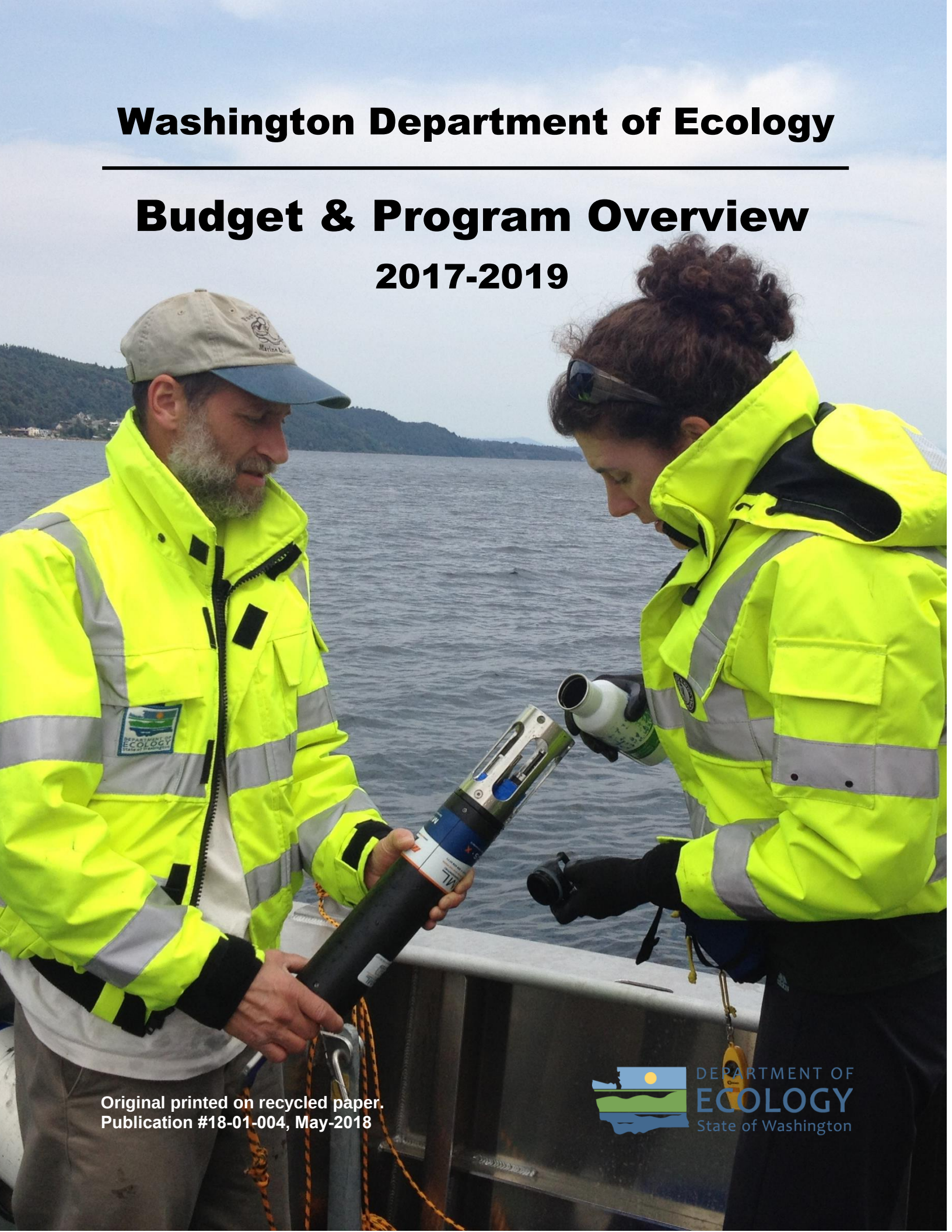
Washington Department of Ecology

Budget & Program Overview

2017-2019



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State of Washington

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For more information contact:

Financial Services Program
P.O. Box 47600
Olympia, WA 98504-7600
Phone: 360-407-6985

Washington State Department of Ecology – www.ecology.wa.gov

- Headquarters, Olympia 360-407-6000
- Northwest Regional Office, Bellevue 425-649-7000
- Southwest Regional Office, Olympia 360-407-6300
- Central Regional Office, Union Gap 509-575-2490
- Eastern Regional Office, Spokane 509-329-3400

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Cover photo: George Kaminsky and Diana McCandless of the Shorelands and Environmental Assistance Program rinse a data logger after taking measurements of sound velocity versus depth in the water column during bathymetric mapping in the Puget Sound.

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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 work and budget for the 2017-19 Biennium.

Our mission is to protect and preserve the environment for current and future generations, while valuing and supporting Washington's economic success. As the state's lead environmental agency, we're tackling challenges that are unique to our times and require new ways of thinking.

In the 21st Century, we must take the long view and build resiliency. At the same time, we must be nimble. We want to be ready and responsive to climate change, protecting our state's diverse ecology, and supporting the many natural resource industries that rely on abundant and clean land, air, and water.

We're working hard to shore up sustainable water supplies in eastern and western Washington as we respond to warmer and drier conditions. We're working to reduce exposure to harmful wood smoke and lessen the impacts of carbon emissions. We're studying the changing chemistry of our marine waters and the negative impact ocean acidification has on shellfish and other sea life. Our grants and technical assistance programs modernize wastewater treatment plants, help reduce stormwater runoff, and protect drinking water aquifers. And, we're continuing our mission to protect residents and the neighborhoods where they live.

Across the state, our cleanup funds allow us to tackle environmental challenges that are decades-old, such as contamination left behind from past commercial and industrial practices. We're helping restore these lands so they can be redeveloped and add value to our communities.

With renewed urgency, we're overseeing the cleanup of complex waste and groundwater contamination at the aging federal Hanford site.

To be successful, we know we must engage. We're building on innovative partnerships with tribes, businesses, conservation groups, agricultural producers, local governments, and Washingtonians from all backgrounds. We are finding creative ways to work together because we have a shared vision: passing on the natural beauty and abundance of healthy resources that ensure future generations a great quality of life. We have also seen firsthand that working together to maintain a clean environment directly supports a healthy economy.

I hope this publication serves as a comprehensive guide describing our priorities and goals, and the breadth of our environmental work. We also provide details regarding the laws we administer and the funds appropriated to us by the Legislature to accomplish our environmental mission.

Sincerely,

Maia D. Bellon
Director

2017-19 Introduction – Agency Budget

Ecology's 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 2017-19 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.

Ecology employees work across the state to protect the environment, the health of our citizens, and create a sustainable economy. We do this in a variety of ways, including:

- Contracts, loans, and grants.
- Environmental permitting.
- Compliance assistance.
- Inspections and enforcement.
- Environmental monitoring and analysis.
- Policy, rule, and technical guidance.
- Education and outreach.

The 2017 Legislature passed a $496 million 2017-19 operating budget for Ecology. Early in the 2018 session, they passed a 2017-19 capital budget that provides $641 million in new spending authority for a wide range of environmental and public health projects. Ecology's total 2017-19 capital budget is $841 million, including reappropriated projects.

Going into the 2018 Legislative Session, Ecology and others that rely on Model Toxics Control Act (MTCA) funding were seeking a solution to the problems caused by a significant and ongoing revenue shortfall tied to the drop in the value of crude oil. Over the last several biennia, legislative fund shifts and appropriations have increased our reliance on MTCA funding for base environmental program work. A portion of this work was supported by the State General Fund (GF-S) prior to the large downturn in the economy. In recent biennia, the enacted operating budgets included broad funding shifts that reduced GF-S by $64 million in Ecology's budget, and replaced it with MTCA. This preserved core environmental work, but further eroded MTCA funding capacity.

The 2017-19 Capital Budget provides bond backfill dollars to address the $70 million MTCA shortfall. This means $70 million in delayed toxic site cleanup and stormwater projects across the state can now proceed, and our MTCA fund balances are not facing a shortfall for the first time in many years.

In this book, each program's profile includes context for its work and descriptions of the activities funded in the 2017-19 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.

Ecology Executive Leadership Team

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

AG for Ecology	Laura Watson	360-586-6743

Program Administration Directors

Administrative Services & Environmental Policy	Kelly Susewind	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	Baird Miller	360-407-7048
Office of Columbia River	Tom Tebb	509-574-3989
Office of Chehalis Basin	Andrea McNamara Doyle	360-407-6548
Tribal Liaison	Tom Laurie	360-407-7017

Regional Office Directors

Central	Sage Park	509-457-7120
Eastern	Grant Pfeifer	509-329-3516
Northwest	Tom Buroker	425-649-7010
Southwest	Sally Toteff	360-407-6307

Environmental Program Directors

Air Quality	Stuart Clark	360-407-6880
Environmental Assessment	Carol Smith	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
Spills Prevention	Dale Jensen	360-407-7450
Toxics Cleanup	Jim Pendowski	360-407-7177
Waste 2 Resources	Laurie Davies	360-407-6103
Water Quality	Heather Bartlett	360-407-6405
Water Resources	Mary Verner	360-407-6672

Department of Ecology – Executive Leadership

Director
Maia Bellon
360/407-7001

Office of Attorney General
Laura Watson
360/586-6743

Confidential Secretary
Teri North
360/407-7009

Deputy Director
Polly Zehm
360/407-7011

Confidential Secretary
Patricia Thronson
360/407-7014

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Kelly Susewind
360/407-6829

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Sandi Peck
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Denise Clifford
360/407-7003

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Baird Miller
360/407-7048

Office of Chehalis Basin
Andrea McNamara Doyle
360/407-6548

Office of Columbia River
Tom Tebb
509/574-3989

Tribal & Env. Affairs, Sr. Advisor
Tom Laurie
360/407-7017

Regional Directors

Central Region
Sage Park
509/457-7120

Eastern Region
Grant Pfeifer
509/329-3516

Northwest Region
Thomas Buroker
425/649-7010

Southwest Region
Sally Toteff
360/407-6307

Environmental Program Managers

Toxics Cleanup
Jim Pendowski
360/407-7177

Shorelands & Env. Assistance
Gordon White
360/407-6977

Hazardous Waste & Toxics Reduction
Darin Rice
360/407-6702

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Carol Smith
360/407-6699

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Stu Clark
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Dale Jensen
360/407-7450

Water Quality
Heather Bartlett
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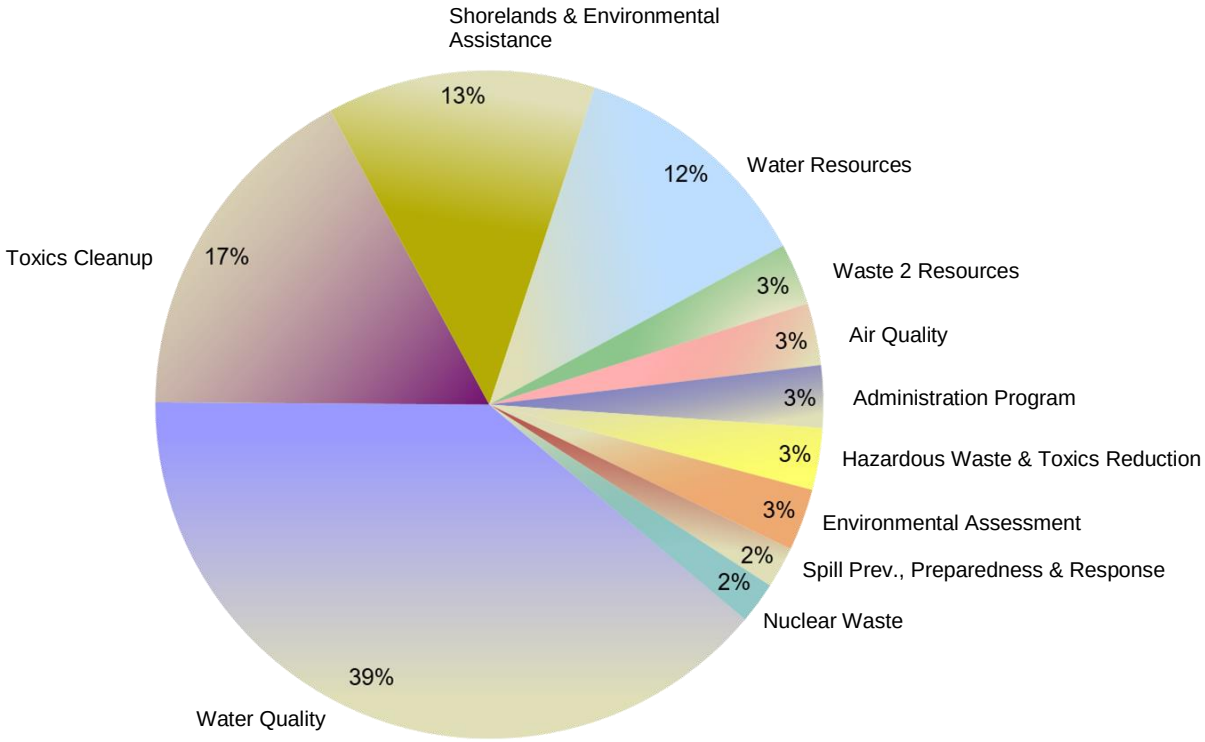
Ecology 2017-19 Biennium Budget
By Program

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.

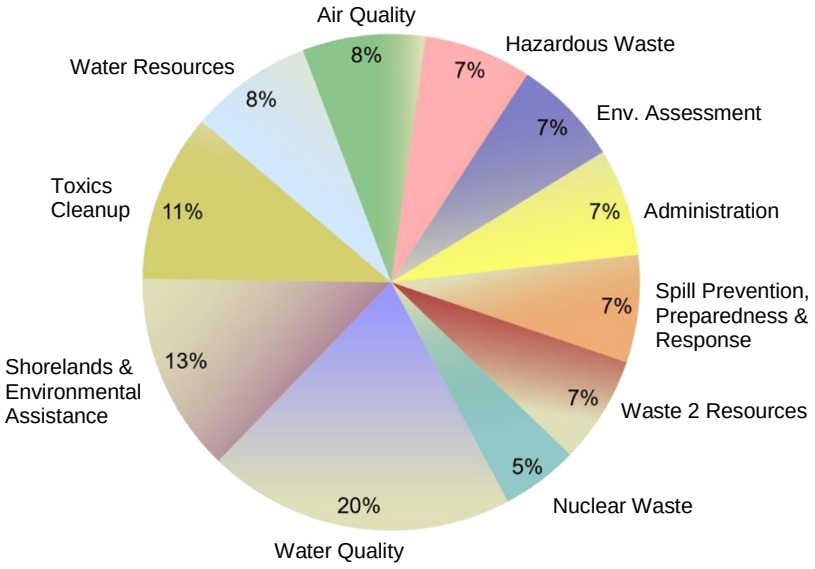


Programs	FTEs	Operating	Capital	Operating + Capital	%
Water Quality	257.0	$97,500,593	$417,886,164	$515,386,757	39%
Toxics Cleanup	191.7	55,944,727	173,109,755	229,054,482	17%
Shorelands & Environmental Assistance	160.4	63,366,186	113,392,353	176,758,539	13%
Water Resources	141.0	41,467,838	114,481,163	155,949,001	12%
Waste 2 Resources	112.4	32,708,303	12,117,997	44,826,300	3%
Air Quality	133.4	40,406,124	3,752,419	44,158,543	3%
Administration Program	155.8	33,999,340	3,891,381	37,890,721	3%
Hazardous Waste & Toxics Reduction	128.4	35,831,901	109,081	35,940,982	3%
Environmental Assessment	152.3	35,295,821	0	35,295,821	3%
Spill Prevention, Preparedness & Response	83.6	33,556,587	0	33,556,587	2%
Nuclear Waste	95.9	25,519,580	2,050,000	27,569,580	2%
Total	**1,611.9**	**$495,597,000**	**$840,790,313**	**$1,336,387,313**	**100%**

Ecology 2017-19 Biennium Operating Budget
Operating Budget[1] = $495.6 Million

By Program

Programs	Operating	%
Water Quality	$97,500,593	20%
Shorelands & Environmental Assistance	63,366,186	13%
Toxics Cleanup	55,944,727	11%
Water Resources	41,467,838	8%
Air Quality	40,406,124	8%
Hazardous Waste and Toxics Reduction	35,831,901	7%
Environmental Assessment	35,295,821	7%
Administration[2]	33,999,340	7%
Spill Prevention, Preparedness & Response	33,556,587	7%
Waste 2 Resources	32,708,303	7%
Nuclear Waste	25,519,580	5%
Total	**$495,597,000**	**100%**



By Fund Source

General Funds	Amount	%
General Fund – Federal (001)	$106,575,000	21.5%
General Fund – State (001)	42,288,000	8.5%
General Fund – Private/Local (001)	23,028,000	4.6%
Dedicated Accounts	**Amount**	**%**
State Toxics Control (173)	$147,806,000	29.8%
Water Quality Permit (176)	44,119,000	8.9%
Env. Legacy Stewardship (19G)	41,259,000	8.3%
Radioactive Mixed Waste (20R)	18,170,000	3.7%
Waste Reduction, Recycling, & Litter Control (044)	13,736,000	2.8%
Oil Spill Prevention (217)	8,469,000	1.7%
Oil Spill Response (223)	7,076,000	1.4%
Hazardous Waste Assistance (207)	6,466,000	1.3%
Local Toxics Control (174)	4,845,000	1.0%
Reclamation (027)	4,106,000	0.8%
Air Operating Permit (219)	3,787,000	0.8%
Underground Storage Tank (182)	3,635,000	0.7%
Water Pollution Control Revolving Administration (564)	3,601,000	0.7%
Air Pollution Control (216)	3,437,000	0.7%
Biosolids Permit (199)	2,207,000	0.4%
Flood Control Assistance (02P)	2,175,000	0.4%
Worker & Comm. Right-to-Know (163)	1,872,000	0.4%
Coastal Protection (408)	1,556,000	0.3%
Freshwater Aquatic Weeds (222)	1,460,000	0.3%
Electronic Products Recycling (11J)	788,000	0.2%
Site Closure (125)	582,000	0.1%
Wood Stove Education & Enforcement (160)	560,000	0.1%
Aquatic Algae Control (10A)	522,000	0.1%
State Toxics Control - Private/Local (173)	499,000	0.1%
Product Stewardship Programs (16T)	233,000	<0.1%
State Drought Preparedness (05W)	204,000	<0.1%
Basic Data (116)	170,000	<0.1%
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	164,000	<0.1%
Photovoltaic Module Recycling (22G)	76,000	<0.1%
Water Rights Tracking System (10G)	47,000	<0.1%
State Emergency Water Projects Revolving (032)	40,000	<0.1%
Water Rights Processing (16V)	39,000	<0.1%
Total	**$495,597,000**	**100.0%**

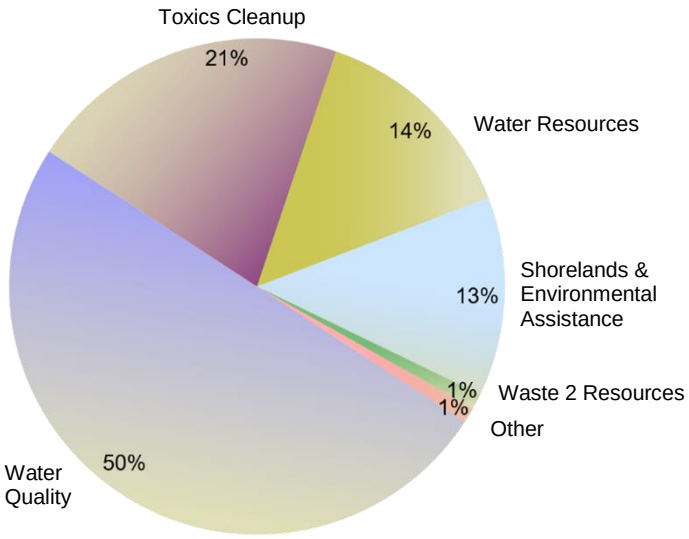
[1] Source: 2017-19 enacted operating budget allotment control totals.

[2] 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.

Ecology 2017-19 Biennium Capital Budget
Capital Budget[3] = $840.8 Million

By Program

Programs	Capital	%
Water Quality	$417,886,164	50%
Toxics Cleanup	173,109,755	21%
Water Resources	114,481,163	14%
Shorelands & Environmental Assistance	113,392,353	13%
Waste 2 Resources	12,117,997	1%
Other:		
Administration	3,891,381	<1%
Air Quality	3,752,419	<1%
Nuclear Waste	2,050,000	<1%
Hazardous Waste & Toxics Reduction	109,081	<1%
Total	**$840,790,313**	**100%**



By Fund Source

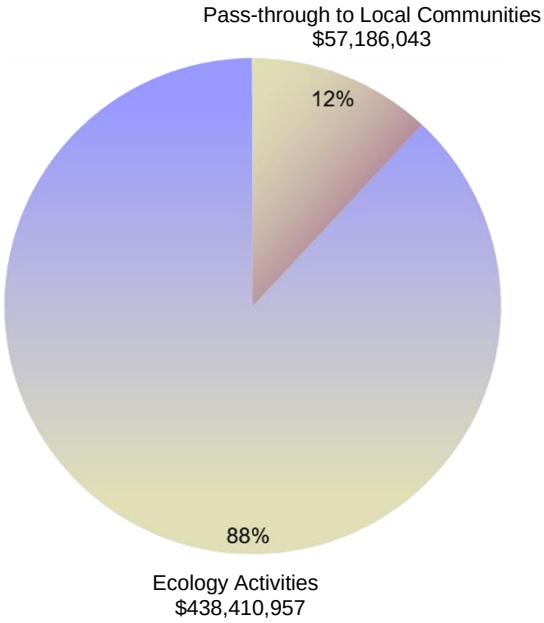
Accounts	Amount	%
State Building Construction (057)	$305,138,005	36.3
Water Pollution Control Revolving – State (727)	245,302,636	29.2
Local Toxics Control (174)	96,092,734	11.4
Water Pollution Control Revolving – Federal (727)	50,400,000	6.0
Cleanup Settlement (15H)	42,030,359	5.0
State Toxics Control (173)	26,174,381	3.1
Columbia River Basin Water Supply Development (10P)	22,515,303	2.7
General Fund – Federal (001)	17,767,829	2.1
Environmental Legacy Stewardship (19G)	16,903,877	2.0
State Taxable Building Construction (355)	4,526,038	0.5
Columbia River Basin Water Supply Revenue Recovery (296)	4,081,929	0.5
Watershed Restoration and Enhancement Bond (366)	3,500,000	0.4
Site Closure (125)	2,050,000	0.3
State Drought Preparedness (05W)	1,696,040	0.2
Waste Tire Removal (08R)	1,300,236	0.2
Columbia River Basin Taxable Bond Water Supply Development (18B)	1,016,162	0.1
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	294,784	<0.1
Total	**$840,790,313**	**100.0%**

[3] Source: 2017-19 enacted capital budget allotments after January 2018 capital budget.

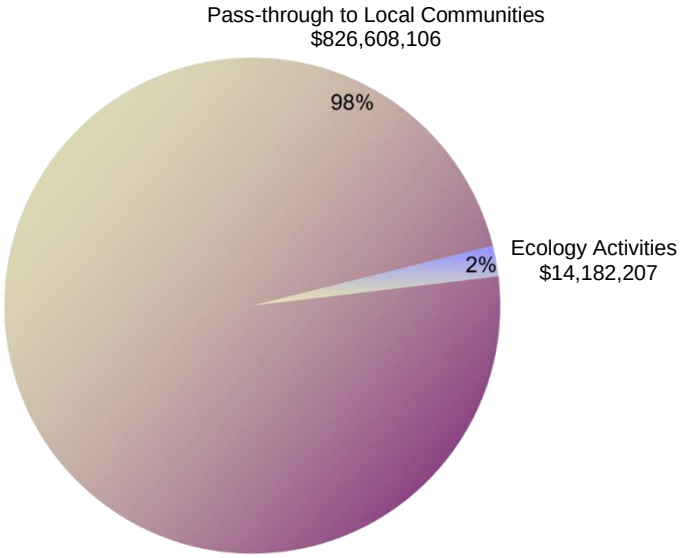
Ecology 2017-19 Biennium Budget
Pass-through Funding[4]

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.

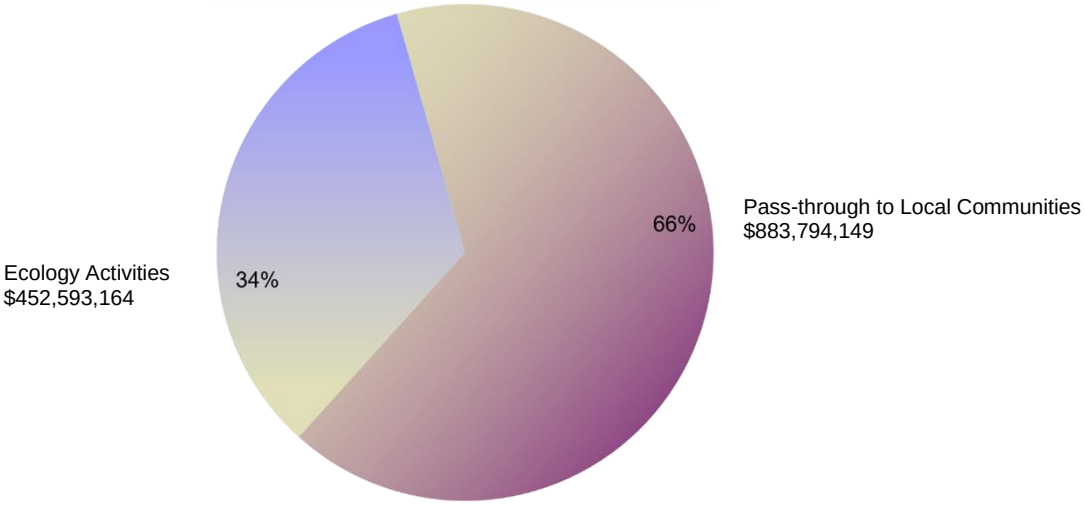
Operating Budget = $495.6 Million



Capital Budget = $840.8 Million



Combined Operating + Capital Budget = $1.3 Billion



[4] See the section on *Ecology's Data – Where Does It Come From?* for additional information on pass-through funding.

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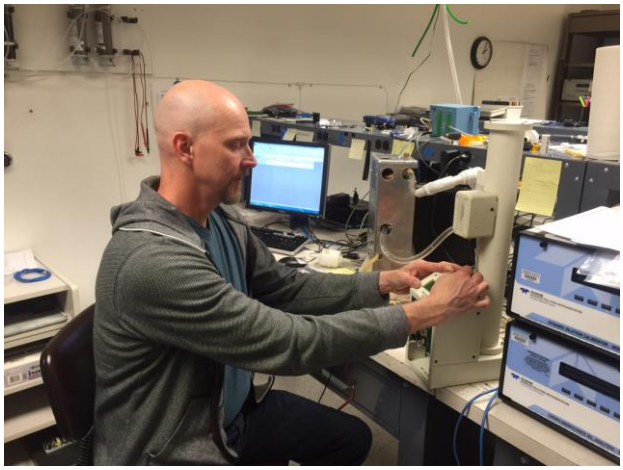


Air Quality's John Wolbert works on a nephelometer in the program's Operations Calibration and Repair Lab. Ecology uses nephelometers to measure fine particulates suspended in air.

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. Ten 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 may soon violate 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 citizens. 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 citizens to significant health risks.

Extremely fine particles in smoke and diesel engine exhaust are primary air pollution health concerns in Washington. But 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 rain water 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, which could make it increasingly difficult 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, lead, 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 significantly.

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 14,400 diesel engines, resulting in reductions of more than 66 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 upwards. 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 and its local air agency partners have replaced close to 5,000 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 and intentional burning in forests 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 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

Citizens 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 will implement changes required to meet California Clean Car Standards for greenhouse gas emissions.

Ecology will also track and implement new federal regulations to reduce carbon pollution from power plants. These new requirements place an increased workload on the rule development, policy, and technical resources in the Air Quality Program.

Ecology staff provide technical expertise to the governor and policymakers on state policy development, efforts to meet federal requirements, and progress toward the greenhouse gas reduction limits in state law. Under the direction of Governor Inslee, in September 2016, Ecology adopted the Clean Air Rule to cap and reduce greenhouse gas emissions from the state's largest polluters. Implementation of that rule began in January 2017.

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 applying for permits easier and faster.

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

Federal law establishes minimum air standards for six air pollutants known as criteria pollutants. Violations of those health based standards trigger costly regulatory actions for state and local governments, businesses, and consumers, resulting in economic constraints and creating potential for severe financial sanctions against the state if problem areas are not cleaned up in a timely way. To ensure federal 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, and designs and implements strategies to prevent violations.

Recent compelling research shows the current National Ambient Air Quality Standards for some criteria pollutants do not protect human health, and these standards are under federal review. In light of this new research, Ecology is adjusting its focus to assure the air in Washington is both safe to breathe and meets federal standards. We will work to reduce ambient air pollutant concentrations to levels that ensure air in Washington communities is healthy to breathe, clean up areas that violate standards as quickly as possible, and prevent future violations of National Ambient Air Quality Standards.

Expected Results

- Air quality standards in Washington are met throughout the state to minimize public health problems linked to unsafe air.
- Clean air, as classified and officially recognized by the Environmental Protection Agency, is attained and maintained, and federal sanctions are avoided.
- Violations of ambient air quality standards are prevented.
- State Implementation Plan strategies are implemented for areas out of compliance with federal air quality standards: Pierce County/Tacoma.
- Strategies are evaluated to help prevent areas from violating federal air quality standards in vulnerable and at-risk communities.
- A focused program to reduce fine particle pollution in one Central Washington community is implemented.

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 use three primary activities to collect this data: air quality monitoring (assessing trends; focused compliance; and assessing control strategies, health effects, and environmental damage); emission inventory development (quantifying pollution released by sources of air pollution); and meteorological and dispersion modeling forecasts (movement and concentration of air pollutants, carrying capacity of airsheds, interactions of pollutants, and point of maximum impact of pollution).

Expected Results

- Comprehensive, high-quality air quality data are gathered, maintained, and

evaluated over time to ensure informed policy decisions.
- The federally-required monitoring network review and monitoring site modifications are conducted to meet state and federal air quality needs.
- Adequate data are available to policy makers.
- Improved emissions data and modeling tools are used to predict air quality levels, impacts, and trends.

Performance Measure
- Percentage of monitoring data that is valid.

Climate Change Mitigation and Adaptation

State law sets limits on emissions of greenhouse gases and establishes a portfolio of policies to reduce energy use and build a clean energy economy. It also lays out 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 will implement 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 and will also continue its efforts to monitor and influence federal initiatives that reduce greenhouse gas emissions. Ecology will continue to assist local governments and state agencies identify and report their greenhouse gas emissions and develop strategies to reduce those emissions.

To help citizens, businesses, and local governments cope with existing and projected climate changes, Ecology has worked in concert with other designated agencies to develop an integrated climate change response strategy. Ecology will continue its efforts to make information about climate change impacts readily accessible to decision makers in the public and private sectors, as well as the public.

Reduce Air Pollution from Industrial and Commercial Sources

Ecology issues permits and conducts inspections of new and existing industrial and commercial facilities that emit significant levels of air pollution. Permit and inspection programs are mandated either by federal or state clean air laws and are designed to be self-supporting through fees to the degree allowed under law. Ecology provides technical assistance, permit application and processing guidance, interpretation of rules, pre-application assistance, and permit review. Permits are conditioned and approved to ensure all federal and state laws are met and that public health, air quality, and the environment are protected. Sources are inspected to ensure permit conditions are met and that ongoing operations do not jeopardize public health. Ecology develops and modifies industrial source regulations to incorporate federal and state law changes, simplify and streamline permit requirements, and ensure public health protection. Ecology conducts compliance inspections, resolves complaints, and develops technical and policy direction on emerging industrial permit issues.

Expected Results
- Air pollution from industrial and commercial sources is controlled to protect public health and minimize costs and regulatory burdens.
- 100 percent of permits meet timeliness targets.
- The regulated community is certain about the need, content, and time frames for permits.
- Ecology and local air pollution control agencies retain delegation and local control of federal permit programs.

Performance Measure
- Average Notice of Construction permit processing time (days).

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. These emissions adversely affect public health, substantially increase health care costs, and increase cancer and mortality rates. Without significant emission reductions, Ecology cannot ensure healthy air to breathe, future attainment of federal air quality standards, avoid multi-million dollar control costs to businesses and citizens, or reduce or prevent harmful health effects. To protect public health and the environment from motor vehicle pollution, Ecology implements Washington's Clean Car standards and the vehicle emission check program of nearly two million cars and trucks; promotes transportation alternatives and cleaner motor vehicles and fuels through voluntary, regulatory, and incentive programs; and retrofits school buses and other diesel engines with better emission controls and idle reduction technologies.

Expected Results

- Air pollution emissions from motor vehicles are reduced.
- Pollution from on-road motor vehicles is reduced approximately ten percent per year.
- Pollution from approximately two million cars is reduced by operating an emission check program in three maintenance areas in the state.
- Diesel school buses, public fleet engines, and appropriate private sector engines are equipped with appropriate exhaust controls and idle reduction devices.
- Additional strategies to reduce engine idling in high-exposure areas (near schools, health centers, and around truck stops) are developed and implemented.

Performance Measures

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

Reduce Health and Environmental Threats from Smoke

Nagging regional smoke pollution plagues many areas in Washington and affects public health and quality of life. The two leading sources of smoke 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. We also produce daily burn forecasts; respond to and resolve complaints related to smoke; provide technical assistance to manage and prevent outdoor burning impacts; and, through technical assistance, research, and demonstration projects, promote 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 and promotes development of clean burning technologies; and coordinates with the Environmental Protection Agency (EPA) on standards for residential home heating appliances. Ecology will assist communities, local health organizations, and fire suppression agencies with health impact messaging and recommendations during large-scale wildfire events.

Expected Results

- Ecology's ongoing goal is to achieve and maintain air quality levels in all Washington communities that experts agree is sufficient to protect human health.
- Public health threats from smoke are managed and minimized.

- Smoke impacts on communities from agricultural and other outdoor burning are reduced.
- Outdoor burning permit and smoke management systems are improved and streamlined.
- Local burning permit programs are audited to ensure effective and efficient operation.
- 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, and working with EPA to develop more stringent certifications for wood-burning devices.

Performance Measures

- Number of citizens exposed to air quality that does not meet "healthy" levels for fine particle pollution in monitored areas.
- Number of wood stoves replaced with cleaner burning technologies.
- Number of times fine particle pollution is measured above a "healthy" level.

Reduce Risk from Toxic Air Pollutants

Ecology has identified 16 high-risk toxic air pollutants that are prevalent in Washington. To significantly reduce potential risk to the public, Ecology conducts annual air toxics emission inventories; operates air toxics monitoring sites; limits toxic emissions through permit conditions for commercial facilities, combustion processes, and outdoor burning; and implements programs to reduce emissions from diesel engines and indoor wood-heating devices.

Expected Results

- The public health threat from toxic air pollutants is minimized.
- Improved emission inventories increase agency and policy-maker understanding of ambient concentrations and sources of priority toxics.
- Diesel soot emissions are reduced 40 percent by 2015 compared to a 2005 baseline.
- State funds are used to reduce diesel emissions near ports and other high exposure areas (near schools, hospitals, freight distribution centers, truck stops, etc.).
- Wood stove replacements target high-use stoves in high-risk communities.
- The Gasoline Vapor Recovery Program and Asbestos Labeling Program are implemented.

Performance Measures

- Number of diesel engines retrofitted with pollution-control equipment.
- Number of wood stoves replaced with cleaner burning technologies.
- Tons of diesel soot emissions produced statewide.

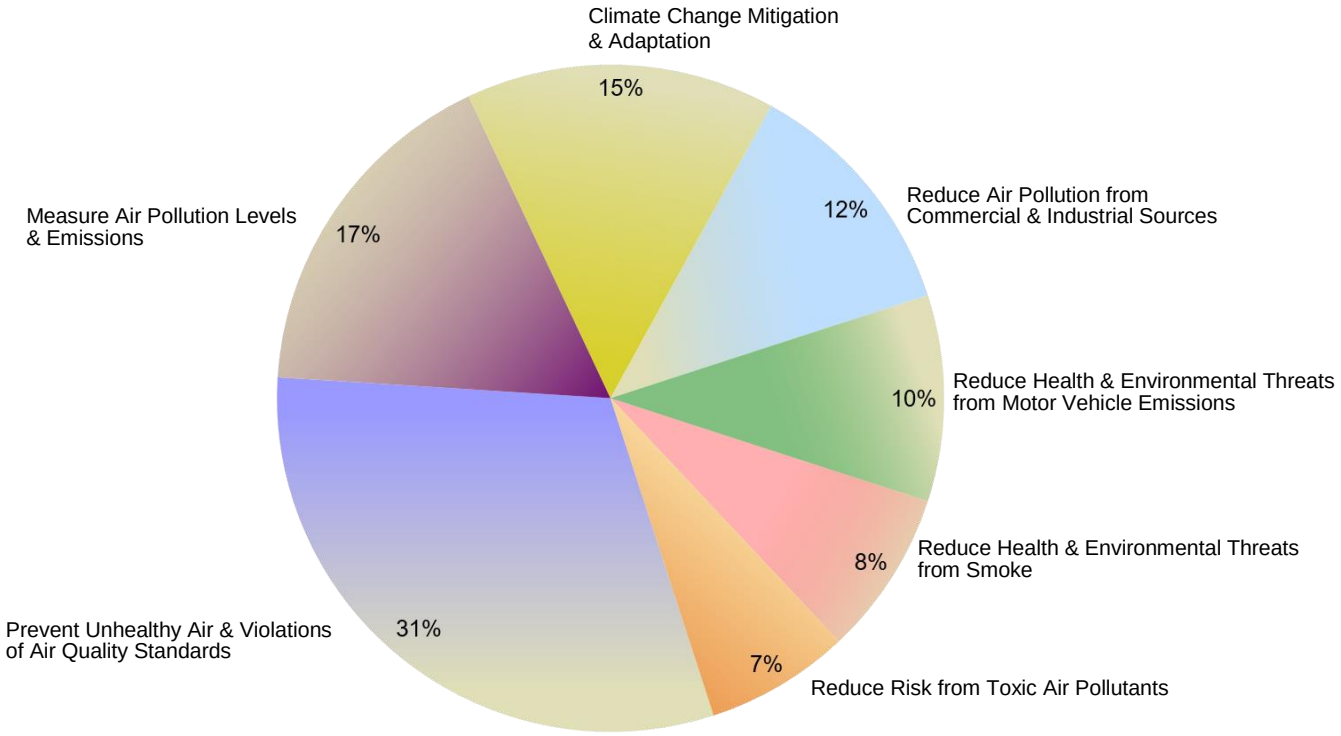
Expected Results

- Greenhouse gas emissions are reduced.
- Detailed sector-by-sector greenhouse gas emission inventories are updated regularly for policy makers and the public.
- Information from the greenhouse gas reporting program better informs policy makers and the public about sources of greenhouse gas emissions.
- State agency and local government emissions are known and reduction strategies are in place.
- The Governor's Executive Order 12-07 on ocean acidification is implemented.
- New strategies to reduce emissions are undertaken as a result of the recommendations of the Climate Legislative and Executive Workgroup.

Performance Measure

- Tons of greenhouse gas emissions produced statewide.

Air Quality Program 2017-19 Biennium Budget
By Activties
Operating Budget = $40.4 Million; FTEs = 133.4

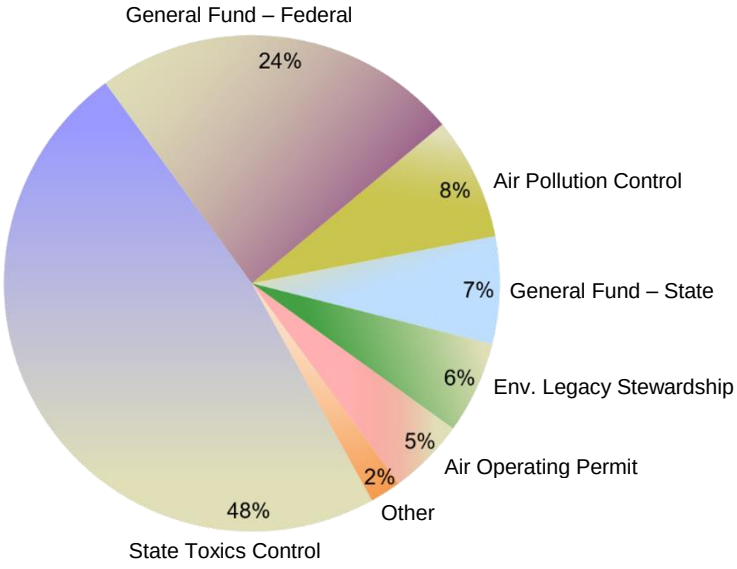


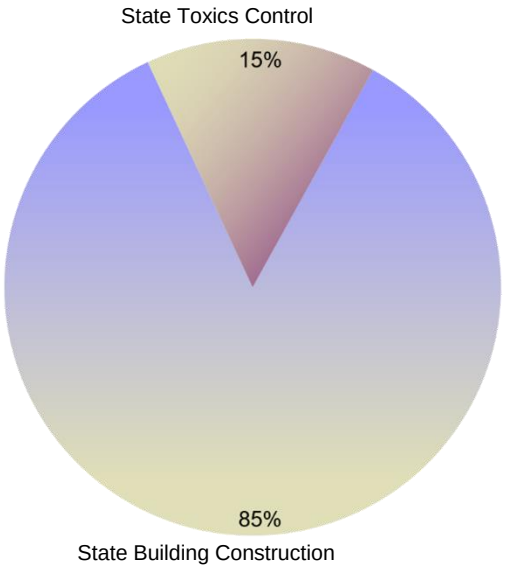
Activities	Amount	%	FTEs
Prevent Unhealthy Air & Violations of Air Quality Standards (A034)	$12,633,533	31%	24.9
Measure Air Pollution Levels & Emissions (A025)	6,986,092	17%	22.6
Climate Change Mitigation & Adaptation (A063)	6,188,342	15%	25.6
Reduce Air Pollution from Industrial and Commercial Sources (A045)	4,724,954	12%	19.5
Reduce Health & Environmental Threats from Motor Vehicle Emissions (A047)	4,033,891	10%	17.4
Reduce Health & Environmental Threats from Smoke (A048)	3,082,978	8%	14.1
Reduce Risk from Toxic Air Pollutants (A051)	2,756,334	7%	9.3
Air Quality Operating Budget Total	**$40,406,124**	**100%**	**133.4**

Air Quality Program 2017-19 Biennium Budget
By Fund Source

Operating Budget = $40.4 Million **Capital Budget = $3.8 Million**

FTEs = 133.4





Operating Fund Sources	Amount	%	Uses
State Toxics Control (173)	$19,377,415	48%	Developing strategies to respond to and prevent violations of national ambient air quality standards 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 and greenhouse gas emission inventory. Implementation of the Clean Air Rule.
General Fund – Federal (001)	9,687,090	24%	State and local air authority grants for ambient air monitoring, emission inventory, modeling, meteorology, and other air quality activities.
Air Pollution Control (216)	3,089,753	8%	Minor source and new source permitting, agricultural burning permitting, agricultural burning alternatives research, greenhouse gas reporting.
General Fund – State (001)	2,850,213	7%	Implementation of the Clean Air Rule.
Environmental Legacy Stewardship (19G)	2,664,600	6%	Returning areas to attainment with federal standards and preventing at risk areas from going into nonattainment.
Air Operating Permit (219)	1,885,705	5%	Permitting of major air pollution sources, small business technical assistance.
Other:			
Wood Stove Education & Enforcement (160)	527,091	1%	Enforcement of and education regarding proper wood stove use, grants to local air authorities.
General Fund – Private/Local (001)	324,257	1%	Private / local agreements associated with ambient air monitoring and telemetry systems.
Operating Budget Total	**$40,406,124**	**100%**	

Capital Fund Sources	Amount	%	Uses
State Building Construction (057)	$3,185,473	85%	Reducing harmful emissions from wood stove burning and heavy duty diesel engines.
State Toxics Control (173)	566,946	15%	Reducing harmful emissions from wood stove burning and heavy duty diesel engines.
Capital Budget Total	**$3,752,419**	**100%**	
Air Quality Operating & Capital Budget Total	**$44,158,543**		

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Crystal Bowlen, with the Environmental Assessment Program's Manchester Environmental Laboratory in Port Orchard, prepares to place suspended sediment samples in a furnace. The laboratory offers a range of analytical services in general chemistry, organic chemistry, metals, and microbiology.

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 for Ecology. We conduct monitoring programs and design scientific studies and models to measure marine, ground, and freshwater quality, stream flow, aquatic habitat, 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. In doing this, we may 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 work partners with other agencies and entities.

Authorizing Laws

- *Federal Clean Water Act*
- *Chapter 70.105D RCW, Model Toxics Control Act*
- *Chapter 70.119A.080 RCW, 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 and local governments and state agencies.*
- *Tribes.*
- *Businesses.*
- *Environmental organizations.*
- *General public.*
- *Internal clients.*

Issues

Monitoring for Action

Ecology investigates and monitors rivers, streams, lakes, and marine waters threatened by pollution so we can take appropriate action to clean up, restore, and protect those resources. We design monitoring programs and studies to support pollution identification and cleanup efforts, guide regulatory actions (including permitting decisions and instream flow rule setting), and provide data to support critical management decisions.

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.

Beach Monitoring

Using BEACH Act grant funds from the U.S. Environmental Protection Agency (EPA), Ecology is working with the Department of Health and local health agencies to monitor bacterial contamination at many marine swimming beaches in Washington. Local health agencies use these data to determine when public beaches must be closed to protect swimmers from unsafe contamination. Federal funding for this long-standing program has been threatened in the past, but was recently extended through 2018. If EPA does end the grant, Ecology will likely submit a budget request for state funding to continue the program after federal funding ends.

Innovative Tools for Data Collection and Science Communication

To better understand water quality in Puget Sound, Ecology developed an innovative approach to collecting data by "hitchhiking" sensors on public and private ferries that cross Puget Sound's waters on a daily basis. Ferries for Science is a cost-effective program to extend Ecology's monitoring capabilities and improve our ability to characterize, understand, and predict Puget Sound water quality. This program was developed in collaboration with federal, state, academic, and business partners and was recognized with an award by the Environmental Council of the States (ECOS).

Long-term monitoring data are indispensable for establishing baselines, detecting trends, and understanding natural systems. It is important to communicate that information in a way that attracts public visibility and has greater scientific impact. Eyes Over Puget Sound (EOPS) is an image-rich, story-driven surface condition report that informs the interested community about current conditions in Puget Sound and Washington's coastal estuaries. EOPS serves as an access point for a wide range of long-term marine monitoring information, including ferry data. Half a million downloads per year speak to the appeal of the program.

Emerging 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 we need more capacity to keep up with requests to screen for new toxic chemicals, such as flame retardants, phthalates, new pesticides, and pharmaceuticals.

Monitoring for Success

In addition to targeting known sites and specific problem areas, Ecology is frequently asked:

- What is the overall health of the environment?
- Is the water getting cleaner or dirtier?

Site-specific sampling tells us only about the conditions at a specific location. We also need to know whether the combined benefits of all our management actions and investments are making a difference against the cumulative impacts of pollution sources and environmental degradation across broad regions of the state.

To do this, Ecology needs to expand its statistically-reliable monitoring programs to help measure progress toward our broad environmental goals. Technological

advancements in monitoring equipment allow us to collect higher quality and quantity of data more efficiently. There are opportunities for Ecology to enhance our monitoring to gain a deeper understanding of our current environmental conditions.

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. We developed a data management system to house the status and trends data, and we completed a web interface allowing enhanced access to this data. Our staff and partners (EPA, King County, and tribes) enter watershed health data directly into the system using rugged mobile tablets in the field. The system was successfully used by the regional stormwater monitoring program and partners with favorable feedback. Ecology will continue to expand use of the watershed health data system to other entities.

Groundwater Monitoring

Ecology provides groundwater monitoring and assessment to support water quality cleanup plans (TMDLs) and other specialized projects. We have a depth of hydrogeologic expertise in modeling, groundwater surface water interaction, toxics, and agricultural nutrient impacts.

We currently do not have a systematic, statewide, groundwater level or ambient groundwater quality monitoring program, due to a lack of funding. But, we have made small progress with grant money. Examples include modernizing Ecology's groundwater data management systems, developing database tools specific to groundwater analysis and report capture, and publishing standardized groundwater data collection procedures for quality assurance.

As we move toward systematic groundwater assessment, we will be better able to understand pollution sources and transport and to predict how groundwater levels and storage may change due to water withdrawals, surface flows, climate, or precipitation trends. 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. Budd Inlet, last sampled in 2011, will be resampled in 2018. Port Gardner and Elliott Bay, last sampled in 2012, will be resampled in 2019. Environmentally sensitive bays of interest to Ecology that are outside of urban areas may be added to the monitoring rotational cycle in the future.

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 established to help curb the amount of pollution entering waterbodies, it's important to track the improvement in water quality. Effectiveness monitoring uses a combination of different

monitoring types to evaluate whether specified activities have achieved the goals of restoring water quality (i.e., are our actions really making a difference?). In addition to monitoring the effectiveness of Ecology's TMDLs, we are currently partnering with Whatcom Conservation District, Palouse Conservation District, Palouse-Rock Conservation District, and Lewis County Conservation District, on various types of effectiveness monitoring.

Activities, Results, and Performance Measures

Conduct Environmental Studies for Pollution Source Identification and Control

Ecology conducts pollution 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 measuring toxic contaminants in fish tissues or pesticides in groundwater.

Many projects are studies that calculate the Total Maximum Daily Load (TMDL) of a pollutant a waterbody can absorb without causing violations of water quality standards. Study results are published in scientific reports used for regulatory decision making, policy development, and environmental health protection.

Expected Results

- Scientific studies are conducted to assess pollution sources and environmental health.
- Resource managers have credible scientific information to inform decisions on pollution controls needed to protect environmental and public health.
- All study reports are peer reviewed, completed on schedule, and posted to the Internet.

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, and evaluate changes and trends in water quality over time. This network includes sampling stations in rivers, streams, and in-shore marine waters (Puget Sound and the major coastal estuaries). Ecology also measures stream flows in salmon-critical basins and key watersheds statewide and posts the results in near real time on our website.

Expected Results

- Trends, conditions, and changes in water quality of major freshwater rivers, Puget Sound, and the largest coastal estuaries are tracked.
- Monthly samples from approximately 82 freshwater and 35 marine water sites are collected.
- Stream flows at approximately 62 near real-time stations are measured and reported.
- Real-time stream flow data is provided via the web.
- Ecology staff and the public are alerted to emerging water quality problems.
- The effectiveness of water cleanup activities is tracked and assessed.

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, and Model Toxics Control Acts.

Expected Results

- Ecology's full-service environmental testing laboratory provides defensible and accurate analytical and laboratory support to decision makers.
- Scientifically sound laboratory results are provided to clients for making environmental 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), including drinking water. Accreditation helps ensure environmental laboratories have the demonstrated capability to provide accurate and defensible data. Ecology's laboratory accreditation program is the primary source of performance monitoring for over 400 laboratories in the accreditation program.

Expected Results

- Environmental laboratories submitting data to Ecology and the Department of Health have the demonstrated ability to provide accurate and defensible data.
- Over 400 environmental laboratories in the United States and Canada are evaluated and accredited.
- Proficiency testing analyses for Washington laboratories are evaluated.
- Accredited laboratories maintain successful, quality programs.
- Environmental and public health decisions are based on accurate and defensible analytical data.

Performance Measure

- Percentage of acceptable proficiency testing analyses completed by Washington State laboratories.

Improve the Quality of Data Used for Environmental Decision Making

Sound environmental policy and regulatory decisions require accurate and timely data. To ensure the reliability and integrity of data Ecology uses, agency staff provide guidance and training on developing quality assurance project plans, review project proposals, and consult on sampling design requirements and interpretation of results. This quality assurance function is required by the Environmental Protection Agency (EPA) 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, and supply information for policy decisions, to support agency mandates.

Expected Results

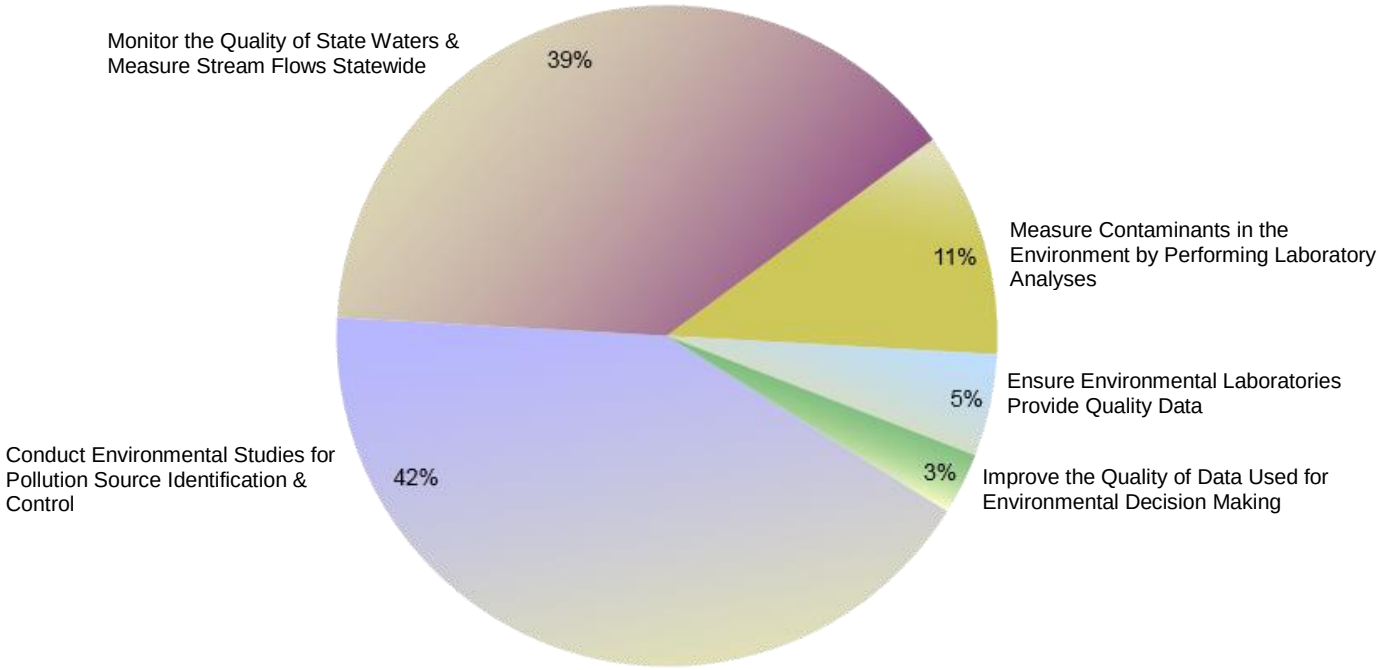
- Environmental policy and agency decisions are based on accurate, reliable, and timely data.

- Quality assurance project plans are completed for all scientific studies before sampling begins.
- Environmental sampling and laboratory methods are described in formal standard operating procedures.

Performance Measure

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

Environmental Assessment Program 2017-19 Biennium Budget
By Activities
Operating Budget = $35.3 Million; FTEs = 152.3

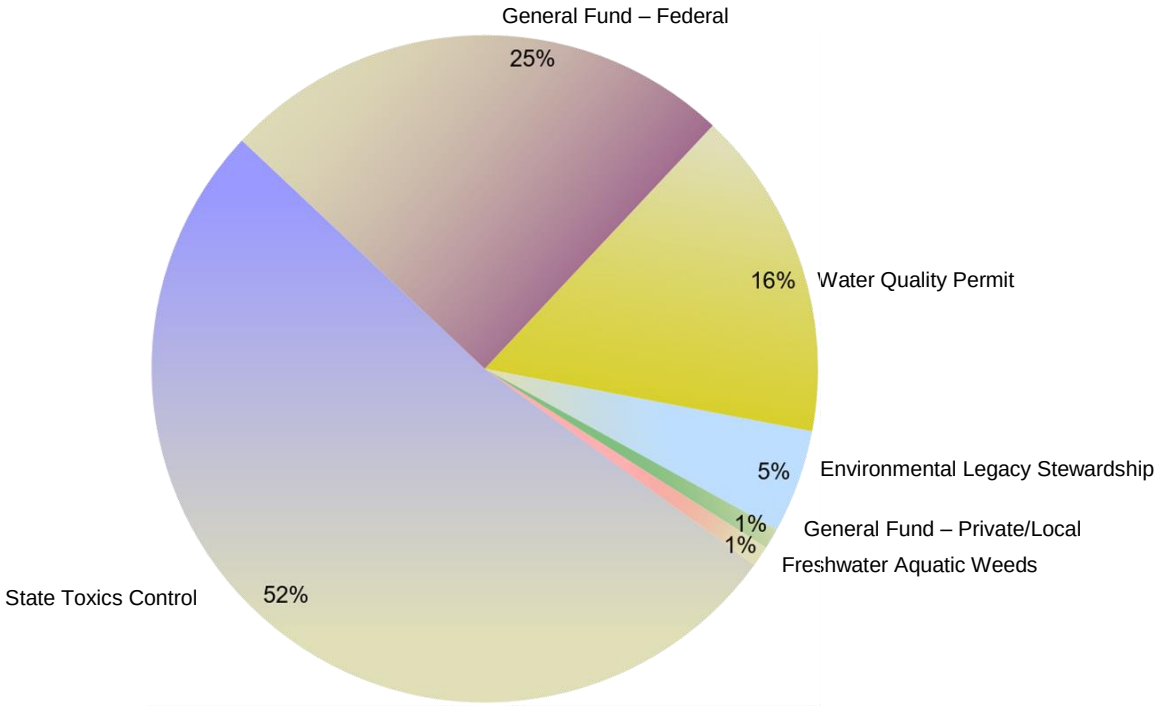


Activities	Amount	%	FTEs
Conduct Environmental Studies for Pollution Source Identification & Control (A007)	$14,960,205	42%	59.2
Monitor the Quality of State Waters & Measure Stream Flows Statewide (A027)	13,638,536	39%	52.5
Measure Contaminants in the Environment by Performing Laboratory Analyses (A026)	4,000,902	11%	30.1
Ensure Environmental Laboratories Provide Quality Data (A012)	1,579,164	5%	6.0
Improve the Quality of Data Used for Environmental Decision Making (A020)	1,117,014	3%	4.5
Environmental Assessment Operating Budget Total	**$35,295,821**	**100%**	**152.3**

Environmental Assessment Program 2017-19 Biennium Budget By Fund Source

Operating Budget = $35.3 Million **No Capital Budget**

FTEs = 152.3



Operating Fund Sources	Amount	%	Uses
State Toxics Control (173)	$18,230,721	52%	Water quality monitoring, toxics monitoring, marine sediment monitoring, groundwater investigations, water cleanup studies.
General Fund – Federal (001)	8,757,541	25%	Water quality monitoring, marine sediment monitoring, groundwater investigations, water cleanup studies, effectiveness monitoring.
Water Quality Permit (176)	5,790,462	16%	Water cleanup studies, groundwater investigations, technical assistance, compliance monitoring.
Environmental Legacy Stewardship (19G)	1,933,796	5%	Water quality monitoring, biological monitoring.
General Fund – Private/Local (001)	333,525	1%	Water quality monitoring, marine sediment monitoring, laboratory analytical work.
Freshwater Aquatic Weeds (222)	249,776	1%	Technical assistance, monitoring.
Operating Budget Total	**$35,295,821**	**100%**	
Environmental Assessment Operating & Capital Budget Total	**$35,295,821**		

Ecology's Tony Cooper performs a compressed air leak audit using an ultrasonic leak detection device at the Stemilt Fruit Growers plant in Wenatchee.

Program Mission

The mission of the Hazardous Waste and Toxics Reduction (HWTR) Program is to foster sustainability, prevent pollution, and ensure safe waste management of the millions of pounds of hazardous substances used and disposed of each year by businesses and households in Washington State.

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[5]. 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 6,700 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 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.

[5] 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.

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 70.295 RCW, Storm Water Pollution-Coal Tar*
- *Chapter 70.76 RCW, PBDE Flame Retardants*
- *Chapter 70.95 RCW, Hazardous Waste Reduction Act*
- *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*
- *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 working on implementing the 2015 plan update. Plan goals include 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.

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 time period.

During the 2015-17 Biennium, Ecology staff performed over 700 compliance inspections at facilities that generate or manage dangerous waste. These inspections resolved over 500 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 serious environmental violations at 49 percent of regulated businesses we inspected during the 2015-17 Biennium, down from 53 percent in the previous biennium. The number of inspections went down during the 2015-17 Biennium, due in part to staff retention issues and less federal funding.

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 still generate wastes that can cause pollution through mismanaging stormwater runoff.

The Local Source Control Partnership began in 2008 when Ecology developed interagency agreements with 16 local government agencies located in Puget Sound and Spokane River watersheds to conduct technical assistance visits to smaller businesses. The technical assistance is designed to help businesses understand and comply with dangerous waste and stormwater laws and provide assistance with spill prevention and cleanup preparedness.

For the 2017-19 biennium, there are 21 local partners. Five of these are funded through federal National Estuary Program grants (the rest are state funded). The total number of technical assistance visits, so far, conducted for the 2017-19 Biennium are 3,917, with a total of 30,281 to date. For the 2017-19 Biennium, Local Source Control received additional funding to expand technical assistance to the Columbia River Basin and develop an environmental monitoring element let by Ecology's Environmental Assessment Program. This funding added two additional partners in

Clark County that resulted in 687 additional visits.

Updated Rules

As EPA updates its regulations, the state is required to amend the Dangerous Waste Regulations. In the 2017-19 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 for adoption the criteria for legitimate recycling from EPA's definition of solid waste rule along with an exclusion for solvent contaminated wipes. Ecology is also proposing to adopt EPA's generator improvement rule, pharmaceutical rule, E-manifest rule and EPA's updates to RCRA's import and export rule for hazardous wastes.

For Washington-only regulations, Ecology intends to start rulemaking on the Persistent, Bioaccumulation and Toxins rule (Chapter 173-333 WAC). Changes to this rule may include evaluating lists of hazardous chemicals for possible deletion or inclusion. We will also adopt amendments to the Children's Safe Products – Reporting Rule (Chapter 173-334 WAC).

Pollution Prevention Planning

$60.5 million saved. That's what Washington businesses said Pollution Prevention (P2) planning has done for them since 2005. The actual total is probably much higher, since businesses are not required to report cost savings. That $60.5 million saved would pay for approximately 1,200 jobs.[6]

Businesses develop P2 plans if they generate more than 2,640 pounds of dangerous waste per year or if they are required to report as part of the national Toxic Release Inventory. These plans identify opportunities to voluntarily reduce hazardous substances used and waste generated.

During the 2017-19 Biennium, Ecology staff will focus on giving these and other facilities more assistance on safer alternatives to chemicals that they use. Less toxic chemicals used by these facilities will result in increased worker safety and a better 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 2015-17 Biennium, HWTR staff conducted over 600 business assistance visits. This is fewer visits than the previous biennium, due to the 50 percent drop in P2 visits. This is because there is a high vacancy rate for P2 staff at Ecology, and there is a greater emphasis on focused technical assistance that will get actual reduction results at a facility. We provided business-specific advice on how to:

- Reduce use of hazardous substances.

[6] Based on average Washington wage $50,000, as compiled by the U.S. Bureau of Labor Statistics.

- 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 use of consumer products, such as 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 2017-19, 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.
- Updating a roadmap for mainstreaming green chemistry in Washington State, including working with Northwest Green Chemistry and other organizations.
- Researching safer alternatives to copper boat paint.

Permitting and Corrective Action

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

Corrective actions are going on at 41 priority facilities, because of their significance as designated by EPA. Ecology expects to have most of these 41 cleanups finished, or in maintenance mode, by 2020. We had completed an overall average of 81 percent of the work at these facilities by the close of the

2015-17 Biennium. The full cleanup process takes 10-12 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.

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 Hazardous 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.

Reduce Persistent, Bioaccumulative, Toxic Chemicals and Promote Safer Consumer Products

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).

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:

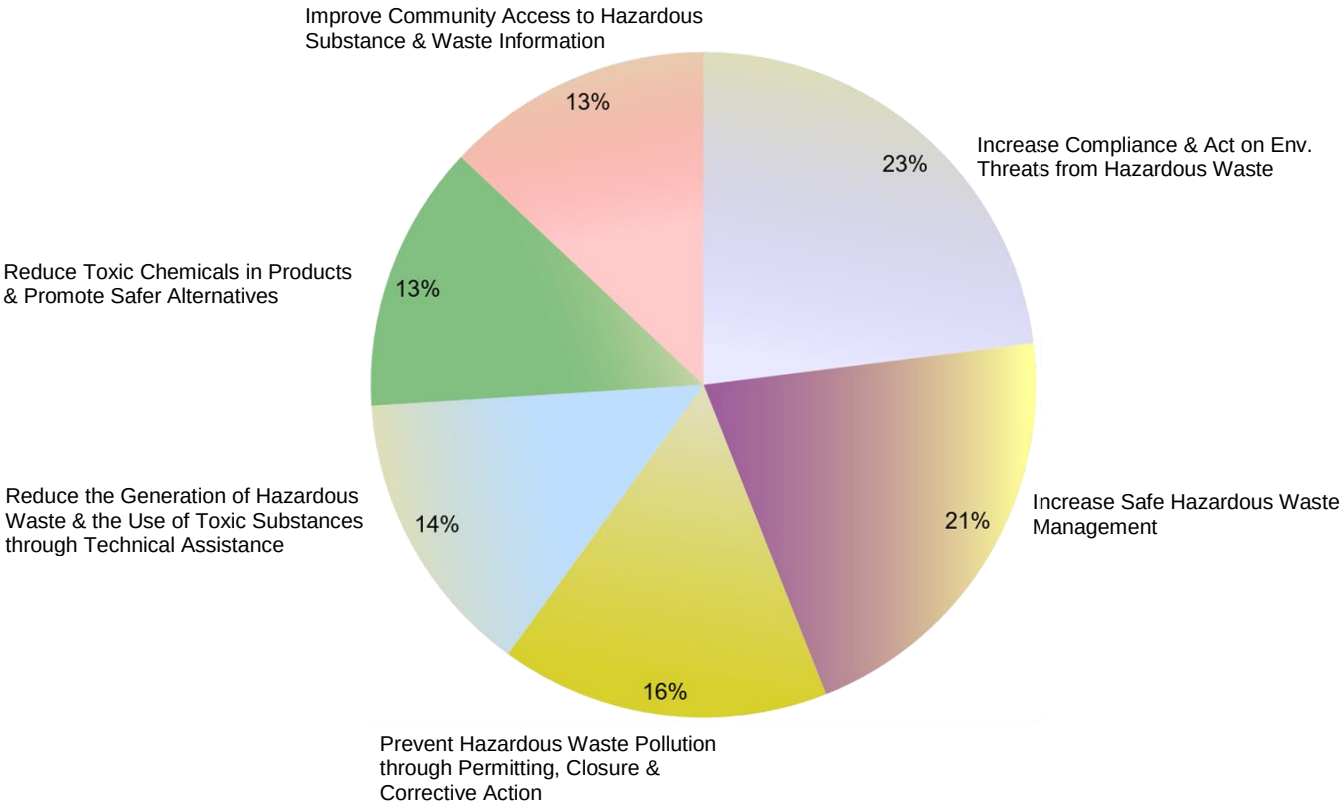
- Publishing and promoting the Shoptalk newsletter to 10,000 subscribers.
- Creating or updating 50 business publications each year and posting them to the web.
- Writing and distributing eight business pollution prevention (P2) success stories during the biennium.
- Updating our compliance and toxics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

Performance Measure

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

Hazardous Waste & Toxics Reduction Program 2017-19 Biennium Budget By Activities

Operating Budget = $35.8 Million; FTEs = 128.4

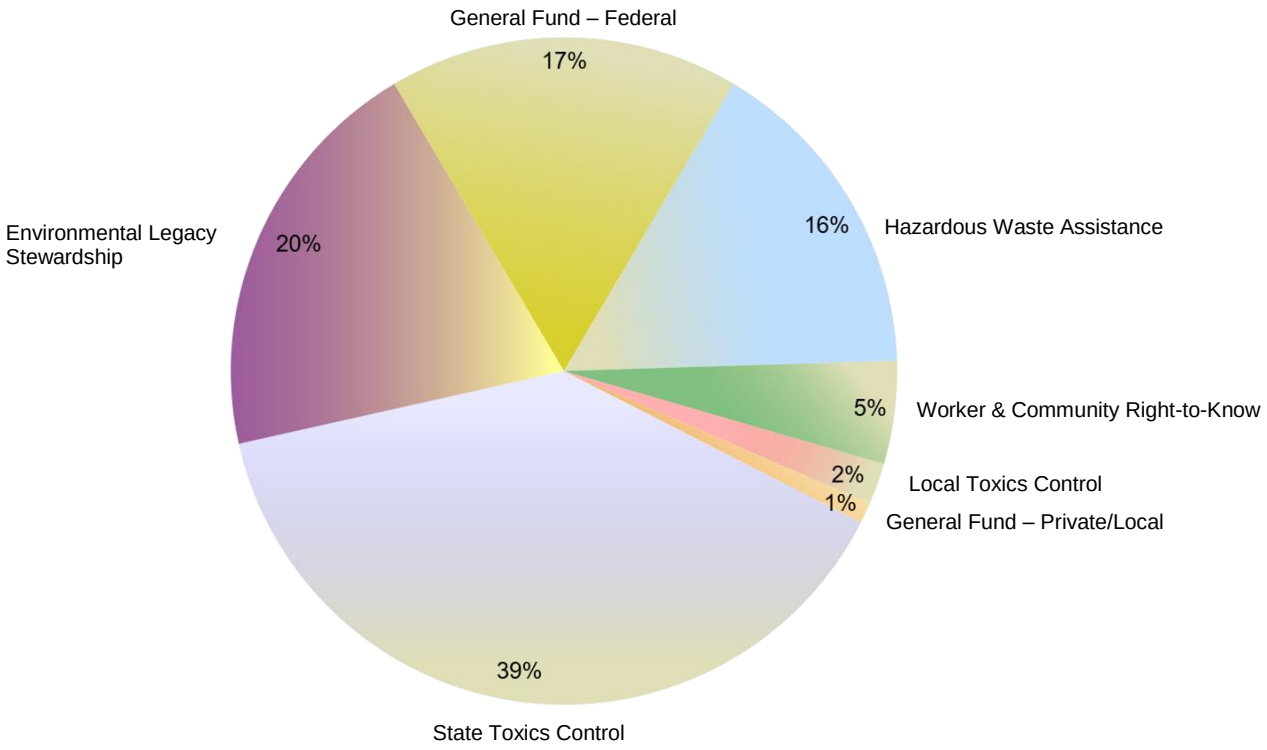


Activities	Amount	%	FTEs
Increase Compliance & Act on Environmental Threats from Hazardous Waste (A021)	$8,376,758	23%	37.8
Increase Safe Hazardous Waste Management (A022)	7,516,678	21%	11.9
Prevent Hazardous Waste Pollution Through Permitting, Closure & Corrective Action (A031)	5,717,470	16%	19.9
Reduce the Generation of Hazardous Waste & the Use of Toxic Substances Through Technical Assistance (A052)	4,960,722	14%	20.3
Reduce Persistent, Bioaccumulative, Toxic Chemicals and Promote Safer Consumer Products (A065)	4,631,302	13%	15.3
Improve Community Access to Hazardous Substance & Waste Information (A019)	4,628,971	13%	23.2
Hazardous Waste & Toxics Reduction Operating Budget Total	**$35,831,901**	**100%**	**128.4**

Hazardous Waste & Toxics Reduction Program 2017-19 Biennium Budget By Fund Source

Operating Budget = $35.8 Million **Capital Budget = $0.1 Million**[7]

FTEs = 128.4



Operating Fund Sources	Amount	%	Uses
State Toxics Control (173)	$14,032,952	39%	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.
Environmental Legacy Stewardship (19G)	7,084,596	20%	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.
General Fund – Federal (001)	6,061,702	17%	Grant funds received from EPA to implement federal Resource Conservation and Recovery Act (RCRA) and pollution prevention innovations.

[7] Funded entirely by State Toxics Control Account (173).

Hazardous Waste Assistance (207)	5,797,651	16%	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 citizens make better choices on what to use and buy.
Worker & Community Right-to-Know (163)	1,699,892	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.
Local Toxics Control (174)	622,918	2%	Compile information on hazardous substance use and make this information available to citizens and other public entities.
General Fund – Private/Local (001)	532,190	1%	Manage cleanups at facilities that treat, store, or dispose of hazardous waste.
Operating Budget Total	**$35,831,901**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
State Toxics Control (173)	$109,081	100%	Remove known toxic components in vehicles and appliances, including switches containing mercury, prior to crushing and shredding.
Capital Budget Total	**$109,081**	**100%**	
Haz. Waste & Toxics Reduction Operating & Capital Budget Total	**$35,940,982**		

Ecology's Nuclear Waste Program staff on a site visit to the pretreatment facility. This is one of 20 facilities of the waste treatment plant. There are five major facilities under construction to pretreat and vitrify the 56 million gallons of Hanford tank waste.

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 has 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.
- Removing the residual contaminated sludge left after removal of 38 cubic yards of disintegrating nuclear fuel rods that were stored in a water-filled concrete basin at the K-Reactor near the Columbia River.
- Monitoring approximately 190 square miles of contaminated groundwater that flows toward 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 37 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 hundreds of 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 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 Hanford 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.

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 70.105 RCW, Hazardous Waste Management Act*
- *Chapter70.105D RCW, Model Toxics Control Act*
- *Chapter 70.94 RCW, Clean Air 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 citizens.*
- *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 costliest effort in this program.

The federal budget continues to be a major concern. It has remained 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 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. Also, the partial collapse of the roof over PUREX Tunnel 1 in spring 2017 has diverted some funds to ensure that both PUREX tunnel 1 and 2 are stabilized. That incident also drew attention to aging infrastructure throughout the Hanford site and may lead to efforts to reassess sitewide cleanup priorities.

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.

In early 2017, USDOE completed removal of 99 percent of the waste from double-shell tank AY-102. The waste was removed after a leak was discovered in 2012. Overall, however, tank waste retrieval has slowed, and USDOE has proposed delays in all retrievals to shift resources to resolving WTP issues.

In addition, USDOE has stopped construction on some parts of the WTP due to technical issues. The part still under construction is approximately 63 percent complete. Ecology is working to ensure that USDOE meet its Consent Decree obligation to complete hot commissioning of the Direct Feed

Low Activity Waste (DFLAW) process by December 2023.

Continuing Hanford Cleanup Progress

Progress has continued on some major contaminated Hanford sites. 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 expects to reduce this plant on the Central Plateau to slab-on-grade during federal fiscal year 2018.
- Contaminated groundwater – As of fall 2017, more than 850 million gallons of contaminated groundwater had been treated in the central Hanford "200 Area," removing 64,000 kg of nitrate, 1,600 kg of carbon tetrachloride, 77 kg of chromium, and 305 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 will be repackaged and moved to dry storage at T Plant. 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.

Right now, as a result 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.

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 by cleaning up contaminated sites from past activities. Radioactive and hazardous contaminants are removed, residual contaminants are contained and monitored, and mitigation of natural resource damage on Hanford 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 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.

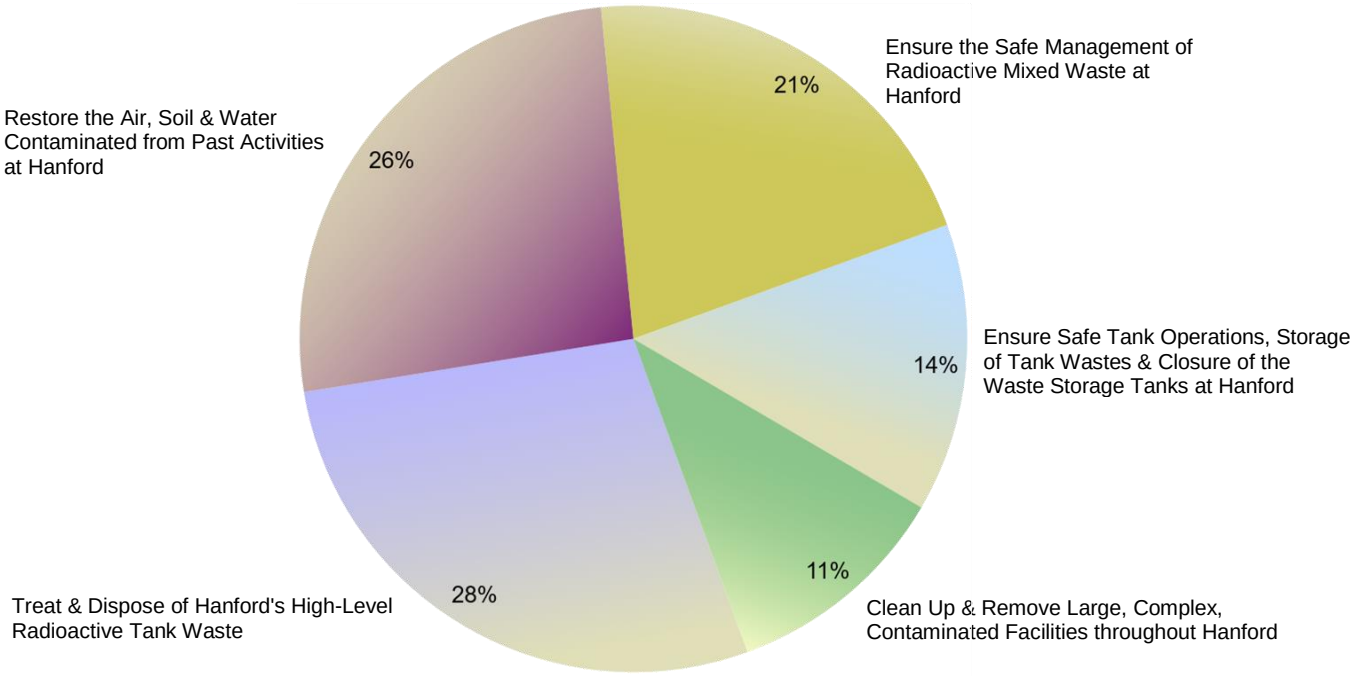
Expected Results
- All major facilities on the Hanford site will be decontaminated and decommissioned and either demolished or placed into a long-term safe storage configuration.
- Removal and remediation actions for the 324 Building and soil contamination will be performed.
- Capsules containing cesium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

Alexandra Smith, Program Manager, 509-372-7905

Nuclear Waste Program 2017-19 Biennium Budget
By Activities
Operating Budget = $25.5 Million; FTEs = 95.9

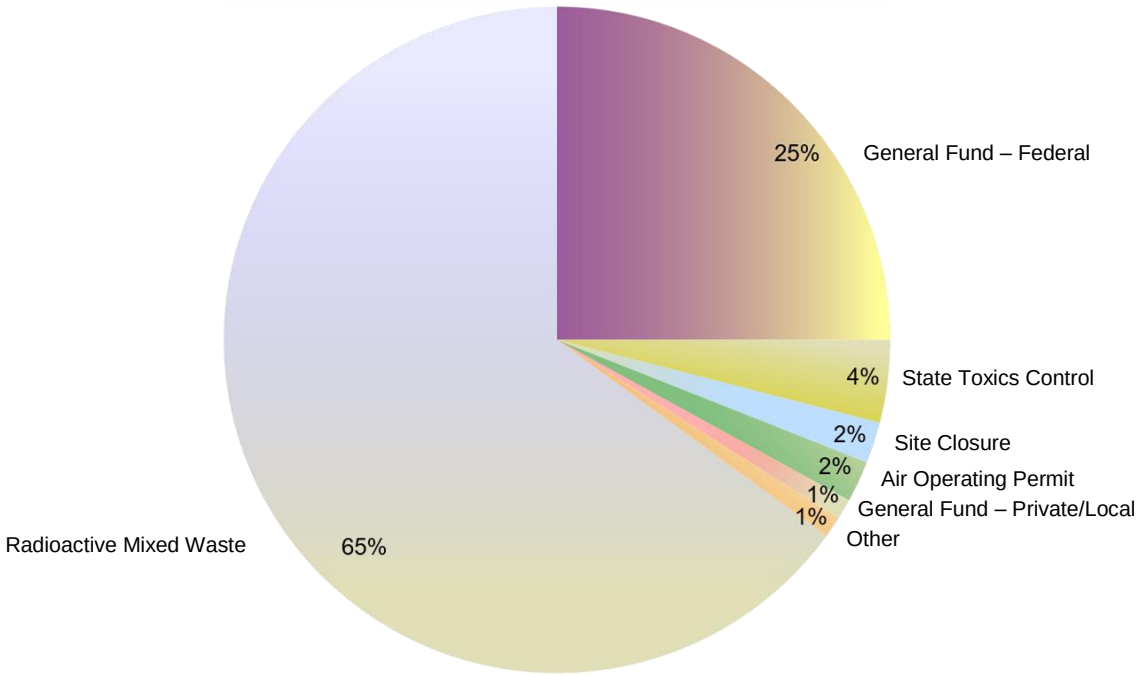


Activities	Amount	%	FTEs
Treat & Dispose of Hanford's High-Level Radioactive Tank Waste (A016)	$7,230,337	28%	32.0
Restore the Air, Soil & Water Contaminated from Past Activities at Hanford (A014)	6,598,568	26%	16.4
Ensure the Safe Management of Radioactive Mixed Waste at Hanford (A018)	5,397,098	21%	18.4
Ensure Safe Tank Operations, Storage of Tank Wastes & Closure of the Waste Storage Tanks at Hanford (A017)	3,613,024	14%	17.0
Clean Up & Remove Large, Complex, Contaminated Facilities Throughout Hanford (A015)	2,680,553	11%	12.1
Nuclear Waste Operating Budget Total	**$25,519,580**	**100%**	**95.9**

Nuclear Waste Program 2017-19 Biennium Budget By Fund Source

Operating Budget = $25.5 Million **Capital Budget = $2.1 Million[8]**

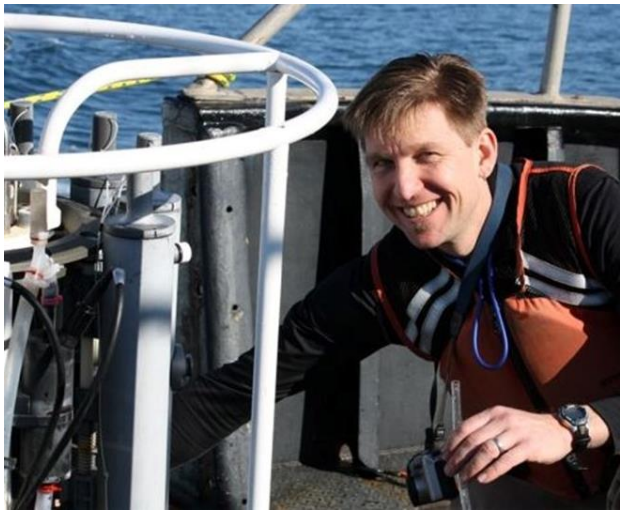
FTEs = 95.9



Operating Fund Sources	Amount	%	Uses
Radioactive Mixed Waste (20R)	$16,677,840	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)	6,376,483	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.
State Toxics Control (173)	1,062,882	4%	Support regulatory oversight of hazardous and radioactive mixed wastes on Hanford and other mixed waste facilities, treatment of Hanford wastes, provide regulatory assistance information to the USDOE and Congressional staff. Oversee remediation of historic hazardous substance releases at the commercial low level radioactive waste disposal facility. (Commercially operated disposal site on Hanford).

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

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 Operating Permit (219)	416,199	2%	Conduct permitting and compliance assurance activities for air emissions sources on the Hanford site.
General Fund – Private/Local (001)	163,854	1%	All moneys except the $600 required for Ecology's annual prime lease payment to USDOE are passed through to Benton County.
Other:			
Water Quality Permit (176)	131,294	<1%	Activities needed to maintain safe facilities for treating wastewater discharges at the Hanford site.
General Fund – State (001)	78,158	<1%	Regulation of air pollutants at new or modified Hanford facilities subject to the Clean Air Act.
Air Pollution Control (216)	30,870	<1%	Reduce air pollution from industrial sources.
Operating Budget Total	**$25,519,580**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
Site Closure (125)	$2,050,000	100%	Investigation, closure, and decommissioning of the Hanford low-level radioactive waste disposal facility. (Total Capital appropriation is $8,550,000. $6,500,000 is unallotted pending acquisition of soils for cover material.)
Capital Budget Total	**$2,050,000**	**100%**	
Nuclear Waste Operating & Capital Budget Total	**$27,569,580**		



Dr. Jude Apple, Research Coordinator at Ecology's Padilla Bay National Estuarine Research Reserve, collecting information on abiotic water conditions and water samples for microbial water column respiration measurements.

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 citizens. 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 RCW 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

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

Issues

Shoreline Master Program Updates

Shoreline Master Programs (SMPs) are Ecology's most 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 Shoreline Master Programs. This includes supporting completion of the comprehensive updates required in the Shoreline Management Act (nearly three quarters of the 263 cities and counties have completed their updates). Beginning in the 2017-19 Biennium, it will also include supporting the required periodic review and update of SMPs. As SMPs are completed, Ecology will shift its emphasis to technical assistance on implementing plans 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 flood waters, 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, in-lieu fees, 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 completing work with the Department of Commerce on a six-year strategy to guide investments that help protect and restore Puget Sound watersheds. The strategy uses watershed characterization to guide land-use decisions and outlines three strategic areas of investment:

- Protecting and restoring watersheds.
- Effectively managing stormwater.
- Protecting ecologically significant and working lands.

Much of the first grant cycle is nearing completion as the first watershed grant expires in January 2018. 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.

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:

- Completing a marine spatial plan for Washington's Pacific Coast that helps us understand potential impacts of ocean uses and establishes 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 citizens 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 growing 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 2013, the Washington Legislature provided $50 million in grant funds for FbD

projects in the 2013-15 Biennium. The 2015-17 capital budget included $35.5 million, and 2017-19 included $35.4 million.

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, and debris removal. Assistance has included logistical support and direct service. These efforts will continue in the 2017-19 Biennium as these hazards continue to threaten Washington's communities.

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.

With an additional one million people expected to move to the Puget Sound area by 2025, Washington must become more effective in protecting our shorelines and upland habitats. In the 2017-2019 Biennium, Ecology will help counties and cities update their rules that protect shorelines and other important habitats, such as SMPs and critical area ordinances. 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 State 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 will include 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. The Chehalis Basin today has no salmon species listed under the

Endangered Species Act, but if the decline continues, listings could occur.

The Office of Chehalis Basin will, in collaboration with federal and other state agencies, and tribal and local leaders:

- Complete and begin to implement the Aquatic Species Restoration Plan.
- Begin project-level environmental review for raising the Chehalis/Centralia airport levee and the dam being considered on the main stem Chehalis River.
- Complete detailed hydraulic modeling and conceptual design to test the concept of "restorative flood protection" in the Newaukum River subbasin.
- Complete the design and evaluation of environmental impacts associated with the Aberdeen/Hoquiam North Shore Levee project.
- Continue the evaluation of 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.
- Draft and circulate 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).
- Implement 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 acts. 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 Plans.

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.

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 citizen 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 work.

Provide Streamlined Project Permitting for Transportation Projects

This item is still active in the 2017-19 Biennium. Ecology is combining this activity with another in the 2019-21 Biennium.

Ecology contracts with the Washington State Department of Transportation (WSDOT) to provide dedicated personnel focused on improving and implementing the permitting and regulatory process for state transportation projects. To address traffic congestion and allow businesses to efficiently transport products in Washington, the Legislature and governor have approved significant spending on transportation projects with the expectation of expedient project delivery. Interagency agreements with WSDOT allow Ecology to permit and mitigate transportation projects through multi-agency transportation permitting teams, multi-agency programmatic approvals, watershed-based mitigation alternatives, and assigning dedicated organizational infrastructure at Ecology.

Currently, this activity is wholly funded by interagency agreements with WSDOT. Interagency agreement dollars and FTEs are not reflected in the activity inventory.

Expected Results

- State transportation projects meet environmental laws.

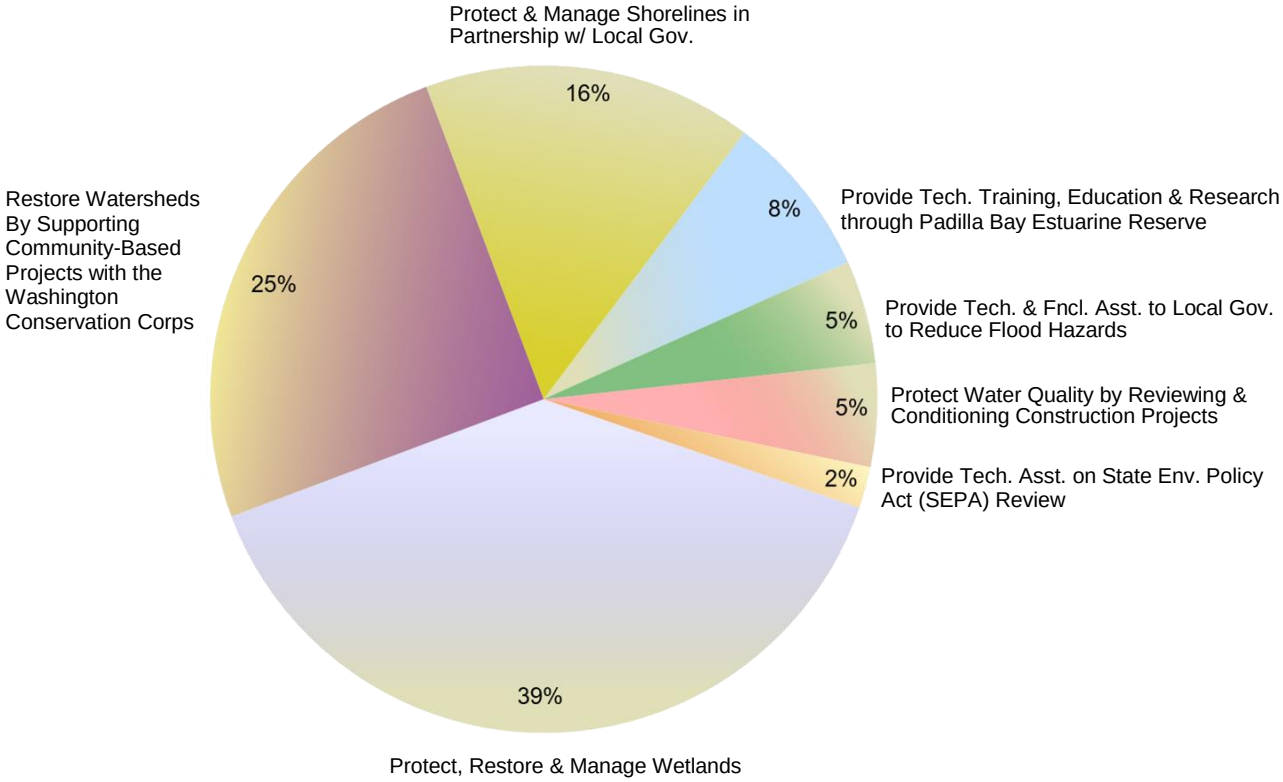
- WSDOT gets technical help on reducing impacts and receives timely decisions.
- Projects achieve compliance with permit conditions.

Performance Measure

- Percentage of reviews and decisions from Ecology's transportation team made within agreed upon timeframes for WSDOT's permit documents.

Shorelands & Environmental Assistance Program 2017-19 Biennium Budget By Activities

Operating Budget = $63.4 Million; FTEs = 160.4

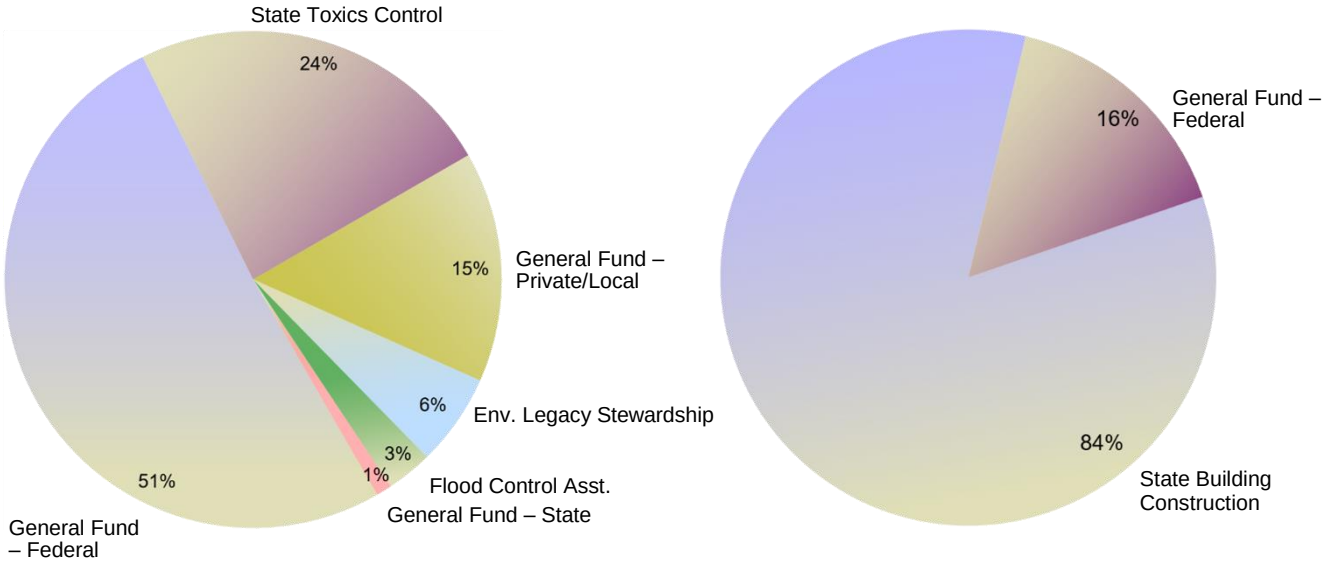


Activities	Amount	%	FTEs
Protect, Restore & Manage Wetlands (A038)	$24,713,135	39%	28.3
Restore Watersheds by Supporting Community-Based Projects with the Washington Conservation Corps (A056)	16,170,904	25%	57.8
Protect & Manage Shorelines in Partnership with Local Governments (A036)	10,202,461	16%	29.3
Provide Technical Training, Education & Research through Padilla Bay Estuarine Reserve (A042)	5,111,751	8%	17.5
Provide Technical & Financial Assistance to Local Governments to Reduce Flood Hazards (A040)	2,873,619	5%	8.0
Protect Water Quality by Reviewing & Conditioning Construction Projects (A037)	2,823,283	5%	12.6
Provide Technical Assistance on State Environmental Policy Act (SEPA) Review (A041)	1,471,033	2%	6.1
Provide Streamlined Project Permitting for Transportation Projects (A058)	0	0%	0.8
Shorelands & Environmental Assistance Operating Budget Total	**$63,366,186**	**100%**	**160.4**

Shorelands & Environmental Assistance Program 2017-19 Biennium Budget By Fund Source

Operating Budget = $63.4 Million **Capital Budget = $113.4 Million**

FTEs = 160.4



Operating Fund Sources	Amount	%	Uses
General Fund – Federal (001)	$32,320,023	51%	Primary grant: National Oceanic and Atmospheric Administration Coastal Zone Management. 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. Padilla Bay operating grants. Washington Conservation Corp activities. FEMA flood management federal grant. EPA Performance Partnership Grant for water quality certifications. FEMA Floodplain Map Modernization Grant.
State Toxics Control (173)	15,352,780	24%	Base funding for Washington Conservation Corps to support crews performing natural resource restoration projects for federal, state, and local agency sponsors. Match for federal Coastal Zone Management and wetlands grants. 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.
General Fund – Private/Local (001)	9,194,343	15%	Coastal erosion. Permit and project reviews. Padilla Bay. Washington Conservation Corps.

Environmental Legacy Stewardship (19G)	4,024,293	6%	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.
Flood Control Assistance (02P)	2,019,747	3%	Administer Flood Control Assistance Program. Grants to local governments for comprehensive flood mitigation projects, flood hazard mitigation plans, repair of damaged dikes and levees, emergency flood response.
General Fund – State (001)	455,000	1%	Northwest Straits commission grants to marine resource committees.
Operating Budget Total	**$63,366,186**	100%	
Capital Fund Sources	**Amount**	**%**	**Uses**
State Building Construction (057)	$95,637,448	84%	Habitat Mitigation. Floodplain management and control grants. Floodplain by Design.
General Fund – Federal (001)	17,754,905	16%	Breazeale Interpretive Center, Padilla Bay boat shed. Federal grant awards for coastal wetland acquisitions (funds passed through to local entities).
Capital Budget Total	**$113,392,353**	**100%**	
Shorelands & Env. Assistance Operating & Capital Budget Total	**$176,758,539**		

Spill Prevention, Preparedness & Response Program

Dale Jensen, Program Manager, 360-407-7450

Jason Reichert, Ecology's Oil Transfer Inspect Lead, inspects lubricant delivery to an oil barge. Oil transfer inspections are a crucial part of Ecology's oil spill prevention work.

Program Mission

The mission of the Spill Prevention, Preparedness, and Response Program (Spills Program) is to protect Washington's environment, public health, and safety through a comprehensive spill prevention, preparedness, and response program. 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 ship, pipeline, rail, and road. 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 the market and new technological innovations. These threats—whether on land or water—endanger public health, safety, and the environment, and can ultimately damage the state's economy and quality of life.

Authorizing Laws

The harm caused by major oil spills and other toxics 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, the general public, and others.*

Issues

The Spills Program is an adaptive organization that takes pride in responding to shifting political climates, dynamic economic trends, legislative direction, and public demands. Our core services include vessel and facility inspections, oil transfer monitoring, plan review and approvals, contingency plan drills, environmental restoration, and 24/7 response to oil and hazardous materials spills. In delivering these services, the Spills Program plays a key role in minimizing the long-term release of toxics into the environment and helps protect the waters, 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 the changing spill risks facing Washington State. A comprehensive list of tasks is described in the Spills Program's 2017-2019 Program Plan. These tasks address the following:

- The need to secure sustainable funding for Ecology to continue to manage oil spill risk, planning, and response activities.
- Risk assessments regarding movement of oil over waters of the state and inland.

Develop a Funding Report by July 1, 2020

E2SSB 6269 requires Ecology to provide a report to the Legislature by July 1, 2020, regarding its activities that will continue and end after fiscal year 2019; recommendations on funding sources for the program; recommendations on allocating tax funds to state agencies; and forecast future funding needs.

Complete a Vessel Traffic Safety Evaluation and Assessment for the Columbia River

The Columbia River Vessel Traffic Evaluation and Safety Assessment (CRVTSA) began in the 2015-17 Biennium and is nearing completion in its final form. We expect to submit the final document to the Legislature by December 15, 2017. This project work is ahead of schedule; the final version is technically due to the Legislature by June 30, 2018.

Complete a Washington State Rail Transportation Safety Assessment (RTSA) and a Grays Harbor Vessel Traffic Risk Assessment (GHVTRA)

In this biennium, we will work on two new risk assessment projects regarding the changing risk picture involving rail movements in our state, and a waterway risk assessment for Grays Harbor and its approaches.

The Washington RTSA will focus on expanding our work in the 2014 Marine and Rail Oil Transportations Study and strive to characterize movements of all Class 3 flammable liquids transported by bulk over rail within the state. The project will also involve risk assessment work focused on specific locations, services, public facilities, and natural resources that could be impacted during an incident involving rail transport of Class 3 flammable liquids. We expect this work will involve other state and federal agencies and commissions, industry, stakeholders, and tribes. This work should better inform prevention, preparedness, and response policies and capabilities for emergencies and spills involving these commodities transported by rail. The Washington RTSA will likely be a two to four year effort.

The GHVTRA will focus on assessing changes in oil spill risk from vessels in the approaches, coming across the Bar, and as they transit the Grays Harbor channel to and from port terminals and anchorage areas. This work will help inform stakeholders, tribes, and decision makers to ensure prevention,

preparedness, and response measures are in place to reduce the risk of major oil spill incidents. This work will involve significant collaboration with the Maritime Transportation System community and the Grays Harbor Safety Committee. It will involve internal work and deliverables from the Spills Program staff and contractor support as we perform the Formal Safety Assessment five-step process created by the International Maritime Organization. It is the internationally approved waterway risk assessment process that allows for global consistency and repeatability. We intend for this process to inform our risk assessment work in future biennium maritime risk analysis activities. We expect the GHVTRA to be a two to four year effort.

Review All Existing Geographic Response Plans (GRPs), Provide a Gap Analysis Report to the Legislature, and Continue GRP Developments During the Biennium

ESHB 1449 directs Ecology to continue developing and enhancing GRPs for inland and marine areas at risk from oil spills, and it outlines requirements for completing new plans and plan updates. Ecology must provide a report to the Legislature by December 31, 2017, of a review of state GRPs and federal requirements. The report will identify the number of GRPs that will need to be developed or updated.

To protect sensitive state resources, Ecology will develop new GRPs for areas of the state that do not currently have plans, and we will update and maintain existing GRPs to keep them current. The work will include data collection and stakeholder engagement, and we will use geospatial planning tools and up-to-date, at-risk information to develop strategies.

Improve the Equipment Grant Program to Fill Critical Gaps in Oil and Hazmat Response

In 2007, Ecology established 99 response equipment caches throughout the state to assist local and tribal responders to provide rapid spill containment and cleanup capability. New challenges from transporting crude oil in unit trains have resulted in the need for more response equipment caches and replenishing the existing caches. In 2015, ESHB 1449 directed Ecology to create and administer a grant program that provides firefighting equipment and oil spill and hazmat response equipment and training to local responders. This grant program continues to evolve as we look for better ways to provide equipment where it is most needed. The work includes the following:

- Convening a stakeholder group to help develop and administer the grant program.
- Performing a risk assessment and gap analysis to identify the highest priority training and equipment needs.
- Developing and delivering a training program for first responders and equipment recipients.
- Planning for ongoing implementation to maintain the grant program and equipment.
- Working with our Northwest Area Committee response partners to develop air toxics monitoring for spills and fires that protect the health of Washington's citizens.

Continue Transboundary Work

Work continues to establish a transboundary work group with British Columbia to reduce oil spill risks posed by vessel traffic in the Salish Sea. The goal is to achieve comparable prevention capabilities on both sides of the border and speak with a unified voice.

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 Prevention, Preparedness & Response Program

Dale Jensen, Program Manager, 360-407-7450

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 high-risk vessels boarded and inspected.
- Gallons of oil spilled to surface water during an oil transfer for every 100 millions of gallons transferred.
- Percentage of 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 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

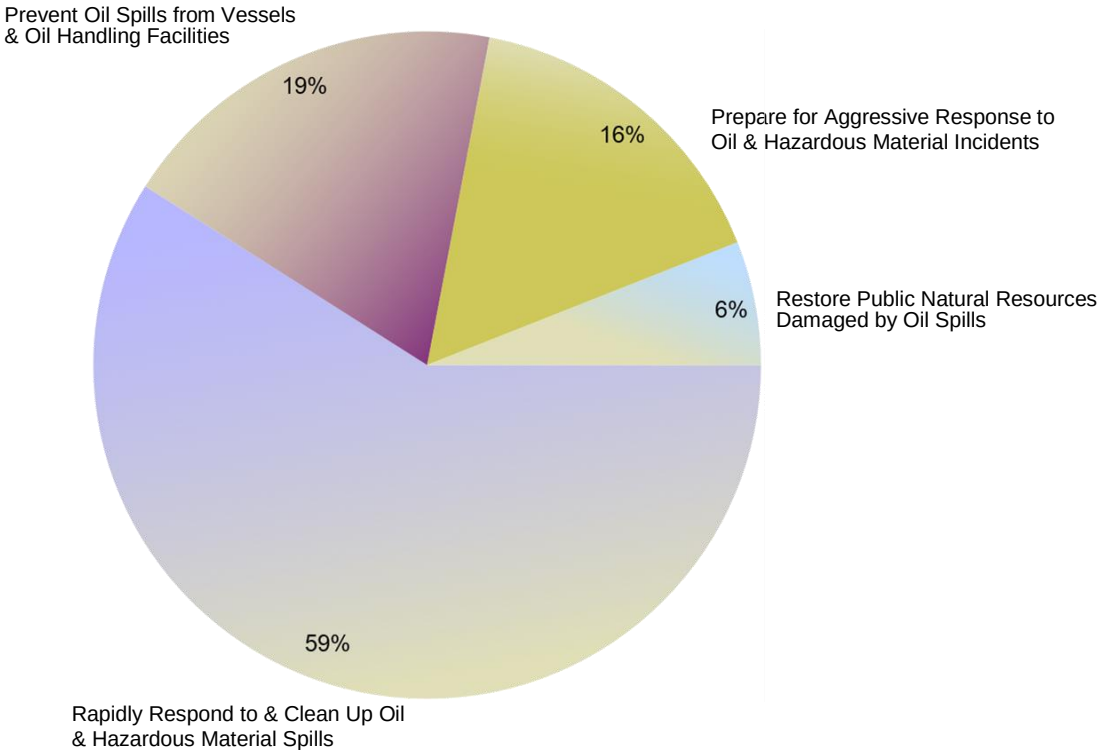
- Environmental impacts to publicly owned natural resources from oil spills are partially mitigated (compensated for) using damage assessment funding.
- Natural resource damage assessment is done on 100 percent of oil spills where 25 or more gallons reach surface waters.
- Priority wildlife habitat is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

Performance Measure

- Percentage of completed restoration projects that meet plan specifications.

Spill Prevention, Preparedness & Response Program 2017-19 Biennium Budget By Activities

Operating Budget = $33.6 Million; FTEs = 83.6

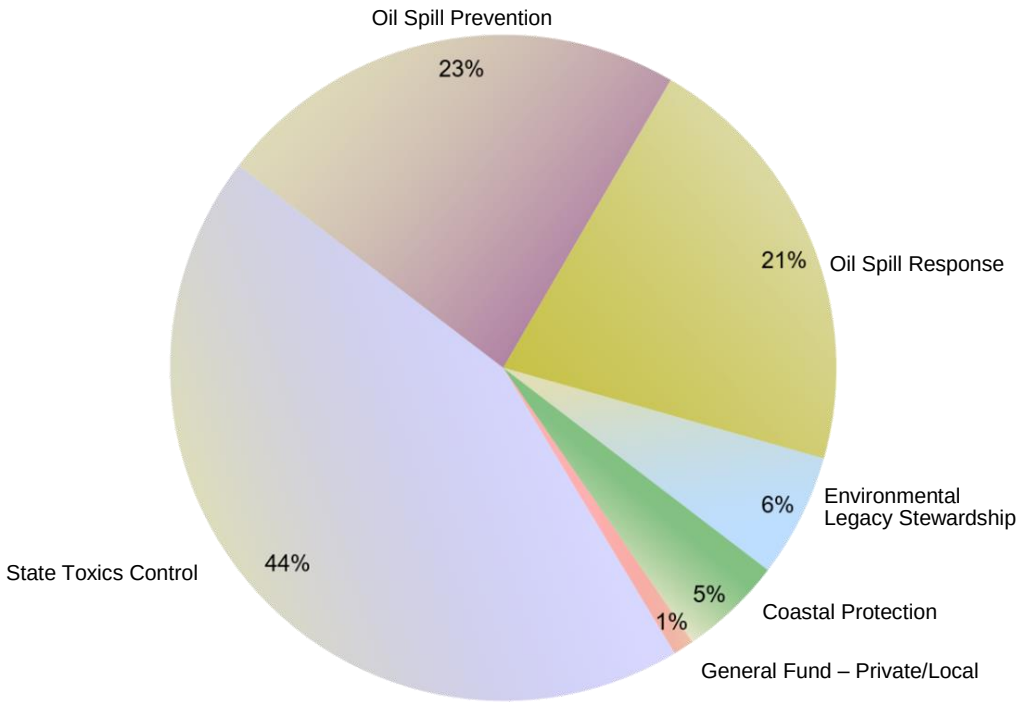


Activities	Amount	%	FTEs
Rapidly Respond to & Clean Up Oil & Hazardous Material Spills (A054)	$19,807,495	59%	38.8
Prevent Oil Spills from Vessels & Oil Handling Facilities (A033)	6,473,116	19%	20.5
Prepare for Aggressive Response to Oil & Hazardous Material Incidents (A030)	5,181,246	16%	21.6
Restore Public Natural Resources Damaged by Oil Spills (A055)	2,094,730	6%	2.7
Spill Prevention, Preparedness & Response Operating Budget Total	**$33,556,587**	**100%**	**83.6**

Spill Prevention, Preparedness & Response Program 2017-19 Biennium Budget By Fund Source

Operating Budget = $33.6 Million **No Capital Budget**

FTEs = 83.6



Operating Fund Sources	Amount	%	Uses
State Toxics Control (173)	$14,879,015	44%	Oil spill prevention, preparedness, and hazardous material and oil spill response work including drug lab clean up.
Oil Spill Prevention (217)	7,747,092	23%	Oil spill prevention and preparedness work.
Oil Spill Response (223)	7,076,000	21%	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.
Environmental Legacy Stewardship (19G)	1,960,610	6%	Hazardous material and oil spill response and cleanup work.
Coastal Protection (408)	1,556,000	5%	Restoration of natural resources damaged by oil spills and non-personnel related oil projects, research, and studies.
General Fund – Private/Local (001)	337,870	1%	British Columbia & Pacific States oil spill task force.
Operating Budget Total	**$33,556,587**	**100%**	
Spill Prev., Prep. & Resp. Operating & Capital Budget Total	**$33,556,587**		

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Port Gamble is one of the major cleanups. It is a significant site cleaned up under the Puget Sound Initiative.

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 12,600 toxics contaminated sites since the mid-1980s. Over 6,600 of these sites resulted from underground storage tanks leaking contents into the environment and contaminating the soil or groundwater. Of the 12,600 contaminated sites, 53 percent (about 6,700) require no further cleanup action, and 31 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, and backyards, as well as 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 citizens. 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.*
- *Citizens 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

Managing Capital Budget

Declining oil prices have had a significant impact on Hazardous Substance Tax revenues, which are the main source of funding for the three Model Toxics Control Act accounts. This and actions and assumptions included in the past several enacted budgets resulted in over-commitment of the accounts. Managing the accounts to ensure adequate cash flow has required MTCA operating budget reductions, loans to support the MTCA accounts, and delays in cleanup work.

These revenue fluctuations and mandated delays to publicly funded cleanup projects produced a noticeable loss in momentum. Fortunately, with a new 2017-19 capital budget, the Legislature addressed the MTCA revenue shortfall and made funding available to sign toxics site cleanup grants and contracts. Cleanups put into motion between 2005 and 2009 now have the funding to finish or start the next phase.

There remains a growing load of contaminated site work. The public sector cleanups, while significant for the public benefits they provide, don't dominate the workload for the program.

Every year, more contaminated sites are identified than can be cleaned up. Since 2000, nearly 4,500 sites have been reported (264 per year average). During that same time period, nearly 3,350 sites have completed cleanups (185 per year average), contributing to a growing backlog of sites that need to be cleaned up.

Land Availability for Affordable Housing

If funding for core cleanup work is stabilized in the future, TCP could restart existing publicly funded projects and engage in new opportunities to advance cleanup. One opportunity is creating partnerships and completing cleanups so that affordable housing can be built. The lack of affordable housing is a statewide issue. 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. 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

The effective use of regulatory tools 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 wide-spread 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 the U.S. Environmental Protection Agency (EPA) is

also 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 200 confirmed or suspected contaminated sites within the Superfund site. Also, there is approximately 32 square miles of stormwater and combined sewer overflow (CSO) drainage. The 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, working with local government and businesses and industries in the Lower Duwamish, is 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 112 miles through Post Falls and Spokane to Lake Roosevelt, and eventually to the Columbia River. It encompasses over 6,500 square miles in Washington and Idaho.

Testing has shown high amounts of PCBs. PCBs get into the Spokane River through industrial discharges, wastewater treatment plants, and stormwater. PCBs deposited in sediments from historical discharges also find their way into 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 approach to do this is through the Spokane River Urban Waters Team. This team is 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.

Both the Lower Duwamish Waterway and the Spokane River have several major concerns 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 then to people.
- Have industry and discharges along the rivers, in addition to people who live and work there.
- Have current and active industry (unlike other major cleanups where polluting activities have declined).

Efforts between the Toxics Cleanup and Water Quality Programs at Ecology are critical and ongoing. Challenges arise between the programs and complementary federal divisions because the regulations that guide them are not always in sync with the cleanup efforts.

Underground Storage Tanks

Ecology currently regulates more than 9,000 underground storage tanks (USTs) at more than 3,300 facilities. Facilities include gas stations, industrial and commercial facilities, and governmental facilities. Ecology works to ensure these tanks are installed, managed, and monitored to prevent releases into the environment. Ecology conducts compliance inspections at about 1,200 facilities each year,

and provides technical assistance to tank owners.

Compliance inspections and technical assistance help ensure tank owners and operators have equipment that won't allow spills or leaks into the environment. This is especially critical in areas where groundwater is a source of drinking water.

High owner and operator turnover can be challenging to continued compliance. Operator training has been required since 2012. Ecology has approved third-party training programs and developed its own no-cost retraining program, Washington Tank Operator Training (WATOT). Operator training has significantly increased compliance. Since 2012, the percentage of USTs passing operational compliance on the day of inspection has increased from 45 percent to nearly 70 percent.

Washington has a federally approved UST program. To maintain state program approval, the state's requirements must be revised to be at least as stringent as the new federal requirements by October 2018. Ecology has undertaken rulemaking to amend the state rule, Chapter 173-360 WAC, to incorporate any new federal requirements not already included in the state rule. Ecology plans on adopting the new rule on or after June 30, 2018 and reapply for state program approval by October 2018.

Leaking Underground Storage Tanks

There are over 12,600 contaminated sites in Washington. Over one-half of these sites (6,640) have petroleum contamination from leaking underground storage tanks (LUSTs). Of these sites, well over half (62 percent) have been cleaned up. The state's current goal is to clean up 83 LUST sites each year. The state receives federal funding from EPA each year to help clean LUST sites.

In April 2017, the Legislature expanded the state's capacity to provide assistance and closure to people who voluntarily clean up LUST sites by authorizing the Pollution Liability Insurance Agency (PLIA) to establish a technical assistance program for petroleum storage tank systems (see Substitute House Bill 1266). To support PLIA's implementation of this new authority, the EPA allowed Ecology to transfer a portion of the federal LUST grant to PLIA.

The state now has two programs for providing technical assistance to people who voluntarily clean up tank sites: Ecology's Voluntary Cleanup Program (VCP) and PLIA's Petroleum Technical Assistance Program (PTAP). PLIA focuses on less complex petroleum-contaminated sites, which allows Ecology to work on more complex petroleum-contaminated sites, as well as other types of sites. These programs working together will enable more LUST sites to be cleaned up. More information about PLIA and all of their programs is available at https://www.plia.wa.gov/.

Voluntary Cleanup Program Use Grows as the Economy Recovers

The Voluntary Cleanup Program (VCP) provides technical assistance and closure to people who voluntarily clean up their contaminated sites. Completing site cleanups not only helps protect human health and the environment, it also makes it easier for property owners during property transactions.

In general, owners of contaminated sites may enroll in the VCP if Ecology is not currently requiring work under an order or decree and the site is not too complex. Entering VCP is not an admission of liability, and owners can withdraw from the program at any time.

The benefits of entering the VCP include control over the scope and schedule of the cleanup and the extent of state involvement. Limitations include no liability or contribution protection.

Interest in the VCP continues to create a workload challenge for Ecology. Seattle is currently the second fastest growing city in the nation. The number of property owners that

approach Ecology for technical assistance with cleanups fluctuates with changes in the real estate market, redevelopment needs, and access to financing. With the steady rise in redevelopment and the economy, more owners are requesting to enter the VCP and begin cleanup actions.

The recent jump in requests to enter the VCP happened at the same time the Toxics Cleanup Program's budget and staff positions declined. This decline has been in part due to the current MTCA challenges. The inability to retain and rehire staff has also contributed.

This "perfect storm" caused the TCP Program to quickly restructure the VCP. Ecology created a wait list to normalize the flow of new VCP work and to provide more certainty for people entering the program. We developed checklists to ensure documents submitted for review were complete and improve turn-around time.

Finally, as stated earlier, the Legislature expanded the state's capacity by providing PLIA the authority to provide technical assistance at less complex LUST sites and, in some cases, provide financial support for those cleanups.

Workforce Management

The number of staff available to respond to increased sites reported to Ecology has created a workload issue, particularly in our Northwest Regional Office (NWRO). Unpredictable fluctuations in demand for staff time and services over short time periods also contributes. These workload issues are compounded by recruitment and staff retention challenges for the program in this competitive job market. It has been difficult to make competitive offers. Our NWRO area has over half of the contaminated sites in the state, the most sustained development rate, and the highest cost of living of all our office locations.

To put this into perspective, program vacancy rates typically run near four percent. The Toxics Cleanup Program's management of the agencywide $5 million MTCA reduction in 2017-19 imposed another five percent on top of that. Add on the difficulty of retaining and recruiting staff, and the vacancy rates are over ten percent, with rates as high as 18 percent in the NWRO.

Because the program is unable hire for all vacancies, procedures and tools have been put in place to quickly train new staff. Cleanup project manager groups are organized for new and senior staff to share knowledge. Ecology benefits from senior staff downloading their knowledge before leaving, and new staff understand more quickly how their unique skills and abilities contribute to the work.

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 will increase.

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.

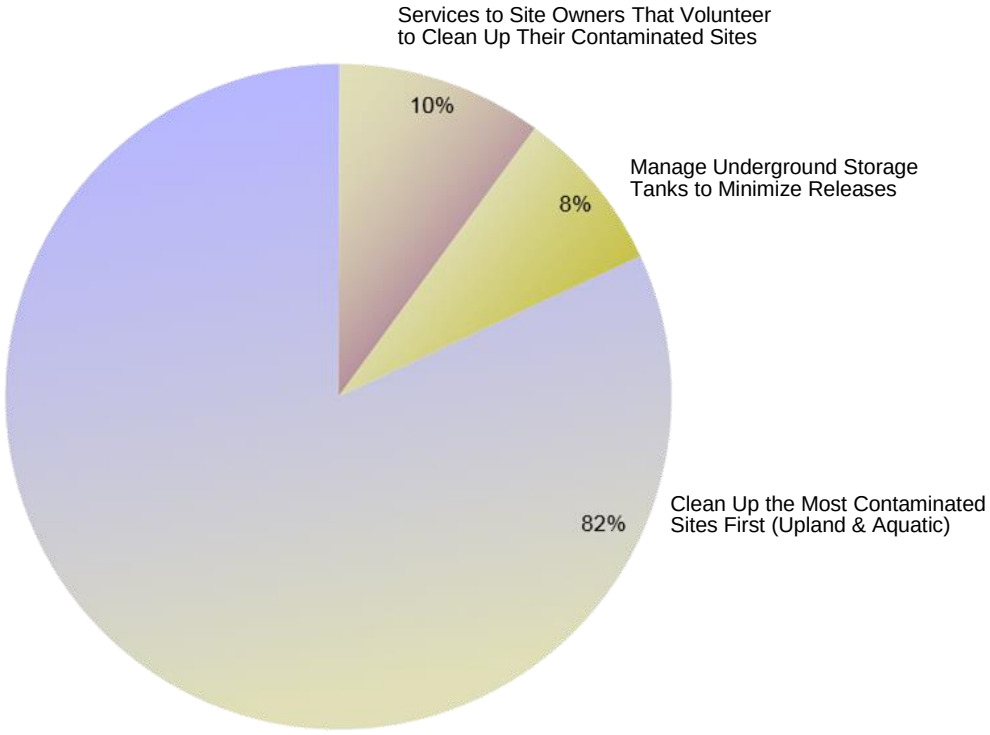
Expected Results
- Underground storage tanks are properly installed, monitored, or decommissioned to minimize the release of oil, gas, and other toxic materials into drinking water and other underground water sources.
- Decreased number of reported releases from underground storage tanks over time.
- 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 2017-19 Biennium Budget
By Activities
Operating Budget = $55.9 Million; FTEs = 191.7

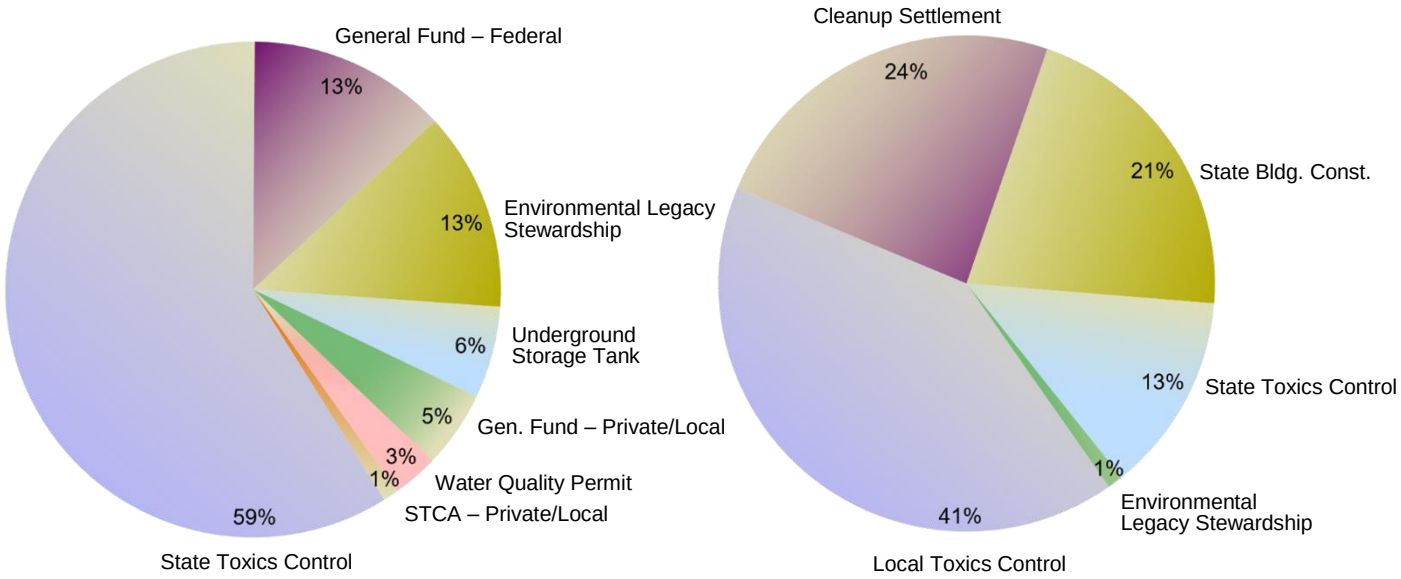


Activities	Amount	%	FTEs
Clean Up the Most Contaminated Sites First (Upland & Aquatic) (A005)	$45,981,347	82%	140.9
Services to Site Owners that Volunteer to Clean Up Their Contaminated Sites (A057)	5,663,182	10%	27.2
Manage Underground Storage Tanks to Minimize Releases (A023)	4,300,198	8%	23.6
Toxics Cleanup Operating Budget Total	**$55,944,727**	**100%**	**191.7**

Toxics Cleanup Program 2017-19 Biennium Budget By Fund Source

Operating Budget = $55.9 Million **Capital Budget = $173.1 Million**

FTEs = 191.7



Operating Fund Sources	Amount	%	Uses
State Toxics Control (173)	$32,915,338	59%	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)	7,558,350	13%	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.
Environmental Legacy Stewardship (19G)	7,310,812	13%	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.
Underground Storage Tank (182)	3,237,171	6%	Pollution prevention, inspection, and permitting activities related to underground storage tanks.

General Fund – Private/Local (001)	3,003,740	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)	1,420,316	3%	Review NPDES permits to ensure discharges are not contaminating sediments above sediment management standards.
State Toxics Control – Private/Local (173)	499,000	1%	Activities related to the cleanup of leaking underground storage tanks.
Operating Budget Total	**$55,944,727**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
Local Toxics Control (174)	$71,285,373	41%	Remedial Action Grant Program funding local government grants. Administration of the Remedial Action Grants, which provides fiscal oversight of the program.
Cleanup Settlement (15H)	41,759,797	24%	Continued remediation activities for the Asarco Tacoma smelter plume, Everett smelter site, and mine sites.
State Building Construction (057)	35,498,290	21%	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.
State Toxics Control (173)	22,041,835	13%	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.
Environmental Legacy Stewardship (19G)	2,524,460	1%	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	**$173,109,755**	**100%**	
Toxics Cleanup Operating & Capital Budget Total	**$229,054,482**		

Pend Oreille's Household Hazardous Waste Facility. County household hazardous waste facilities accept toxic materials from the public that should not be disposed of in a landfill. Ecology's Waste 2 Resources Program provides grant funding and technical assistance to keep these facilities operating in compliance with state laws.

Program Mission

The mission of the Waste 2 Resources 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 solid waste management. State government provides regulations, permit approval, and technical assistance for safe waste handling, as well as planning guidance and financial assistance. The private sector provides waste and recycling services. They own and operate 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. This is reflected in the State Solid and Hazardous Waste Plan: Moving Washington Beyond Waste and Toxics. Preventing waste in the first place is the smartest, cheapest, and healthiest approach to waste management. But as Washington's population grows, so does the amount of waste it produces. The character of the waste stream has changed over time, along with the way we manage waste. There is increasing demand to recover and reuse materials, instead of disposing of them in landfills.

Local governments are required to have local solid and hazardous waste plans that address their needs for 20 years into the future. Solid waste facilities, waste and recycling collection and processing, waste prevention programs, and funding for those programs must be included in plans. Ecology must review and approve each plan. Local fund sources, such as tipping fees and grants that Ecology oversees, support implementing those plans and programs.

Consistent with state and federal laws, Ecology develops regulations and provides technical assistance to prevent improper disposal and handling of wastes. This includes landfill design and long-term monitoring to ensure contaminants do not reach the environment through groundwater, surface water, or discharges to the air. Ecology provides regulatory, hydrogeological, and engineering expertise to local jurisdictional health departments (JHDs), which are responsible for permitting and compliance of solid waste handling facilities within their boundaries. Ecology also provides technical assistance for other solid waste handling facilities, such as transfer stations, compost facilities, and household hazardous waste facilities.

New products continue to enter the waste stream, such as electronics and mercury lamps, that contain toxic materials or valuable resources that are better kept out of landfills. The need to reduce potential environmental threats from toxic components in electronic

products and mercury lamps led to two product stewardship or 'take-back' laws in Washington: E-Cycle Washington, for computers, monitors, and TVs; and LightRecycle Washington, for mercury-containing lights. A third law was passed in 2017 to create a program for solar panels.

Recycling reduces the need for raw materials, which conserves energy, reduces greenhouse gas emissions, and creates jobs. Recycling traditional commodities, such as aluminum cans and paper, is common in most urban areas, as is commingled curbside collection of these materials. But the increasing use of non-recyclable plastic packaging, falling volumes of valuable commodities like newspapers, challenges with recycling markets, and increasing contamination in recycling bins, shows that much work remains to maintain successful recycling programs.

Organic materials make up almost 30 percent of the waste generated in Washington. Despite increasing infrastructure to compost or otherwise reuse these materials, many organics—food waste, yard waste, compostable paper, and clean wood—are still disposed. Keeping organics out of landfills reduces greenhouse gas emissions by decreasing the production of methane, a potent greenhouse gas that is released during decomposition. Turning organics into compost, bioenergy, biofuels, and other products—instead of landfilling them—promotes economic vitality in growing industries, provides valuable soil amendments that provide nutrients to plants, holds moisture in soils, and can sequester carbon.

Biosolids, the end-result of the wastewater treatment process, are a valuable resource. They contain important nutrients for plant growth and soil fertility, improve soil structure and moisture-holding capacity, and they can substitute for chemical fertilizers. Ecology oversees the state's biosolids program. We develop standards and permit wastewater treatment plants, biosolids 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 impact 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 90.48 RCW, Water Pollution Control Act*
- *Chapter 90.52 RCW, Pollution Disclosure Act*

Constituents/Interested Parties

- *Federal, state, and local governments.*
- *Environmental organizations.*
- *Businesses.*
- *Citizens.*
- *Solid waste and recycling companies.*

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 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 implementing the 2015 plan update. Goals of the plan include reducing waste and toxics, addressing issues of concern, and continuing to improve current waste management practices. Areas of focus for the program include sustainable financing, reducing wasted food, improving recycling, and environmentally preferred purchasing.

Local Solid Waste Financial Assistance Grants for Local Governments

Formerly called Coordinated Prevention Grants, 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 plans are required under Chapter 70.95 RCW, Solid Waste Management – Reduction and Recycling, and Chapter 70.105 RCW, Hazardous Waste Management. These plans help protect human health and the environment through properly managing and disposing of solid and hazardous waste. Grant projects fund regulation of local solid waste facilities, reduce human exposure to toxics by providing safe collection of household hazardous wastes, and support resource conservation through recycling and reuse programs.

The availability and amount of Local Solid Waste Financial Assistance (LSWFA) funding depends on legislative appropriations. For the 2015-17 Biennium, Ecology requested $29.6 million, but was only appropriated $15 million. This reduction significantly impacted local government recycling, composting, and solid waste enforcement activities. For the 2017-19 Biennium, Ecology requested $28.2 million. Only $10 million was appropriated in the state capital budget. The impacts to local governments include reduced or suspended services that could lead to:

- Increased illegal dumping.
- Improper disposal of hazardous waste from households.
- Increased waste generation.
- Decreased recycling.
- Decreased reuse/diversion.
- Lost jobs.

Given the statutory requirement for the state to provide this grant program to local governments for solid waste enforcement, recycling, and waste reduction work, Ecology will continue to work with local governments to ask the Legislature to restore full funding.

Waste Reduction, Recycling, and Litter Control Account Reductions for the 2017-19 Biennium

Since the economic recession that began in 2008, some funds from the Waste Reduction, Recycling, and Litter Control Account (WRRLCA) have been diverted away from Ecology for other purposes. The 2013 Legislature passed ESSB 5897, requiring $10 million of revenue from WRRLCA to be deposited in the State Parks Renewal and Stewardship Account in the 2013-15 and 2015-17 biennia. Despite the passage of ESHB 1060 in the 2015 session, which required funding be returned to Ecology beginning in the 2017-19 Biennium, the $10 million revenue diversion to State Parks was extended for another two years in the final 2017-19 Biennium budget. That means reductions or suspensions of program activities also continue.

Preventing and Cleaning Up Litter with Reduced Funding

The now three-biennia revenue diversion continues to cause a significant reduction in work we are able to do. Some key work will continue with the funds allocated, but none of these activities will be fully funded. In the 2017-19 Biennium, we will:

- Hire 300 Ecology Youth Corps and meet increased pay requirements for those in King County.
- Provide funding to 37 local government partners in the Community Litter Cleanup Program for litter pickup on county roads with tools and trucks for them to do this work.
- Provide funding to state agency partners for recycling and litter pickup through interagency agreements. We will not be able to give funds to the Department of Corrections unless an unsettled liability issue for work crews is resolved. We will continue to provide funds to the departments of Natural Resources, Fish and Wildlife, Transportation, and, potentially, the Washington State Patrol.

Other litter-related activities are still suspended due to reduced funding. Some of this work has been on hold since the 2009-11 Biennium, when diversions of the WRRLCA account first started:

- Ecology's litter prevention campaign and the litter survey continue to be suspended. Surveys had shown a 25-percent reduction in litter because of the prevention campaign.
- The litter hotline where citizens could report observed littering is no longer in service, resulting in less education and outreach to the public.
- Washington State Patrol's emphasis on secured load requirements is suspended. This has resulted in loss of immediate feedback to violators of the litter laws, and not getting motorists with dangerous unsecured loads off the state highways.
- We have not had sufficient funds to start the competitive grant program authorized by the Legislature in 2015. When funded, this grant program will provide grants to local governments and nongovernmental organizations for education on litter prevention and recycling.

Ecology continues to focus on the most problematic waste streams as noted in the following sections.

Managing Waste Prevention and Recycling Issues with Reduced Funding

Ecology works on many different issues that deal with waste prevention and recycling. Because of continued WRRLCA fund reductions, some specific activities are still suspended:

- The School Awards Program is suspended, resulting in fewer incentives for exceptional waste reduction and recycling efforts in schools.
- The hours of operation for the 1-800-RECYCLE Hotline remain below full-time operation.

We are prioritizing our technical assistance to support work on priority waste streams.

Organics Management

Organic materials, including yard debris and food scraps, make up a significant portion of the waste stream. To meet the state goal of recycling and reusing organic materials, some of these materials are being diverted from disposal to other management options. While there has been significant progress with these diversions, we do have concerns with some aspects of the management options.

In major population centers of Western Washington, there has been increased demand for composting options for residential yard debris and food scraps. Local governments and waste management companies have responded with increased collection and diversion programs. But, in addition to increased quantities of food and yard waste, there has also been an increase in non-compostable materials placed in collection bins, leading to contamination. The composting infrastructure is not always fully able to support the increased diversion, which has led to some odor problems and excess product supply.

To help address these issues, Ecology provides technical assistance to Jurisdictional Health Districts and compost facility owners and operators on how to improve organics management. Ecology also works with local governments in their planning processes, encouraging them to assess whether they have adequate infrastructure to manage organic materials before they implement collection programs.

Some local governments have looked at sending organics to Eastern Washington compost facilities to reduce burdens on the facilities in Western Washington. Also, there is a desire to make finished compost in Eastern Washington for agricultural uses. Concerns about spreading the apple maggot into pest-free areas of Central and Eastern Washington led to a new law in 2016 (ESSB 6055). This law requires all local solid waste management plan updates, requests for beneficial use exemptions, and permits for solid waste facilities be reviewed by the state Department of Agriculture to determine whether materials from apple maggot quarantine areas will be moving into pest-free areas.

A growing regional and national focus is being placed on reducing the amount of wasted food going for disposal. The first strategy is to improve source reduction of wasted food, including identifying what led to wasting food in the first place and to alter those practices. The second strategy is food 'rescue,' where still edible food is diverted to feed hungry people or animals. Ecology is working on this issue with local governments, other state agencies and institutions, and a collaboration of West Coast local, state, and provincial governments.

Recycling Materials from Construction

Construction and demolition (C&D) debris makes up about 37 percent of the waste stream. Reducing, reusing, and recycling this material not only keeps it out of landfills, it reduces greenhouse gas emissions and creates needed jobs and economic stimulation.

Ecology used to provide significant technical assistance on reducing and recycling materials related to the construction industry. This involved using less material in the construction process, reducing the use of toxic building materials, and recovering more materials through deconstructing, reusing, and recycling C&D debris. But, due to budget cuts and restrictions on using funding sources on "green building," we have had to stop the vast majority of this work.

Right now, Ecology focuses on ensuring C&D debris collected for recycling is sent to the appropriate facility and recycled, not disposed.

Curbside Recycling

Many communities now use commingled curbside recycling collection. While this

convenient, one-bin system makes residential participation simple, it can create problems with increased contamination of recyclables.

Recycling programs are set locally and vary by jurisdiction. This can create confusion for people who work in one community and live in another when accepted materials differ.

Ecology initially assembled stakeholders in the southwest region of the state to fully understand the problems of commingled recycling and propose solutions. The northwest region completed its own report on commingled recycling in 2016 and has been working on addressing the issues and recommendations from that report. These include messaging about proper recycling and assessing the materials accepted at the curb. Ecology is connecting the work done in the northwest region with appropriate opportunities for the rest of the state.

For many years, recycling facilities have relied on China as the end-market for a majority of recycled materials. China has recently enacted severe restrictions on the acceptance of many recyclables, in part due to the contamination in those materials. These restrictions are disrupting recycling programs across the state. This situation is expected to continue for the foreseeable future, because cleaning up our recycling stream and developing sufficient alternative markets are lengthy processes. Ecology is coordinating with stakeholders to navigate this new terrain.

Abandoned Recreational Vehicles

The 2017 Legislative Session included SB 5735, concerning the collection and disposal of abandoned RVs. The bill proposed that Ecology establish a program for voluntarily turning in unwanted recreational vehicles that have little to no value at end-of life and are expensive to dismantle. It was recognized there were too many unresolved issues with the bill, and it was not passed. Instead, a work group was created through a proviso in the transportation budget to develop and report on policy options to address this problem and produce draft legislation for the 2018 session. The Department of Licensing is leading the work group, which includes Ecology, Washington State Patrol, tow-truck operators, hulk haulers, local governments, and recyclers. The report and draft legislation are due in December 2017.

Revising the Solid Waste Handling Standards and other Rule Revisions

In 2013, Ecology started the revision process for Chapter 173-350 WAC, Solid Waste Handling Standards. Except for the compost section, this rule had not been updated since 2003. To begin this update, stakeholder groups were formed to work on different sections of the rule, and issues were discussed in detail. This pre-work led to draft rule language that was circulated for public review and comment in June of 2016. This included day-long workshops to walk stakeholders through major changes and answer questions. Comments were accepted into September 2016. A second draft of the rule that incorporated many stakeholder recommendations was released in December 2016, with additional comments accepted into February 2017. Ecology expects to make a formal rule proposal in December 2017, with public hearings in mid to late January 2018.

The Legislature included a proviso in Ecology's operating budget for the 2017-2019 Biennium requiring a report by September 2017 on the status of this rule revision. The report includes areas of consensus and dispute, proposed resolution of disputes, a list of engaged stakeholders, and a proposed timeline for potential rule adoption. We expect this rule revision to be completed spring 2018.

The Waste 2 Resources Program also manages 14 other rules that are evaluated each biennium to determine whether updates are needed. In addition to Chapter 173-350 WAC, Solid Waste Handling Standards, we are currently updating Chapter 173-331 WAC,

Vehicle Battery Recycling. Recent completed updates include:

- Chapter 173-312 WAC, Local Solid Waste Financial Assistance (previously Coordinated Prevention Grants) (adopted 09/8/17).
- Chapter 173-313 WAC, Local Solid Waste Enforcement Grants (repealed effective 10/9/17).
- Chapter 173-321 WAC, Public Participation Grants (June 2017).
- Chapter 173-910 WAC, Mercury-Containing Lights Product Stewardship Program (September 2016).
- Chapter 173-900 WAC, Electronic Products Recycling Program (March 2016).
- Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills (November 2015).

Local Governments' Increased Reliance on Ecology for Technical Assistance at Solid Waste Facilities

Ecology engineers, hydrogeologists, and facility specialists are funded through the Model Toxics Control Act (MTCA) accounts. 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.

Keeping Mercury out of the Environment by Recycling Mercury-Containing Lights

The product stewardship program for mercury-containing lights, known as LightRecycle Washington, has been operational since 2015. The program is run by PCA Product Stewardship, Inc. (PCA) and is keeping toxic mercury out of the environment. In 2016, the program collected and recycled 1,181,121 lights from 298 collection sites. In the first quarter of 2017, 281,083 lights were recycled.

The program is funded by an "environmental handling charge" (EHC) for each mercury-containing light sold at retail in or into Washington State. Early in 2017, PCA requested an increase in the EHC from 25 to 50 cents for each light. After a detailed review of materials submitted by PCA, Ecology approved the increase effective in July 2017. In November 2017, PCA requested an additional increase from 50 cents to 95 cents for each light, which was also granted, effective February 2018. The increases were needed because fewer compact fluorescent lights (CFLs) are being sold, due in part to the decreasing cost and increasing popularity of LED lights, which do not carry the surcharge. But, 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.

Recycling Electronics through E-Cycle Washington

E-Cycle Washington, the successful product stewardship program for computers, monitors, and TVs, now in its ninth year, has collected more than 350 million pounds of covered products. The amount of products collected through the program, as measured by weight, has decreased slightly in the past few years. This is due to two things. First, the backlog of old electronics in consumers' homes and garages has largely been collected and is now decreasing. Second, the flat screen TVs and monitors being dropped off today are significantly lighter than the older, bulky, cathode ray tube models.

The public routinely requests that 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.

Legislation has been introduced regarding the E-Cycle program for the past few years. The scope of legislation has concerned a variety of topics, including the Washington Materials Management Financing Authority (WMMFA) that oversees the program, curbside collection, annual reports, and disclosure of rates the WMMFA pays to service providers. Ecology will be working with stakeholders to gain a better understanding of issues and opportunities to address concerns without the need for new legislation.

In 2016, we learned that a processor participating in the program had shipped nonworking flat screen displays to Hong Kong for disposal. Ensuring recycling standards that protect human health and the environment are followed is a high priority. The company was fined $440,000 for not sending hazardous waste to a permitted facility and was required to discontinue shipments.

Recycling Photovoltaic Modules

In 2017, the Legislature passed ESSB 5939, establishing a new producer responsibility requirement to recycle photovoltaic modules (solar panels). Most of ESSB 5939 concerned incentives for solar energy, but one section created a producer-funded program for collecting and recycling solar modules at end of their life. Ecology is tasked with implementing a stakeholder process to develop guidance for this program, approving plans (plans are due January 2020), enforcement on manufacturers who fail to participate in the program (beginning January 2021), and reviewing annual reports (beginning April 2022). The process to develop guidance must be completed by the end of the 2017-19 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 the upland contamination from the former smelter. Millennium and Northwest Alloys completed a sediment cleanup in 2016.

The Lilyblad site is another important cleanup project we manage. Located in Tacoma's tide flats area, years of operation as a distributer and recycler of petroleum products and solvents led to soil and groundwater contamination. While the facility no longer handles solvents or dangerous waste, some of the contamination migrated offsite and threatened to reach nearby Commencement Bay. In 2009, Ecology installed an onsite treatment system using funds secured through a legal settlement and supplemented with MTCA appropriations. The treatment system captures solvents and petroleum in groundwater and remediates residual soil contamination. We expect the treatment system will operate through 2019. This project will help protect our significant public investments in the Commencement Bay cleanup by preventing water and sediments recontamination.

Activities, Results, and Performance Measures

Prevent and Pick Up Litter

Litter control efforts include Ecology Youth Corps litter pick up crews, Community Litter Cleanup contracts, and coordination with other state and local efforts to maximize litter pick up. Litter prevention and pickup helps to keep Washington green, supports tourism, and provides employment opportunities to youth.

Expected Results

- Litter is picked up and illegal dumps are cleaned up in coordination with local government and state agency partners.
- Youth are employed for litter pick up by the Ecology Youth Corps.

Performance Measures

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

Eliminate Waste and Promote Material Reuse

To eliminate waste whenever possible and use the remaining waste as resources, Ecology:

- Provides technical assistance to local governments for waste reduction and recycling programs.
- Works with industry to overcome barriers to construction and demolition material reuse and recycling.
- Develops regulations and provides technical assistance to promote reuse of organic materials and 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 for electronics and mercury-containing lights.

Expected Results

- Solid waste generation per capita decrease, saving businesses and people money and saving resources for future generations.
- The state sees an increase in the recovery and use of valuable materials that traditionally have entered the waste stream.
- Increased reuse and recycling of construction and demolition materials, organic matter, compost, and biosolids.
- Increased recycling of electronics and mercury-containing lights and less waste for disposal.

Performance Measures

- Pounds of solid waste disposed annually per person by Washington residents and businesses.
- Millions of tons of materials reused or recycled annually.
- Tons of electronics collected for recycling annually through the E-Cycle Washington program.
- 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.

Fund Local Efforts to Clean Up Toxic Sites and Manage or Reduce Waste

Local Solid Waste Financial Assistance (LSWFA) grants provide financial support to local governments implementing local solid and hazardous waste plans, enforcing solid waste laws and regulations, operating recycling and reuse programs, reducing hazardous substance use, collecting moderate risk waste collection (hazardous waste generated from households and small businesses), increasing reuse of organic materials, and decreasing the amount of building construction waste generated.

Public Participation Grants (PPG) provide funding for interest groups to inform residents of local cleanups and to inform the public about waste reduction efforts. Contaminated-site focused grants educate communities affected by contaminated site cleanups and allow residents to have a voice in cleanup investigation and remediation. Waste management grants educate Washington residents on reducing waste generation and use of toxics.

Expected Results

- LSWFA grant projects help ensure that over 800 solid waste facilities statewide comply with regulatory standards.
- Instances of illegal dumping are reduced.
- Groundwater is protected from toxins resulting from improperly disposed solid waste and toxics.
- Moderate-risk waste is collected and handled safely.
- Use of recycling and composting increases.
- Use of toxics and generation of waste declines.
- Successful PPG contaminated site projects help ensure cleanup investigations have support and input from affected residents.
- Successful PPG waste management projects inform participants on environmental issues, propose solutions, and begin a process of behavioral change.

Performance Measures

- Millions of tons of solid waste generated annually in Washington.
- Millions of tons of materials reused or recycled annually.
- Million pounds of household and small quantity generator hazardous wastes recycled or properly disposed.
- Tons of organic material recovered for composting and other uses.

Manage Solid Waste Safely

As the state moves toward reducing the amount and toxicity of waste, there are still wastes that need to be managed properly. Improper disposal practices of the past have resulted in today's cleanup sites. Ecology negotiates and implements cleanup orders under the Model Toxics Control Act (MTCA) at solid waste facilities. Local health jurisdictions are responsible for facility permitting and compliance. Ecology provides technical assistance, engineering and hydrogeology expertise, and oversight to local health departments to ensure that solid waste handling and disposal facilities are in compliance with environmental requirements.

Expected Results

- Disposed solid waste is managed in environmentally compliant facilities.
- Solid waste handling and disposal practices are carried out in a way that minimizes toxic contamination to the state's groundwater, surface water, and air.
- Technical assistance is provided to jurisdictional health departments to ensure facility compliance with environmental regulations.

Performance Measures

- Millions of tons of solid waste generated annually in Washington.
- Million pounds of household and small quantity generator hazardous wastes recycled or properly disposed.
- Percentage of regulated solid waste facilities completing annual reports in a calendar year.
- Percentage of landfills in compliance with applicable state regulations.

Improve Environmental Compliance at the State's Largest Industrial Facilities

Ecology provides a single point of contact for petroleum refineries, pulp and paper mills, and aluminum smelters. Rather than having multiple inspectors work on the many environmental issues at a facility, one engineer provides coverage for all media. This means

more balanced regulation for these major industries.

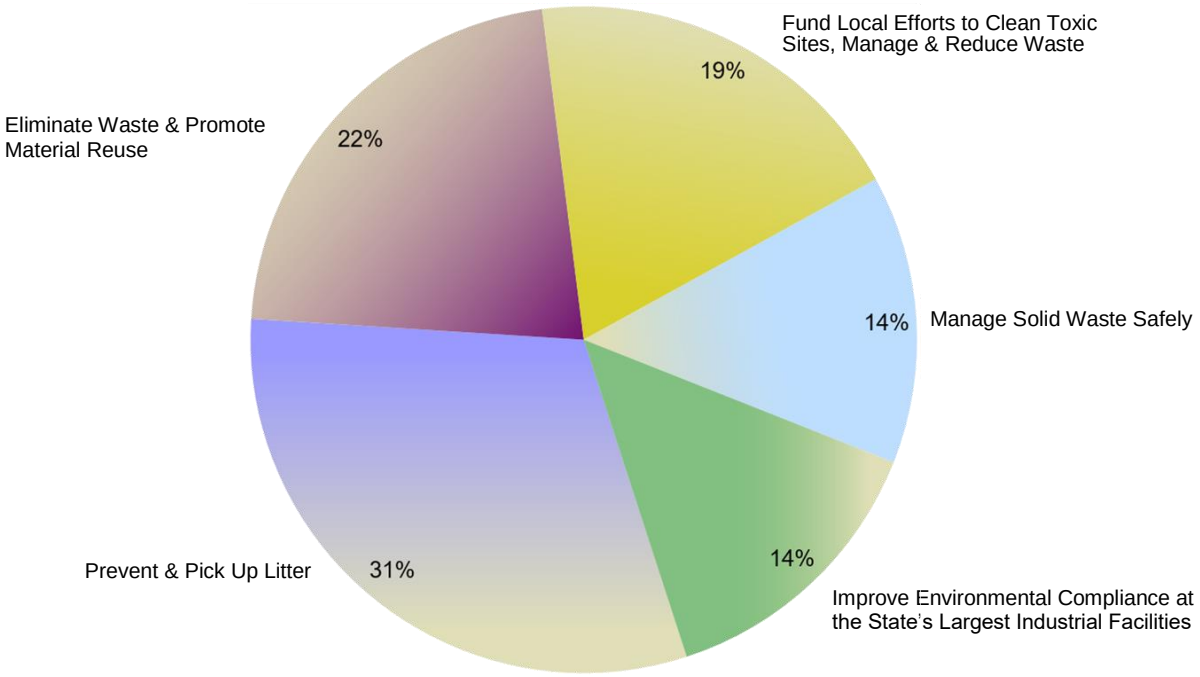
Expected Results

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

Performance Measure

- Percentage of industrial section permit actions that meet Ecology timeliness goals.

Waste 2 Resources Program 2017-19 Biennium Budget
By Activities
Operating Budget = $32.7 Million; FTEs = 112.4

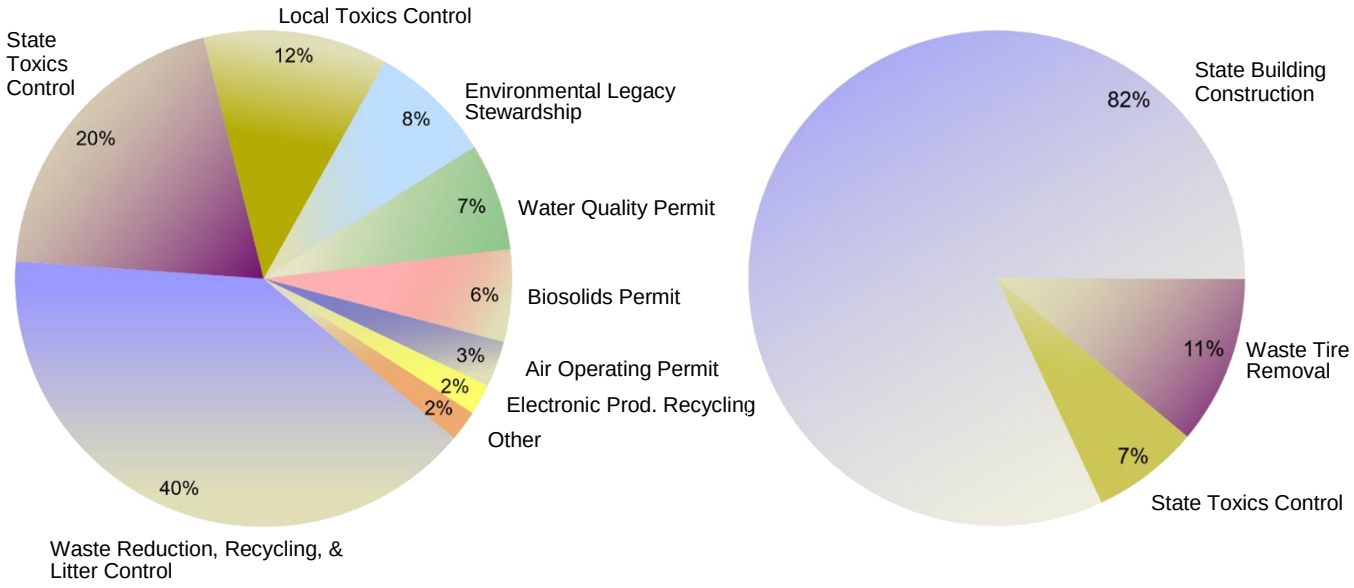


Activities	Amount	%	FTEs
Prevent & Pick Up Litter (A010)	10,097,023	31%	23.9
Eliminate Waste & Promote Material Reuse (A009)	7,033,132	22%	34.3
Fund Local Efforts to Clean Up Toxic Sites & Manage or Reduce Waste (A013)	6,121,176	19%	13.9
Manage Solid Waste Safely (A064)	4,781,907	14%	20.7
Improve Environmental Compliance at the State's Largest Industrial Facilities (A028)	4,675,065	14%	19.6
Waste 2 Resources Operating Budget Total	**$32,708,303**	**100%**	**112.4**

Waste 2 Resources Program 2017-19 Biennium Budget By Fund Source

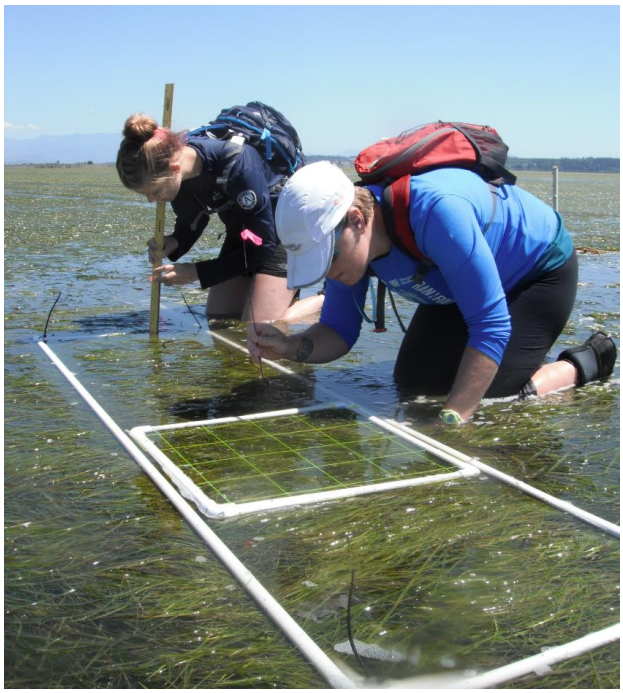
Operating Budget = $32.7 Million **Capital Budget = $12.1 Million**

FTEs = 112.4



Operating Fund Sources	Amount	%	Uses
Waste Reduction, Recycling, & Litter Control (044)	$12,988,432	40%	Support the Ecology Youth Corps, as well as other state agency efforts to clean up litter (50%); technical assistance in waste reduction and recycling (30%); litter grants to local governments (20%).
State Toxics Control (173)	6,568,478	20%	Provide engineering and hydrogeologic support to local health departments; regulatory compliance assistance; industrial dangerous waste and cleanup activities.
Local Toxics Control (174)	3,934,588	12%	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.
Environmental Legacy Stewardship (19G)	2,542,864	8%	Provide public participation grants to citizen groups and non-profit public interest organizations to facilitate public participation in the investigation and remediation of contaminated sites.
Water Quality Permit (176)	2,276,418	7%	Industrial water quality permitting, inspections, and sediment source control. Data management and public involvement related to water quality at regulated industries.
Biosolids Permit (199)	2,035,275	6%	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.

Air Operating Permit (219)	1,093,468	3%	Industrial air quality permitting, inspections, and enforcement of Title 5 permits.
Electronic Products Recycling (11J)	728,224	2%	Administer manufacturer registration fee collections, as well as monitor, evaluate, and implement the regulations adopted for the EPR program.
Other:			
Product Stewardship Programs (16T)	210,983	<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)	203,573	<1%	Water quality and biosolids permit enforcement actions. Disaster debris management.
Photovoltaic Module Recycling (22G)	76,000	<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.
Operating Budget Total	**$32,708,303**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
State Building Construction (057)	$10,000,000	82%	Provide grant funding to local governments for solid waste management programs and enforcement activities.
Waste Tire Removal (08R)	1,281,202	11%	Re-appropriation for statewide waste tire pile cleanup and prevention.
State Toxics Control (173)	836,795	7%	Re-appropriation for the Lilyblad site cleanup.
Capital Budget Total	**$12,117,997**	**100%**	
Waste 2 Resources Operating & Capital Budget Total	**$44,826,300**		



Ecology staff (from left) Christa Kohnert and Nicole Burnett monitoring the health and abundance of eelgrass habitats in Padilla Bay.

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.

Several sources contribute to poor water quality, and stormwater is chief among them. Stormwater is rain and snow melt 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. 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.

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

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

Issues

Point Source Water Pollution

Ecology regulates discharges of pollutants to surface and groundwaters 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.
- 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

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.
- Effectively manage new stormwater capital improvement grants for cities and counties.

- Continue to develop an ongoing, comprehensive, statewide stormwater financial assistance program for local governments.

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.

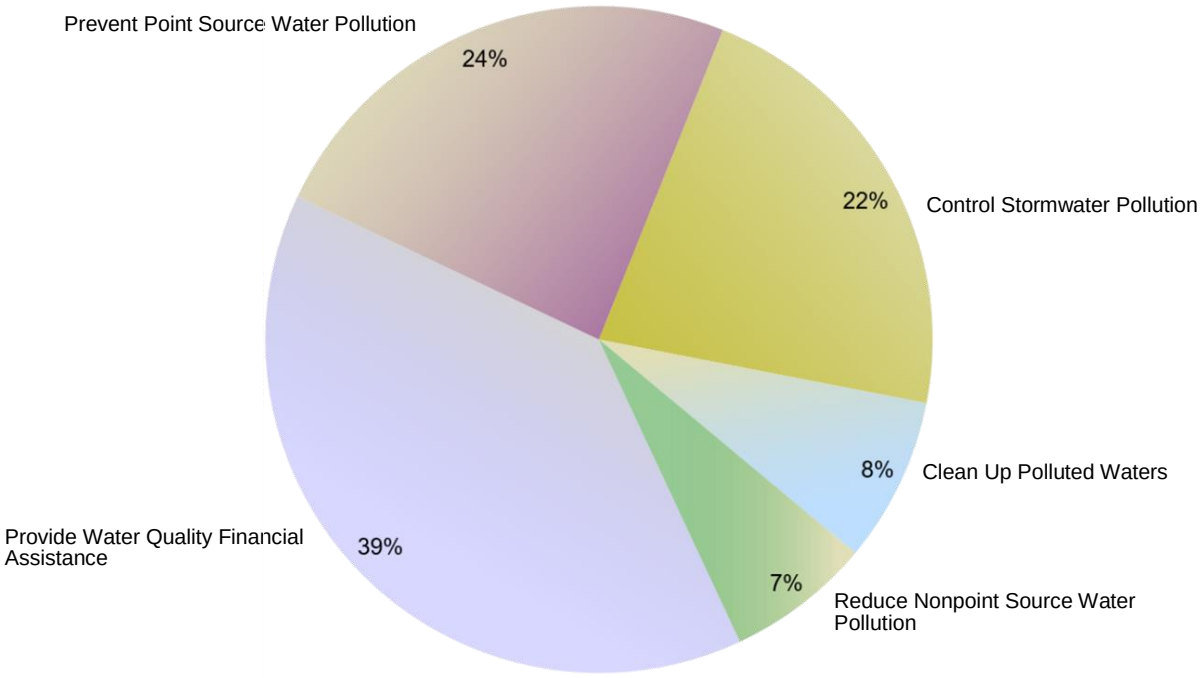
Expected Results

- 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 non-point 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 2017-19 Biennium Budget
By Activities
Operating Budget = $97.5 Million; FTEs = 257.0

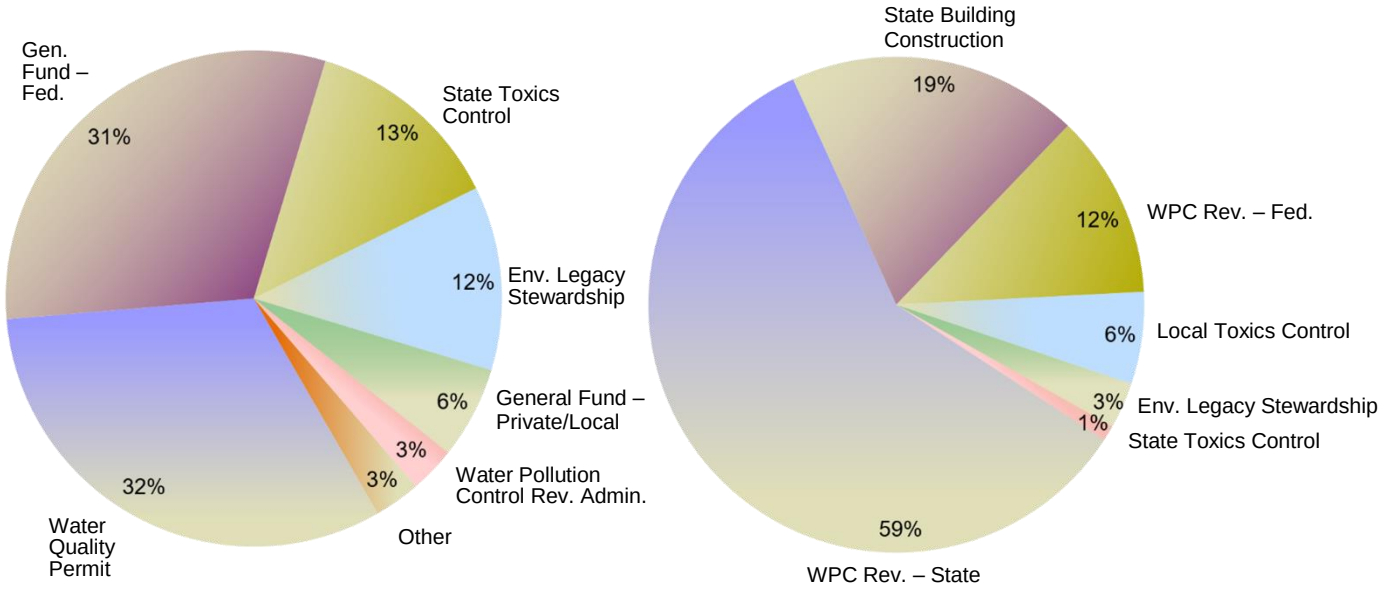


Activities	Amount	%	FTEs
Provide Water Quality Financial Assistance (A043)	$37,881,202	39%	48.8
Prevent Point Source Water Pollution (A032)	23,170,804	24%	88.4
Control Stormwater Pollution (A008)	21,112,775	22%	56.5
Clean Up Polluted Waters (A006)	8,304,826	8%	33.3
Reduce Nonpoint Source Water Pollution (A049)	7,030,986	7%	30.0
Water Quality Operating Budget Total	**$97,500,593**	**100%**	**257.0**

Water Quality Program 2017-19 Biennium Budget
By Fund Source

Operating Budget = $97.5 Million **Capital Budget = $417.9 Million**

FTEs = 257.0



Operating Fund Sources	Amount	%	Uses
Water Quality Permit (176)	$30,755,559	32%	Issue and manage federal and state wastewater/stormwater discharge permits.
General Fund – Federal (001)	29,993,270	31%	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.
State Toxics Control (173)	12,775,170	13%	Stormwater management; 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 is also utilized as state match needed to secure federal funding.
Environmental Legacy Stewardship (19G)	11,455,045	12%	Stormwater management; 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 management, and aquatic plant management. This includes $7.8M from the ELSA designated for stormwater capacity grants and stormwater grants of regional or statewide significance. Also, provides funding for Water Quality staff that work with local governments and other stakeholders to implement a municipal stormwater program and permitting system.

General Fund – Private/ Local (001)	6,094,825	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)	3,253,471	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.
Other:			
Reclamation (027)	1,185,412	<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)	1,165,016	<2%	Grants to local governments to prevent, remove, or manage invasive freshwater aquatic weeds.
Aquatic Algae Control (10A)	512,825	<1%	Grants to local governments to prevent, remove, or manage freshwater and saltwater aquatic blue-green algae.
General Fund – State (001)	310,000	<1%	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.
Operating Budget Total	**$97,500,593**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
Water Pollution Control Revolving – State (727)	$245,302,636	59%	State funds for loans for constructing or replacing water pollution control facilities, nonpoint source control activities, and estuary management.
State Building Construction (057)	80,863,581	19%	New appropriations and re-appropriations for the Centennial Clean Water Program provide grants for water pollution control facilities and nonpoint source control. New appropriations provide grants for the Stormwater Financial Assistance Program.
Water Pollution Control Revolving – Federal (727)	50,400,000	12%	Federal funds for loans for constructing or replacing water pollution control facilities, nonpoint source control activities, and estuary management.
Local Toxics Control (174)	24,561,908	6%	Grants for statewide stormwater projects to local governments for plan, design, and construct stormwater retrofit or low-impact development projects.
Environmental Legacy Stewardship (19G)	14,143,915	3%	Funding for long-term competitive stormwater projects (statewide).
State Toxics Control (173)	2,614,124	1%	Re-appropriations for the Centennial Clean Water Program provide grants for water pollution control facilities and nonpoint source control.
Capital Budget Total	**$417,886,164**	**100%**	
Water Quality Operating & Capital Budget Total	**$515,386,757**		

Ecology's dam safety engineer, Jintae Lee, inspects the Lacamas dam in Clark County.

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)*
- *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)*
- *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)*

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 for better of water supply management. The current pending application backlog is 5,134 applications (as of June 2018), which is down from 7,018 applications in 2011. In the two-year period from July 1, 2016 to June, 6, 2018, Ecology made 1,004 water right decisions.

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

Engrossed Substitute Senate Bill 6091

The 2018 Washington State Legislature passed Engrossed Substitute Senate Bill (ESSB) 6091, 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 payment of 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. ESSB 6091 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 (WAC 173-518). 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.

Compliance in Priority Watersheds

The Legislature provided additional funding for water resource compliance activities in the priority watersheds identified in ESSB 6091for FY2019.

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 2017-19 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 government, tribal leaders, and stakeholders to determine the best and most cost-effective package of options that address both instream and out-of-stream needs.

Yakima Basin Integrated Plan

Since the 2013-15 Biennium, the Legislature has invested over 192 million to implement the Yakima River Basin Integrated Water Resource Management Plan (YBIP). Ecology will request additional funding in the 2019-21 Capital budget to continue YBIP. The YBIP 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 Yakima Integrated Plan also includes implementation of the Yakima River Basin Water Enhancement Project (YRBWEP) which is a water conservation program in the Yakima Basin (Phase II) of YRBWEP and is

complimentary to the YBIP. YBIP is considered to be Phase III of YRBWEP.

Office of Columbia River

Beginning in 2006, $200 million was provided to Ecology to implement Chapter 90.90 RCW. 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 now been depleted while the work in the Columbia Basin requires further investment and development of additional water supplies. Ecology anticipates seeking 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 2017, the Office of Columbia River had secured approximately 410,000 acre-feet of additional water supply for instream and out-of-stream uses and with further investment, seeks to develop an additional 370,000 acre-feet over the next 5 years. To tackle future water management challenges, Ecology will follow the model of collaboration 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 several environmental harm. Drought is difficult to forecast, so it is critical to be prepared when it occurs. Preparation depends on having assurance that resources will be made available to support the citizens of the state. The lack of a stable drought contingency fund 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

Manage Water Rights

Ecology allocates surface and groundwater to meet the many needs for water. We do this by making decisions on applications for new water rights and by making decisions on applications for changes to existing water rights to reallocate water. Water right decisions require consideration of many factors, including determining whether water is available and whether existing rights would be impaired. Ecology is responsible for managing an existing water rights portfolio of over 51,000 certificates, 7,000 permits, 5,200 applications, and 166,000 claims.

Expected Results

- Improved allocation of new water rights and changes to existing rights through sound and timely permit decision making.
- New municipal water right provisions are implemented with the Department of Health.
- Water needs are met, and existing water users and the environment are protected.
- Timely and sound decisions are made on applications for new water rights and changes to existing rights to reallocate water.

Performance Measure

- Number of water right decisions completed.

Provide Water Resources Data and Information

Collecting, managing, and sharing data and information is critical to modern water management. It is essential to local watershed groups, conservancy boards, businesses, local governments, nonprofit groups, the Legislature, other agencies, and the media. It supports daily Ecology operations, including making water allocation decisions; setting and achieving stream flows; identifying the location and characteristics of wells, dams, and water diversions; supporting compliance actions; metering; tracking progress; communicating with constituents; and serving other water resource functions.

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.

Implementing Integrated Solutions to Protect Instream Resources

Ecology staff seek to meet 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 adopt and implement watershed-specific instream flow rules that protect stream flows for fish and wildlife, recreation, and senior water rights.
- 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 that stream flows are adjusted to adapt to water supply conditions during the 50-year license period.

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.

Performance Measures
- Volume of water acquired for instream flow in acre feet.
- Number of local organizations that are provided technical assistance

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.

Promote Compliance with Water Laws

Ecology helps ensure that water users comply with the state's water laws so that other legal water users are not impaired; water use remains sustainable over the long term; and the environment is protected for the benefit of people and nature. Activities include water metering and reporting 80 percent of water use in 16 fish-critical basins, along with education, technical assistance, and strategic enforcement in egregious cases.

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 annual reports received from water users required to meter in 16 fish-critical basins.
- Number of formal enforcement actions (penalties, orders, and notices) taken to achieve compliance.

Regulate Well Construction

Ecology protects consumers, well drillers, and the environment by licensing and regulating well drillers, investigating complaints, approving variances from construction standards, and providing continuing education to well drillers. The work is accomplished in partnership with delegated counties. It delivers technical assistance to homeowners, well drillers, tribes, and local governments.

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.

Clarifying Water Rights

Ecology provides support for water rights adjudication. Adjudication is fundamental to sound water management by increasing certainty regarding the validity and extent of water rights and reducing water conflicts. It is a judicial determination of existing water rights and claims, including federal, tribal, and non-tribal claims.

Expected Results

- Increased water rights certainty and reduced conflict.
- Major uncertainty regarding the validity and extent of water rights in the Yakima Basin is removed.

Performance Measure

- Percentage of Water Right Change Notices filed timely with the Yakima County Superior Court.

Prepare and Respond to Drought

Ecology provides services to reduce the impact of droughts and to prepare for future droughts and climate change. When droughts are declared, services include providing water through emergency transfers, water right changes, and temporary wells. We also provide drought related information and financial assistance and coordinate drought response efforts. Emerging information on climate change is also monitored for future water supply implications.

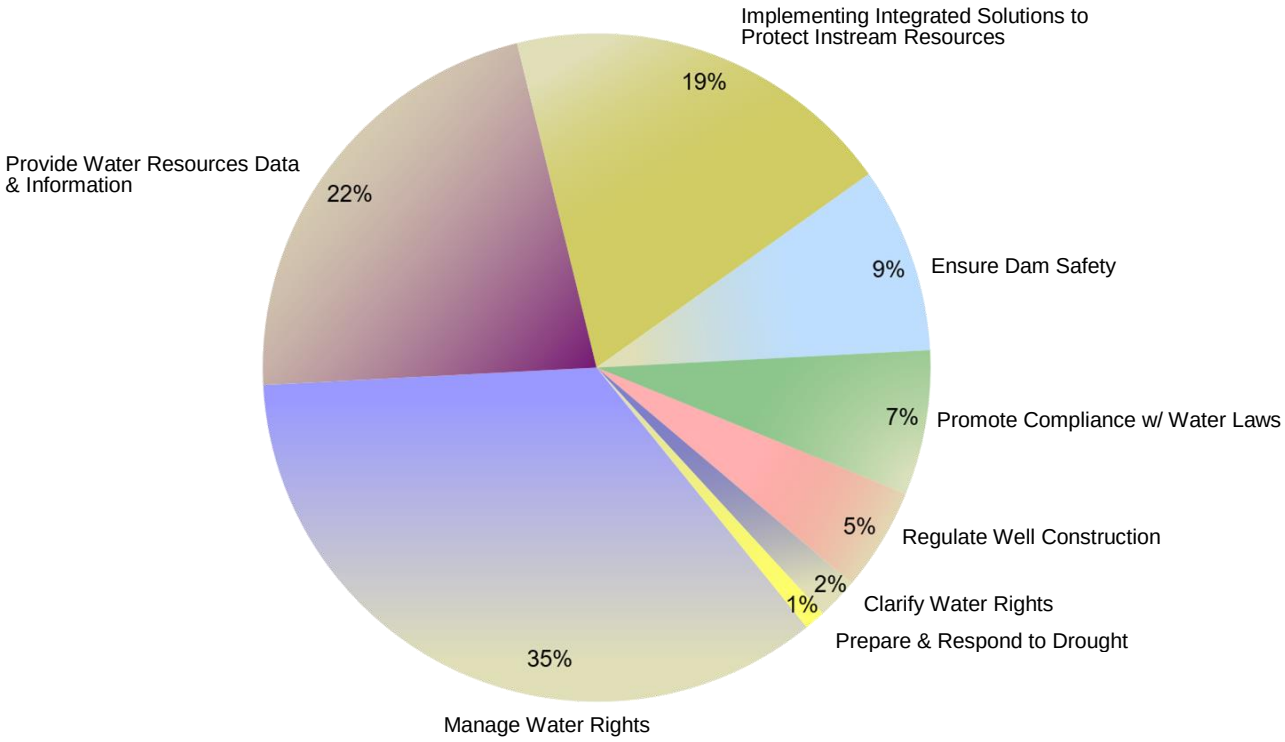
Expected Results

- Drought effects are monitored and, where feasible, mitigated (such as impacts to water supply and drought preparedness) through improved planning, communication, coordination, and loss prevention efforts.

Performance Measure

- There are no performance measures directly tied to this item.

Water Resources Program 2017-19 Biennium Budget
By Activities
Operating Budget = $41.5 Million; FTEs = 141.0

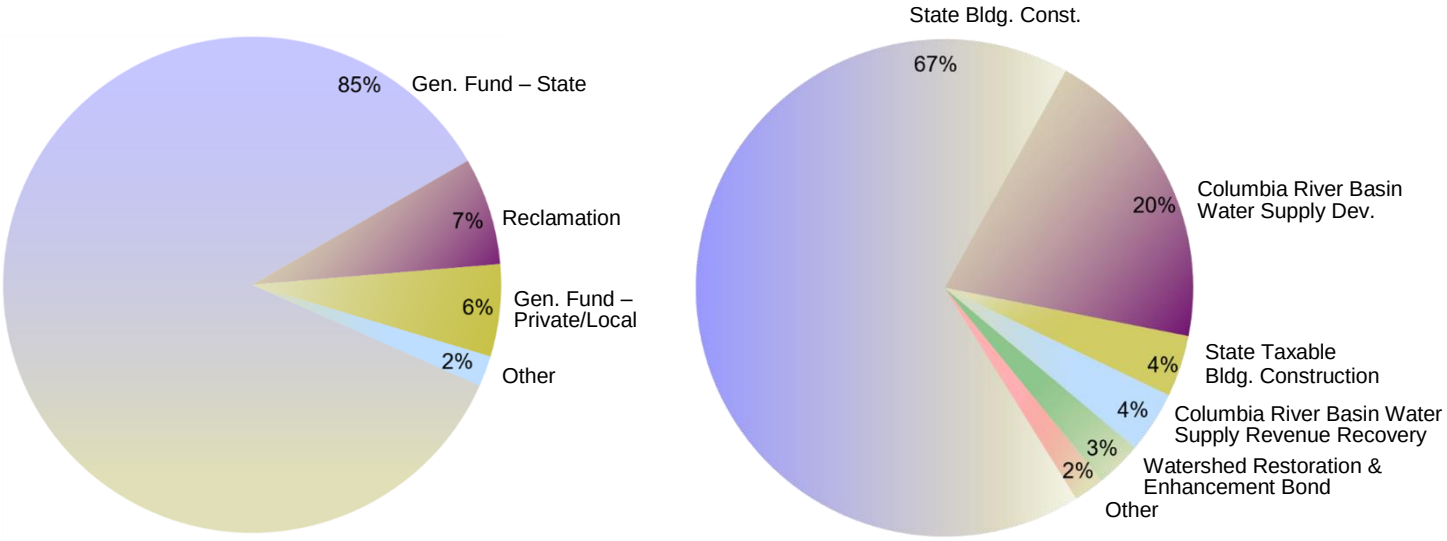


Activities	Amount	%	FTEs
Manage Water Rights (A024)	$14,517,319	35%	52.8
Provide Water Resources Data & Information (A044)	9,079,815	22%	32.6
Implementing Integrated Solutions to Protect Instream Resources (A003)	7,732,106	19%	20.0
Ensure Dam Safety (A011)	3,795,172	9%	13.5
Promote Compliance with Water Laws (A035)	3,119,642	7%	12.5
Regulate Well Construction (A053)	1,965,199	5%	6.8
Clarify Water Rights (A001)	1,014,585	2%	2.8
Prepare & Respond to Drought (A029)	244,000	1%	0.0
Water Resources Operating Budget Total	**$41,467,838**	**100%**	**141.0**

Water Resources Program 2017-19 Biennium Budget
By Fund Source

Operating Budget = $41.5 Million **Capital Budget = $114.5 Million**

FTEs = 141.0



Operating Fund Sources	Amount	%	Uses
General Fund – State (001)	$35,293,602	85%	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)	2,712,043	7%	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.
General Fund – Private/Local (001)	2,399,533	6%	Instream flow projects, water acquisition, and cost reimbursement contracts for water rights processing.
Other:			
General Fund – Federal (001)	423,216	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.
Basic Data (116)	170,000	<1%	Pass-through to the U.S. Geological Survey for stream gauging data collection and studies.

State & Local Improvements Revolving – Water Supply Facilities, Referendum 38 (072)	144,614	<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).
Water Rights Tracking System (10G)	41,830	<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	**$41,467,838**	**100%**	
Capital Fund Sources	**Amount**	**%**	**Uses**
State Building Construction (057)	$76,981,662	67%	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.
Columbia River Basin Water Supply Development (10P)	22,441,650	20%	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.
State Taxable Building Construction (355)	4,526,038	4%	Capital new appropriations to support grants and feasibility studies and construction of storage and water conservation projects, along with purchase or leases of water rights supporting implementation of the Yakima Integrated Plan.
Columbia River Basin Water Supply Revenue Recovery (296)	4,081,929	4%	Capital new appropriations to support grants and feasibility studies and construction of storage and water conservation projects, along with purchase or leases of water rights.
Watershed Restoration & Enhancement Bond (366)	3,442,898	3%	Capital new 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.
Other:			
State Drought Preparedness (05W)	1,696,040	1%	Capital new 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)	1,016,162	<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.
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	294,784	<1%	Grants and loans for agricultural water supply facilities. Grants for on-farm water use efficiency improvements, water conveyance improvements, and storage studies.
Capital Budget Total	**$114,481,163**	**100%**	
Water Resources Operating & Capital Budget Total	**$155,949,001**		

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Agency Administration Program

Baird Miller, Information Technology Services, 360-407-7048
Kelly Susewind, Administrative Services, 360-407-6829
Denise Clifford, Governmental Relations, 360-407-7003
Sandi Stewart, Human Resources, 360-407-6218
Erik Fairchild, Financial Services, 360-407-7005
Sandi Peck, Communications, 360-407-7004

Ecology's Communications team collaborates on a website project. From left: Dustin Terpening, Cally Whiteside, Barb MacGregor, Sandi Peck (Communications Director), Erin Danzer, and Marcus Humberg.

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 citizens 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, Facilities, and Regional Facilities sections provide expertise and services related to risk and emergency management, environmental performance, fleet, and facilities. Significant activities for the 2017-19 Biennium include:

- Ecology received funding in the 2017-19 Capital Budget to purchase property adjacent to our Eastern Regional Office in Spokane. This funding will allow Ecology to develop this site to include space for on-site stormwater treatment and indigenous landscape redevelopment, which will substantially reduce irrigation and improve site security.

- We are also planning to construct a future annex facility in Spokane. This annex facility will allow us to collocate spill response equipment and supplies adjacent to the regional office to greatly improve efficiency and program response time. It will also house laboratory and program storage spaces, which we don't have in the current facility.
- Our Northwest Regional Office in Bellevue is identified within the State's Six-Year Facility Plan to relocate by June 30, 2021. We will develop a predesign package for relocating this office, and consider collocation options as well as independent property leases.

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 effort is expected to improve government transparency, compliance with laws and rules, and organizational efficiency.

In the 2017-19 Biennium, Ecology is focusing on four major initiatives:

- Amending Chapter 173-03 WAC to modernize our public disclosure process and better reflect current law, technology, and processes.
- Conducting a pilot of the OpenText™ Enterprise Content Management solution in three or more business areas to better inform an agencywide procurement and implementation initiative in future biennia.
- 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 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 that Ecology's diversity reflects 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 revised 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 information accessibili9ty to the public.
- Providing technical solutions that support an increasingly collaborate 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 for Process Improvement

Ecology uses results from our biennial survey of permitted and inspected customers to identify opportunities for improvement. Improvement action plans identify metrics and track where actions respond to customer feedback. Customer feedback is helping us improve electronic submittal options, provide effective web-based information delivery, and identify opportunities for Lean process improvements.

Strategic Coordination

Ecology environmental programs' priorities align with Ecology goals and objectives, and our strategic priorities align with Results Washington. Strategic coordination is creating opportunities for innovation, especially as we build relationships, leverage expertise, and strengthen partnerships for multi-benefit projects. For example, a project may address flooding, and improve water quality, and provide habitat.

We are finding new ways to work across Ecology programs and partner with state agencies and other organizations to share knowledge and data and align processes. This improves consistency for our customers and helps us better communicate about the work we're doing. In particular, we have built partnerships that support projects for salmon recovery, habitat restoration, toxics cleanup, and clean water infrastructure.

Communications

The Communications 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 external communications to explain, educate, and engage diverse audiences through multiple channels—the web, social media, news media, and public events.

With more than five million visitors a year, 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.

We are in the process of building an entirely new website to make it easier than ever for visitors to quickly navigate to the information they need. The new website is focused on our customers, significantly streamlined, easy to use, accessible to all, and mobile friendly. We plan to launch in late 2017.

We also share environmental stories and news on our Twitter, Facebook, Flickr, Instagram, and blog channels. These tools allow us to provide timely, accurate, and compelling information and photos of 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

Nearly 70 percent of Ecology's total budget is passed through to local partners for work in local communities throughout the state. Ecology has over 50 different dedicated fund sources supporting our work, and we collect a wide variety of revenue that supports several of these funds. 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.

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. During the Great Recession, approximately $64 million in work traditionally supported by the State General Fund (GF-S) was shifted to MTCA funds. We are pursuing a switch-back of these dollars to re-establish MTCA capacity for toxic site cleanup, prevention, and management work and to reduce pressure on the State Building Construction Account (SBCA).

Ecology needs to update many of our data systems that support our financial management work and prepare the agency to migrate to the One Washington enterprise financial system currently being developed. Getting adequate resources for these mission critical information technology systems is a high priority, and we are coordinating with the Office of Financial Management (OFM) and the Office of the Chief Information Officer to address these needs.

Ecology is also working to address our facility needs throughout the state. The headquarters building in Lacey is approximately 25 years old and needs normal maintenance and repair (e.g., roof replacement and parking garage repairs). Our facility lease for our largest regional office (Northwest Regional Office) in Bellevue will expire soon, and we are working closely with OFM Facilities and others to secure long-term space. Finally, our Eastern Regional Office in Spokane is owned by the state and is also due for maintenance and a modest expansion to consolidate rented facilities to the regional office to be closer to our work force.

Activities, Results, and Performance Measures

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

The administration activity supports Ecology functions by providing leadership, cross 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 citizen 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

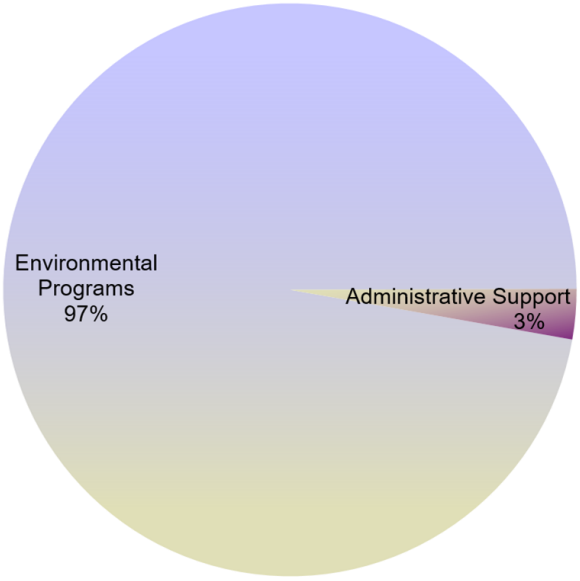
- Ecology managers, the governor, the State Auditor, the Office of Financial Management (OFM), and the Legislature have confidence in our financial information and can use it to make decisions affecting the environment.
- The public is educated about Ecology's work and role in environmental protection 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 citizen 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

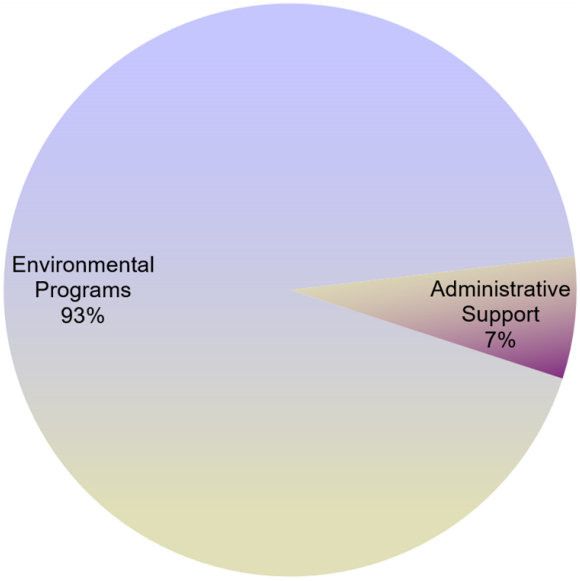
- Number of agency audit findings.
- Percentage of Ecology-administered dedicated accounts with a positive cash balance at the end of each quarter.
- The number of pages printed and copied per quarter.
- Percentage of employees who are accident-free.
- Percentage of Ecology's workforce who self-identify 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.

Administration Program
As a Percentage of Ecology's 2017-19 Biennium Budget

Operating & Capital Budget



Operating Budget Only



Environmental Programs:

Operating & Capital Budget = 97%

Operating Budget Only = 93%

- Water Quality
- Shorelands & Environmental Assistance
- Toxics Cleanup
- Water Resources
- Air Quality
- Hazardous Waste & Toxics Reduction
- Environmental Assessment
- Spill Prevention, Preparedness & Response
- Waste 2 Resources
- Nuclear Waste

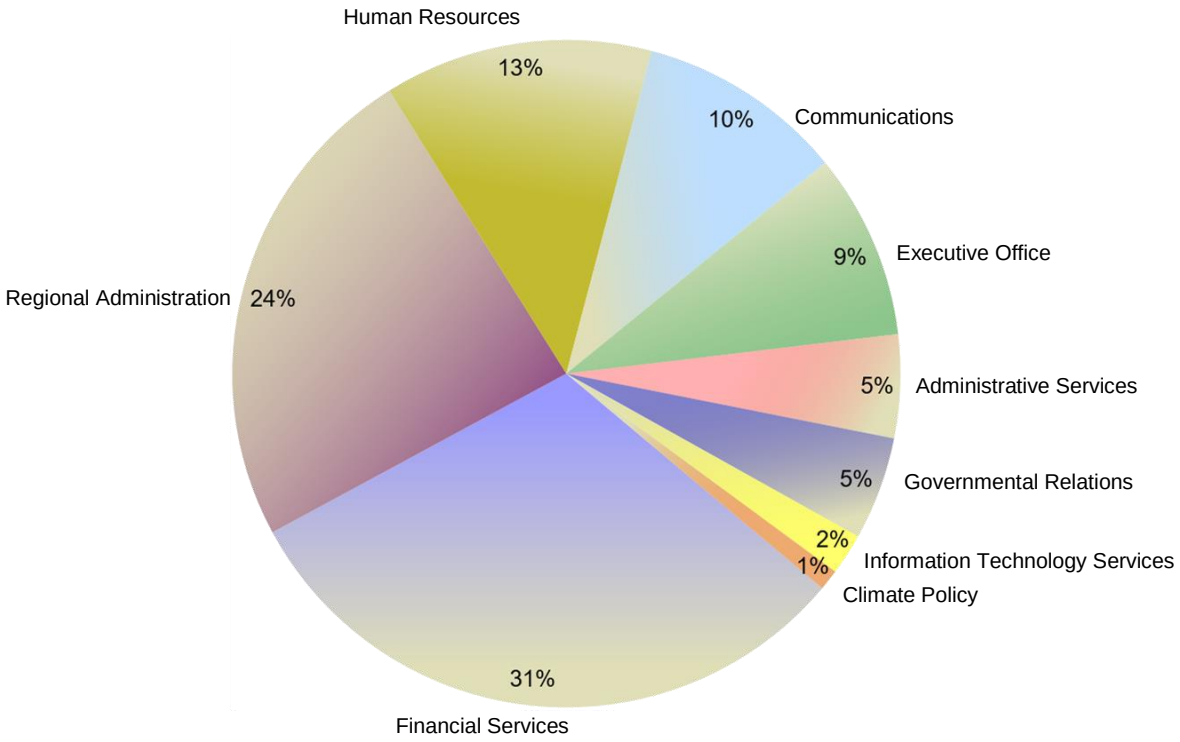
Program A:

Operating & Capital Budget = 3%

Operating Budget Only = 7%

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

Administration Program 2017-19 Biennium Operating Budget
By Activities
Operating Budget = $34.0 Million; FTEs = 155.8



Activities	Amount	%	FTEs
Financial Services	$10,395,121	31%	52.4
Regional Administration	8,201,076	24%	43.7
Human Resources	4,568,127	13%	20.2
Communications	3,345,974	10%	13.0
Executive Office	2,970,128	9%	8.3
Administrative Services	1,796,320	5%	8.3
Governmental Relations	1,727,767	5%	6.2
Information Technology Services	705,448	2%	2.7
Climate Policy	289,379	1%	1.0
Agency Administration Operating Budget Total	**$33,999,340**	**100%**	**155.8**

Administration[9] Program 2017-19 Biennium Budget By Fund Source

Operating Budget = $34.0 Million **Capital Budget = $3.9 Million**

FTEs = 155.8

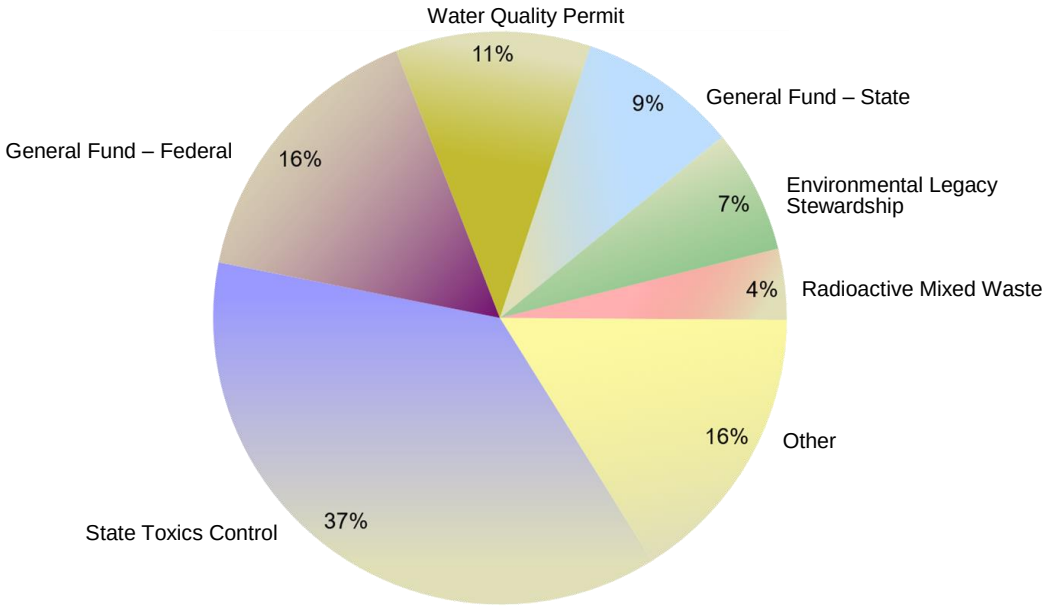
Operating Fund Sources	Amount	%
State Toxics Control (173)	$12,611,249	37%
General Fund – Federal (001)	5,397,325	16%
Water Quality Permit (176)	3,744,951	11%
General Fund – State (001)	3,097,454	9%
Environmental Legacy Stewardship (19G)	2,282,384	7%
Radioactive Mixed Waste (20R)	1,492,160	4%
Other:		
Waste Reduction, Recycling, & Litter Control (044)	747,568	2%
Oil Spill Prevention (217)	721,908	2%
Hazardous Waste Assistance (207)	668,349	2%
General Fund – Private/Local (001)	593,863	2%
Underground Storage Tank (182)	397,829	1%
Air Operating Permit (219)	391,628	1%
Water Pollution Control Revolving Administration (564)	347,529	1%
Air Pollution Control (216)	316,377	<1%
Local Toxics Control (174)	287,494	<1%
Reclamation (027)	208,545	<1%
Worker & Community Right-to-Know (163)	172,108	<1%
Biosolids Permit (199)	171,725	<1%
Flood Control Assistance (02P)	155,253	<1%
Electronic Products Recycling (11J)	59,776	<1%
Freshwater Aquatic Weeds (222)	45,208	<1%
Wood Stove Education & Enforcement (160)	32,909	<1%
Product Stewardship Programs (16T)	22,017	<1%
State & Local Improvements Revolving - Water Supply Facilities (Referendum 38) (072)	19,386	<1%
Aquatic Algae Control (10A)	9,175	<1%
Water Rights Tracking System (10G)	5,170	<1%
Operating Budget Total	**$33,999,340**	**100%**

[9] 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.

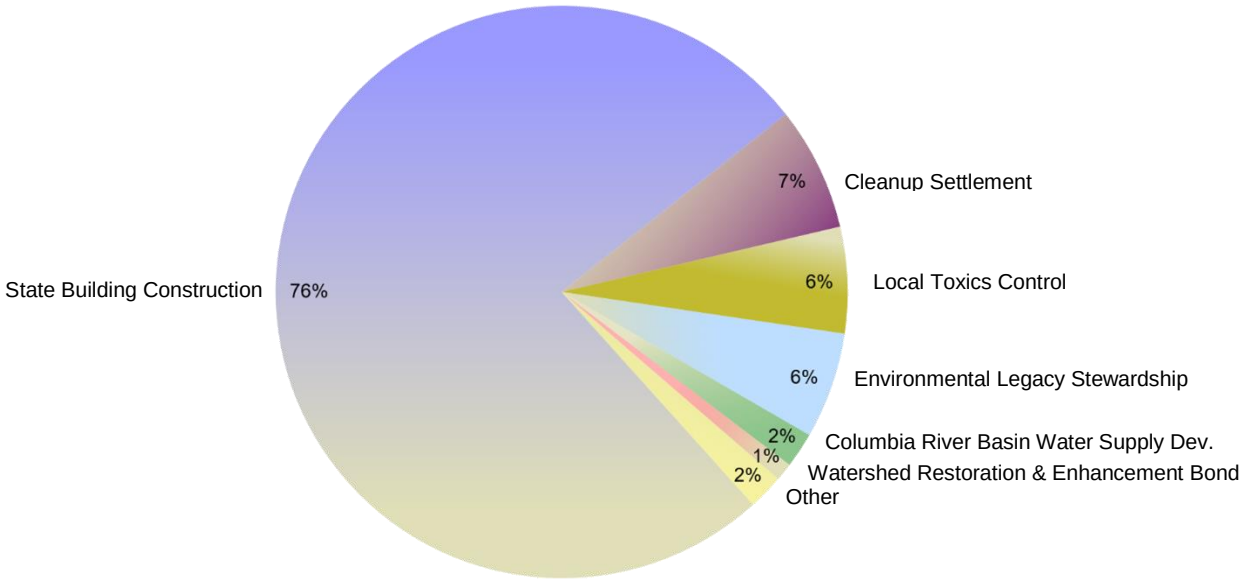
Capital Fund Sources[10]	Amount	%
State Building Construction (057)	$2,971,551	76%
Cleanup Settlement (15H)	270,562	7%
Local Toxics Control (174)	245,453	6%
Environmental Legacy Stewardship (19G)	235,502	6%
Columbia River Basin Water Supply Development (10P)	73,653	2%
Watershed Restoration & Enhancement Bond (366)	57,102	1%
Other:		<1%
Waste Tire Removal (08R)	19,034	<1%
General Fund – Federal (001)	12,924	<1%
State Toxics Control (173)	5,600	<1%
Capital Budget Total	**$3,891,381**	**100)**
Administration Program Operating & Capital Budget Total	**$37,890,721**	

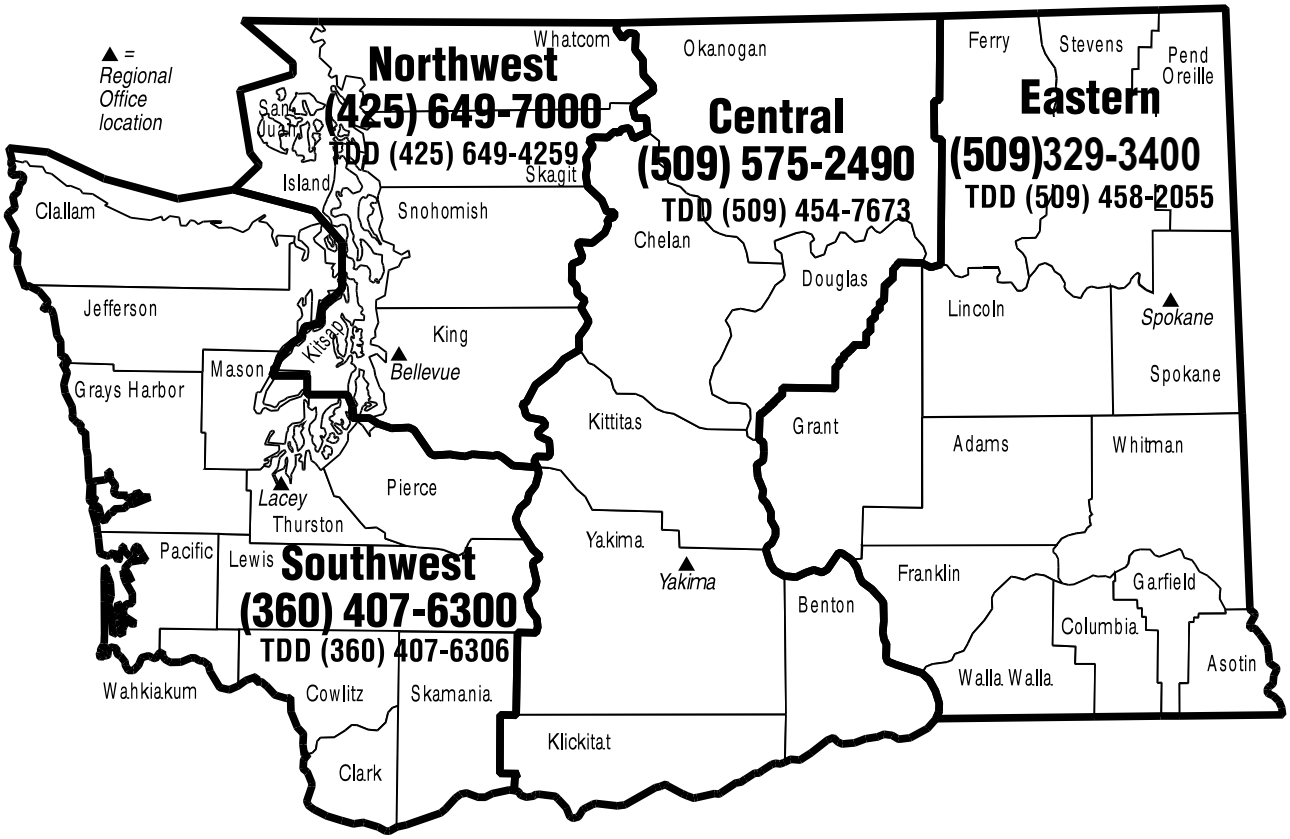
[10] Capital funds include indirect and facility capital projects for Lacey headquarters preservation ($635,000) and Eastern Regional Office improvements ($1,920,000).

Administration Program 2017-19 Biennium Budget
By Fund Source
Operating Budget = $34.0 Million



Capital Budget = $3.9 Million





Ecology Headquarters & Regional Offices

Headquarters

300 Desmond Drive SE
Lacey, WA
360-407-6000

PO Box 47600
Olympia, WA 98504-7600

Northwest Regional Office *(Counties: Island, King, Kitsap, San Juan, Skagit, Snohomish, and Whatcom)*

3190 160th Avenue SE
Bellevue, WA 98008-5452
425-649-7000

Central Regional Office *(Counties: Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, and Yakima)*

1250 West Alder Street
Union Gap, WA 98903-0009
509-575-2490

Southwest Regional Office *(Counties: Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, and Wahkiakum)*

300 Desmond Drive SE
Lacey, WA
360-407-6300

PO Box 47775
Olympia, WA 98504-7775

Eastern Regional Office *(Counties: Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman)*

N. 4601 Monroe Street, Suite 202
Spokane, WA 99205-1295
509-329-3400

Ecology Field Locations

Bellingham Field Office
913 Squalicum Parkway, Suite 101
Bellingham, WA 98225-2078
360-255-4400

Vancouver Field Office
12121 NE 99th Street, Suites 2100-2120,
Vancouver, WA 98682-2346
360-690-7171

Ecology Program Locations

Ecology Nuclear Waste Program, Richland Office
3100 Port of Benton Boulevard
Richland, WA 99354-1670
509-372-7950

Office of Columbia River[11]
1250 West Alder Street
Union Gap, WA 98903-0009
509-574-3989

Padilla Bay National Estuarine Research Reserve
Ecology Shorelands and Environmental Assistance Program
10441 Bayview-Edison Road
Mt. Vernon, WA 98273-9668
360-428-1558

Ecology Limited Purpose Locations

Staff available by appointment only in these offices.

Manchester Environmental Laboratory
7411 Beach Drive East
Port Orchard, WA 98366
360-871-8800

Laboratory Accreditation Office
Postal Mail: PO Box 488; Manchester, WA 98353-0488
Physical Location: 7411 Beach Drive East; Port Orchard, WA 98366
360-871-8840

Environmental Assessment Program Operations Center
Postal Mail: PO Box 47710; Olympia, WA 98504-7710
Physical Location: 8270 28th Court, NE; Lacey, WA 98516-7148
360-480-9224

Methow Valley Water-Master Office
134 Riverside Avenue, Suite E
Winthrop, WA 98862
509-996-8273

Walla Walla Water-Master Office
500 Tausick Way
Walla Walla, WA 99362-9270
509-329-3400

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

Ecology's Data – Where does it come from?

This publication relies on financial data for tables and graphs. Operating data is based on initial appropriations from the enacted 2017-19 Biennial Operating Budget. Capital data is based on agency allotments from the enacted 2017-19 Biennial Capital Budget and the first 2018 Supplemental Capital Budget in January 2018. The following identifies 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.

Capital

Capital funds by account and program are based on OFM approved allotments for the enacted 2017-19 Biennial Capital Budget and the first 2018 Supplemental Capital Budget in January 2018. 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.

Capital

Capital funds by account are based upon OFM approved allotments as of February 2018. It includes new appropriations and reappropriations. It does not include unallotted or reserve funds.

2017-19 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
NEP Watershed Grants EPA (GF-Federal)	Shorelands & Environmental Assistance	$8,404,276
WCC Crews Salaries	Shorelands & Environmental Assistance	8,074,198
Stormwater Grants (ELSA)	Water Quality	7,530,000
NEP Toxics and Nutrients Grants EPA (GF-Federal)	Water Quality	7,318,550
Nonpoint Source Grants EPA 319 (GF-Federal)	Water Quality	6,615,229
Core Grant to Local Air Authorities (GF-Federal & STCA)	Air Quality	6,172,571
Community Litter Cleanup Program (WRRLCA)	Waste 2 Resources	2,597,686
Public Participation Grants (ELSA)	Waste 2 Resources	2,272,000
EYC Crews Salaries	Waste 2 Resources	1,483,205
Shoreline Master Program Grants (ELSA)	Shorelands & Environmental Assistance	1,400,000
Environmental Restoration Projects (Coastal Protection)	Spill Prevention, Preparedness & Response	1,274,000
Freshwater Aquatic Weed Grants (Fr. Aquatic Weeds)	Water Quality	960,000
Oil Spill Response Equipment Caches (STCA)	Spill Prevention, Preparedness & Response	532,000
National Pollution Prevention Resource Center (NPPRC) (GF-Federal)	Hazardous Waste & Toxics Reduction	478,470
Marine Resource Council Grants (GF-State)	Shorelands & Environmental Assistance	455,000
Aquatic Algae Grants (Aquatic Algae Control)	Water Quality	400,000
PM 2.5 Grant to Local Air Authorities (GF-Federal)	Air Quality	326,450
Wood Stove Education & Enforcement Grants to Local Air Authorities (Wood Stove)	Air Quality	269,627
Lower Columbia Estuary Partnership (STCA)	Water Quality	264,000
DERA Clean Diesel Grant Program Grants to School Districts (GF-F & ELSA)	Air Quality	258,781
Flood Control Assistance Emergency Grants (FCAA)	Shorelands & Environmental Assistance	100,000
Total		**$57,186,043**

Ecology Administered Accounts

The Department of Ecology uses 59 accounts and is the administering agency for 52 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 January 2018, three new Ecology administered accounts were created as a result of new legislation ESSB 6091: 22K Watershed Restoration and Enhancement Account, 366 Watershed Restoration and Enhancement Bond Account, and 377 Watershed Restoration and Enhancement Taxable Bond Account.

In the 2015-17 Biennium, three new Ecology administered accounts were created as a result of legislation enacting environmental regulations: 21B Chehalis Basin Account, 21H Water Treatment Plant Operator Certification Account, and 22G Photovoltaic Module Recycling Account. Also, 746 Hanford Area Economic Investment Account has been added to the accounts Ecology uses, but does not administer.

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

173 – State Toxics Control

174 – Local Toxics Control

176 – Water Quality Permit

182 – Underground Storage Tank

18B – Columbia River Basin Taxable Bond Water Supply Development

199 – Biosolids Permit

19G – Environmental Legacy Stewardship

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

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

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

746 – Hanford Area Economic Investment

Ecology Administered Accounts/Alphabetical Order

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 reducing air pollution.

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). 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 Garret Ward, 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.

Ecology Administered Accounts/Alphabetical Order

Biosolids Permit Account (Fund #199) (RCW 79.95J.025)

Fund Manager: Waste 2 Resources 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: For administering permit applications, reviewing related plans and documents, monitoring, evaluating, conducting inspections, overseeing performance of delegated program elements, and providing 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 173-322 WAC.

Revenue Source: Money deposited voluntarily or 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).

Ecology Administered Accounts/Alphabetical Order

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

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

Purpose: To provide funding for the operation of the office of Chehalis Basin as well as for 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: From 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 caused by the release of hazardous substances.

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).

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.

Ecology Administered Accounts/Alphabetical Order

Columbia River Basin Taxable Bond Water Supply Development Account (Fund #18B) (Chapter 90.90 RCW)

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: 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. (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: 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. (This account retains interest.)

Ecology Administered Accounts/Alphabetical Order

Columbia River Basin Water Supply Revenue Recovery Account (Fund #296) (Chapter 90.90 RCW)

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.

Ecology Administered Accounts/Alphabetical Order

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: None. There has been no appropriation to date. After an initial appropriation, the remittances from loan recipients deposited into the account will fund future loans.

Electronic Products Recycling Account (Fund #11J) (RCW 70.95N.130)

Fund Manager: Waste 2 Resources 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: To administer manufacturer registration fee collections, review and approve plans and plan revisions, monitor, evaluate, and implement the regulations set for the Electronic Products Recycling 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 this 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 $44,519 in tier-1 (Final rates for calendar year 2018).

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Environmental Legacy Stewardship Account (Fund #19G) (RCW 70.105D)

Fund Manager: Water Quality Program. Contact Garret Ward, 360-407-7544

Purpose: To effect cleanup of contaminated sites in the state. However, many other toxic pollution and contamination issues also qualify for funding under the Model Toxics Control Act.

Authorized Use: Funding is used for clean up of contamination, and prevention and management of toxics which pose a threat to the environment in the state

Revenue Source: The Environmental Legacy Stewardship Account (ELSA) provides funds to Ecology and other state agencies having responsibility for cleaning up contaminated sites, improving hazardous waste management, and preventing future contamination. The Hazardous Substance Tax is the source of revenue for ELSA. This is a tax on hazardous substances at their first possession in the state of Washington. Currently, the majority of the revenue is generated from petroleum products and the remaining from pesticides, industrial chemicals, acids, and other hazardous substances. By statute 56 percent of the Hazardous Substance Tax is deposited in the State Toxics Control Account. The other 44 percent is deposited in the Local Toxics Control Account up to $140 million each Fiscal Year. Moneys above $140 million each Fiscal Year are deposited into ELSA.

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. For the 2013-15 and 2015-17 biennia, the enacted budget transfers $2 million back to the State General Fund.

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Freshwater Aquatic Weeds Account (Fund #222) (RCW 43.21A.650)

Fund Manager: Water Quality Program. Contact Garret Ward, 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 70.95E.030) Annual fee also charged to businesses required to prepare reduction plans under RCW 70.95C.200.

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Local Toxics Control Account (LTCA) (Fund #174) (RCW 70.105D.070)

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

Purpose: To provide grants or loans to local governments for remedial actions, stormwater pollution source projects, hazardous waste plans and programs, local solid waste planning, plan implementation and oversight of solid waste facilities, and cleanup of petroleum-based plastic or polystyrene foam debris in fresh or marine waters. The grant programs historically funded from the Local Toxics Control Account include: Remedial Action, Coordinated Prevention, Public Participation, Centennial Clean Water and Stormwater grants. Remedial Action Grants (RAG) are provided to clean up hazardous sites throughout Washington. RAG categories include oversight remedial action grants, independent remedial action grants, site hazard assessment grants, integrated planning grants, safe drinking water action grants, and area-wide groundwater remedial action grants.

Authorized Use: To fund the remedial action grant program, stormwater pollution source projects, coordinated prevention grant program, and the public participation grant program, and to provide technical assistance to local governments.

Revenue Source: Revenue for the Local Toxics Control Account comes from the hazardous substance tax (HST). This tax is applied to all hazardous substances including petroleum products, pesticides, industrial chemicals, and acids on the first possession in the state of Washington. Moneys collected from the HST are deposited 44 percent to the Local Toxics Control Account and 56 percent to the State Toxics Control Account, up to $140 million each Fiscal Year. Moneys above $140 million each Fiscal Year are deposited to the Environmental Legacy Stewardship Account.

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.

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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.

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: Waste 2 Resources 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 rule-making.

Revenue Source: A flat fee is required from participating manufacturers to recover costs associated with the plan guidance, review, and approval process, to be completed by January 2019. 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.

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Product Stewardship Programs Account (Fund #16T) (RCW 70.275.130)

Fund Manager: Waste 2 Resources 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 mercury-containing lights collection and recovery, 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 a fee of $3,000 per year.

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 three non-Hanford facilities.

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).

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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 (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.

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.

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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, and 2015. 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.

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.

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State Toxics Control Account (Fund #173) (RCW 70.105D.070)

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 to carry out the Model Toxics Control Act, including support for toxic cleanup, toxic pollution prevention, hazardous and solid waste management, and other water and environmental health monitoring programs.

Revenue Source: Revenue for the State Toxics Control Account comes from the hazardous substance tax (HST). This tax is applied to all hazardous substances including petroleum products, pesticides, industrial chemicals, and acids on the first possession in the state of Washington. Moneys collected from the HST are deposited 56 percent to the State Toxics Control Account and 44 percent to the Local Toxics Control Account, up to $140 million each Fiscal Year. Moneys above $140 million each Fiscal Year are deposited to the Environmental Legacy Stewardship Account. The STCA 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 and approval for the cleanup of contamination 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 or not there should be any further action taken. Ecology bills for this service. Other revenues include fines and penalties issued against persons or businesses which have not complied with environmental contamination and cleanup laws.

Underground Storage Tank Account (Fund #182) (RCW 90.76.100)

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

Purpose: To prevent underground storage tank contamination into soil and groundwater and mitigate explosive hazards.

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. The current fee is $166.99 per tank.

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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.

Waste Reduction, Recycling, and Litter Control Account (Fund #044) (RCW 70.93.180)

Fund Manager: Waste 2 Resources 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 (including composting) efforts, including: provide technical assistance to local governments for commercial business and residential recycling programs; educate citizens about waste and litter reduction and recycling programs; and to increase access to recycling programs especially for food packaging and plastic bags.

The Legislature diverted $10 million in revenue to the State Parks Renewal and Stewardship Account in the 2013-15, 2015-17, and 2017-19 biennia. Without this funding, Ecology will not be able to conduct a litter prevention campaign or a litter survey, or do as much litter pickup or implement as many waste reduction and recycling programs.

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.

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Waste Tire Removal Account (Fund #08R) (RCW 70.95.510, 70.95.521, 70.95.532)

Fund Manager: Waste 2 Resources 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.

Wastewater Treatment Plant Operator Certification (Fund #21H) (RCW 70.95B.095)

Fund Manager: Water Quality Program. Contact Garret Ward, 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 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 wastewater operator certification 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 $18-20 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.)

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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 Garret Ward, 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: $110-155,288 for industries; $1.72-$2.16 (per residential equivalent) for municipalities; and $83-$52,680 for general permits. Fees are reviewed each biennium by stakeholders. Ecology must go through formal rule-making to amend the fee. 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.

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Watershed Restoration and Enhancement Account (Fund #22K) (Title 90 RCW pending from 2018 legislation ESSB 6091.)

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.

Watershed Restoration and Enhancement Bond Account (Fund #366) (Title 90 RCW pending from 2018 legislation ESSB 6091.)

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.)

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Watershed Restoration and Enhancement Taxable Bond Account (Fund #377) (Title 90 RCW pending from 2018 legislation ESSB 6091.)

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.

Yakima Integrated Plan Implementation Account (Fund #19K) (Chapter 90.38 RCW)

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.)

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Yakima Integrated Plan Implementation Revenue Recovery Account (Fund #565) (Chapter 90.38 RCW)

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) (Chapter 90.38 RCW)

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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