from consumers making new tire purchases. Only one million dollars of the revenue collection is dedicated towards cleanup and prevention of unauthorized waste tire piles. On September 1st of odd-numbered years, any balance in excess of one million dollars from the Waste Tire Removal Account must be transferred to the Motor Vehicle Account for the purposes of road wear-related maintenance on state and local public highways.

Alphabetical Listing

Wastewater Treatment Plant Operator Certification Acct. Fund #21H RCW 70.95B.151

Fund Manager: Water Quality Program. Contact Rebecca Pittman, 360-407-7544

Purpose: To fund the certification of wastewater treatment plant operators.

Authorized Use: Fees shall be sufficient to fully recover the costs of the wastewater operator certification program, to include: evaluating applications necessary to verify compliance with certification requirements; maintaining and administering credible examinations; ensuring operators receive necessary training, outreach, and technical assistance; enforcing certification program requirements; providing necessary education and training to program staff; and supporting the overhead expenses related to administering the program.

Revenue Source: Wastewater treatment plant operator certification application and renewal fees.

Water Pollution Control Revolving Account Fund #727 RCW 90.50A.020

Fund Manager: Water Quality Program. Contact Kim Wagar, 360-407-6614

Purpose: To provide low interest loans to local governments for construction of water pollution control facilities and related activities that contribute to improved statewide water quality.

Authorized Use: Loans to local governments.

Revenue Source: Revenue for the Water Pollution Control Revolving Account comes primarily from two sources. The first is a yearly federal EPA grant that averages $25-28 million. The second source of revenue is principle and interest payments from loans awarded to local governments for construction of water pollution control facilities and other projects that reduce pollution in Washington's waterways. (This account retains interest.)

Water Pollution Control Revolving Administration Account Fund #564 RCW 90.50A

Fund Manager: Water Quality Program. Contact Kim Wagar, 360-407-6614

Purpose: Ecology is authorized to assess administration charges as a portion of the debt service for loans issued under the water pollution control revolving fund created in RCW 90.50A.020. The sole purpose of assessing administration charges is to predictably and adequately fund Ecology's costs of administering the water pollution control revolving fund loan program.

Authorized Use: Administration costs associated with conducting application processes, managing contracts, collecting loan repayments, managing the revolving fund, providing technical assistance, and meeting state and federal reporting requirements. Information and data system costs associated with loan tracking and fund management.

Revenue Source: Any administration charges levied by the department in conjunction with administration of the water pollution control revolving fund and any other revenues derived from gifts, grants, or bequests pledged to the state for the purpose of administering the water pollution control revolving fund.

Water Quality Capital Account Fund #11W RCW 70.146

Fund Manager: Water Quality Program. Contact Kim Wagar, 360-407-6614

Purpose: To provide grants to public bodies for financing construction of water pollution control facilities and nonpoint source activities.

Authorized Use: Grants to local governments.

Revenue Source: There is no specific revenue source for this account. It was intended that this account would be supported by a special appropriation from the Water Quality Account (WQA). In the 2009 Legislative Session, the WQA fund balance and statutory distribution from tobacco taxes was transferred to the State General Fund.

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Water Quality Permit Account — Fund #176 — RCW 90.48.465

Fund Manager: Water Quality Program. Contact Rebecca Pittman, 360-407-7544

Purpose: To fund regulation of the disposal of solid or liquid waste material into waters of the state, including commercial or industrial operators discharging solid or liquid waste material into sewage systems operated by municipalities or public entities.

Authorized Use: Fees are established in amounts to fully recover and not to exceed expenses in: processing permit applications and modifications; monitoring and evaluating compliance with permits; conducting inspections; securing laboratory analysis of samples; reviewing plans and documents directly related to operations of permittees; overseeing performance of delegated pretreatment programs; and supporting the overhead expenses directly related to these activities.

Revenue Source: Annual fees are based on a variety of factors including the complexity of permit issuance and compliance. Fee interval ranges from $130-176,697 for industries; $2.07-$2.16 (per residential equivalent) for municipalities; and $103-$41,232 for general permits. Stakeholders review fees each biennium. Ecology must go through formal rulemaking to amend the fees (Chapter 173-224 WAC). This can only occur every two years.

Water Rights Processing Account — Fund #16V — RCW 90.03.650

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To provide funds for processing water right applications.

Authorized Use: To support the processing of water right applications for a new water appropriation, as well as a request to change, transfer, or amend an existing water right.

Revenue Source: Fees from applicants seeking to process a water right through expedited processing RCW 90.44.540 or 90.03.655 and Certified Water Rights Examiners per RCW 90.03.665 are deposited to this account.

Water Rights Tracking System Account — Fund #10G — RCW 90.14.240

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To provide funds for management of a water rights tracking system.

Authorized Use: For the development, implementation, and management of a water rights tracking system, including a water rights mapping system and a water rights database.

Revenue Source: Twenty percent of the water right application or transfer/change/amendment fees collected by the Department of Ecology under RCW 90.03.470 are deposited to this account.

Watershed Restoration and Enhancement Account — Fund #22K — RCW 90.94.060

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To provide funds for administering the water availability act (Streamflow Restoration Program).

Authorized Use: To cover costs of administering the water availability act, including implementing watershed planning projects and watershed restoration and enhancement projects; and collecting data and completing studies necessary to develop, implement, and evaluate watershed restoration and enhancement projects.

Revenue Source: Fees and direct appropriations. Individuals seeking a permit that includes construction of a permit exempt well pays a $500 fee to the local permitting authority for the purpose of implementing a watershed restoration and enhancement program, and the local governments remit $350 of each fee to Ecology by August 1st of each year. Fees must be collected and used in the water resource inventory area in which the fee originated.

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Watershed Restoration and Enhancement Bond Account — Fund #366 — RCW 90.94.080

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To fund projects using tax exempt bonds for administering the water availability act (Streamflow Restoration Program).

Authorized Use: To fund projects using tax exempt bonds. Projects include acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and developing natural and constructed infrastructure designed to provide access to new water supplies, with priority given to projects in watersheds developing specified plans and watersheds participating in the defined pilot project.

Revenue Source: Up to $300 million of state bonds (in combination with the Watershed Restoration and Enhancement Taxable Bond Account) have been authorized for projects to achieve the goals of the water availability act until June 30, 2033. (This account retains interest.)

Watershed Restoration and Enhancement Taxable Bond Account — Fund #377 — RCW 90.94.070

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: To fund projects using taxable bonds for administering the water availability act (Streamflow Restoration Program).

Authorized Use: To fund projects using taxable bonds. Projects include acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and developing natural and constructed infrastructure designed to provide access to new water supplies, with priority given to projects in watersheds developing specified plans and watersheds participating in the defined pilot project.

Revenue Source: Up to $300 million of state bonds (in combination with the Watershed Restoration and Enhancement Bond Account) have been authorized for projects to achieve the goals of the water availability act until June 30, 2033. (This account retains interest.)

Wood Stove Education & Enforcement Account — Fund #160 — RCW 70.94.483

Fund Manager: Air Quality Program. Contact Matthew Vandrush-Borgacz, 360-407-6646

Purpose: To reduce air pollution from indoor wood stove use.

Authorized Use: To support educational programs on proper wood stove use and enforcement of opacity (density of smoke coming out of chimney) regulations as they relate to indoor wood stove burning.

Revenue Source: A $30 fee is charged to buyers of new wood stoves and fireplaces. Ecology receives $10 of this fee; the other $20 is passed through to local air authorities based on population.

Yakima Integrated Plan Implementation Account — Fund #19K — RCW 90.38.070

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: In cooperation with the United States and local water users, to fund projects or activities that resolve water conflicts in the Yakima River Basin through non-taxable bond sales and investment in storage, conservation, or access to water supplies pursuant to the Yakima Integrated Plan. The program is intended to satisfy both existing rights, and others presently unmet as well as future needs of the basin.

Authorized Use: Authorized in 2013. Intended to fund Yakima Integrated Plan projects owned or used by state or local governments.

Revenue Source: Direct appropriations from the Legislature, moneys directed to the account pursuant to RCW 90.38, and any other sources deposited to the account. (This account retains interest.)

Alphabetical Listing

Yakima Integrated Plan Implementation Revenue Recovery Account — Fund #565 — RCW 90.38.090

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: In cooperation with the United States and local water users, to fund projects or activities that resolve water conflicts in the Yakima River Basin through bond sales (taxable and non-taxable) and investment in storage, conservation, or access to water supplies pursuant to the Yakima Integrated Plan. The program is intended to satisfy both existing rights, and others presently unmet as well as future needs of the basin.

Authorized Use: Authorized in 2013. Intended to fund assessment, planning and/or development of water supply projects under the Yakima River Basin Integrated Resource Management Plan or for any other actions that provide access to new water supplies within the Yakima River Basin for both instream and out-of-stream uses.

Revenue Source: Water service contracts, permitting new water supply and/or loans related to the cost to develop new water supplies. Specific repayment terms depend on each individual agreement. (This account retains interest.)

Yakima Integrated Plan Implementation Taxable Bond Account — Fund #20C — RCW 90.38.080

Fund Manager: Water Resources Program. Contact Jim Skalski, 360-407-6617

Purpose: In cooperation with the United States and local water users, to fund projects or activities that resolve water conflicts in the Yakima River Basin through taxable bond sales and investment in storage, conservation, or access to water supplies pursuant to the Yakima Integrated Plan. The program is intended to satisfy both existing rights, and others presently unmet as well as future needs of the basin.

Authorized Use: Authorized in 2013. Intended to fund Yakima Integrated Plan projects owned or used the federal government, non-profit corporations, or private entities.

Revenue Source: Direct appropriations from the Legislature, moneys directed to the account pursuant to Chapter 90.38 RCW, and any other sources deposited to the account. (This account retains interest.)

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