DEPARTMENT OF ECOLOGY
State of Washington

Washington Department of Ecology

Budget & Program Overview

2011-2013

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Cover photo: Ecology's Noe'l Smith-Jackson (left) collecting confirmatory soil samples at a Hanford cleanup site with Toni Welch-Koelling, a sampling subcontractor for Washington Closure Hanford.

Washington Department of Ecology

Budget & Program Overview

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A Message from the Director

Welcome to the eighth edition of the Washington State Department of Ecology Budget and Program Overview book. This document provides information about the work we do and our budget for the 2011-13 biennium.

The Department of Ecology plays an important role in protecting Washington's quality of life in the 21st century. Balancing the needs of a growing population with the value Washingtonians place on natural resources is a big job in the best of times—and these are not the best of times. Washington is working its way out of the global recession, and we face ongoing, unresolved challenges to our natural resources.

The recession and continuing revenue shortfalls require state agencies, more than ever, to set clear priorities—picking the most important places to invest scarce public dollars to maintain the most critical services and assets for the public. We must set priorities and do what's most important first. The General Fund revenue shortfalls make it imperative for agencies to stretch every dollar, maximize our efficiency, and reform our operations.

At Ecology, we're setting priorities, making cuts in services and staff, and finding ways to be more efficient and effective. While I am optimistic about the future, and that a sustainable quality of life is something we can attain, I'm also realistic about the job ahead. Success is by no means assured, but failure is not an option.

It will take continued regulation and continued investment. More fundamentally, though, it will take willpower and collaboration. We have to come together, again and again, to find solutions that will protect Washington's natural resources and economy for our generation and those to come.

With these challenges comes great opportunity to make a real difference. We are strategically focused on the following areas:

- Protecting and Restoring Puget Sound
- Reducing Toxic Threats
- Supporting Successful Water Management
- Addressing Climate Change

In Washington, we have a rich tradition of finding broadly supported solutions where everyone wins—where the needs of communities and families, the economy and businesses, and of our natural ecosystems are met. If we as a state insist on this path, we will succeed in securing a healthy quality of life for the century ahead.

Sincerely,

Ted Sturdevant
Director

2011-13 Introduction – Agency Budget

The Department of Ecology––Working <u>with</u> you for a better Washington

Our Mission

The mission of the Department of Ecology is to protect, preserve, and enhance Washington's environment, and promote the wise management of our air, land, and water for the benefit of current and future generations.

Our Goals

- Prevent pollution.
- Clean up pollution.
- Support sustainable communities and natural resources.

Our Values

- Environmental stewardship.
- Environmental justice.
- Environmental education.
- Community spirit.
- Professional conduct and expertise.
- Accountability.
- Our employees.

Our Code of Conduct

- Treat our customers as partners and collaborators who are equally committed to a healthy, prosperous Washington.
- Perform our work in a helpful, friendly, and positive manner.
- Communicate clearly, accurately, and in a timely manner.
- Listen carefully and engage in open, respectful, and professional dialogue.
- Solve problems, consider different perspectives, and find new and creative ways to accomplish our work.
- Build and maintain cooperative relationships.
- Remain objective at all times and ensure that professional judgment, rather than personal opinion, influences our work.

This book provides an overview of Ecology's 2011-2013 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.

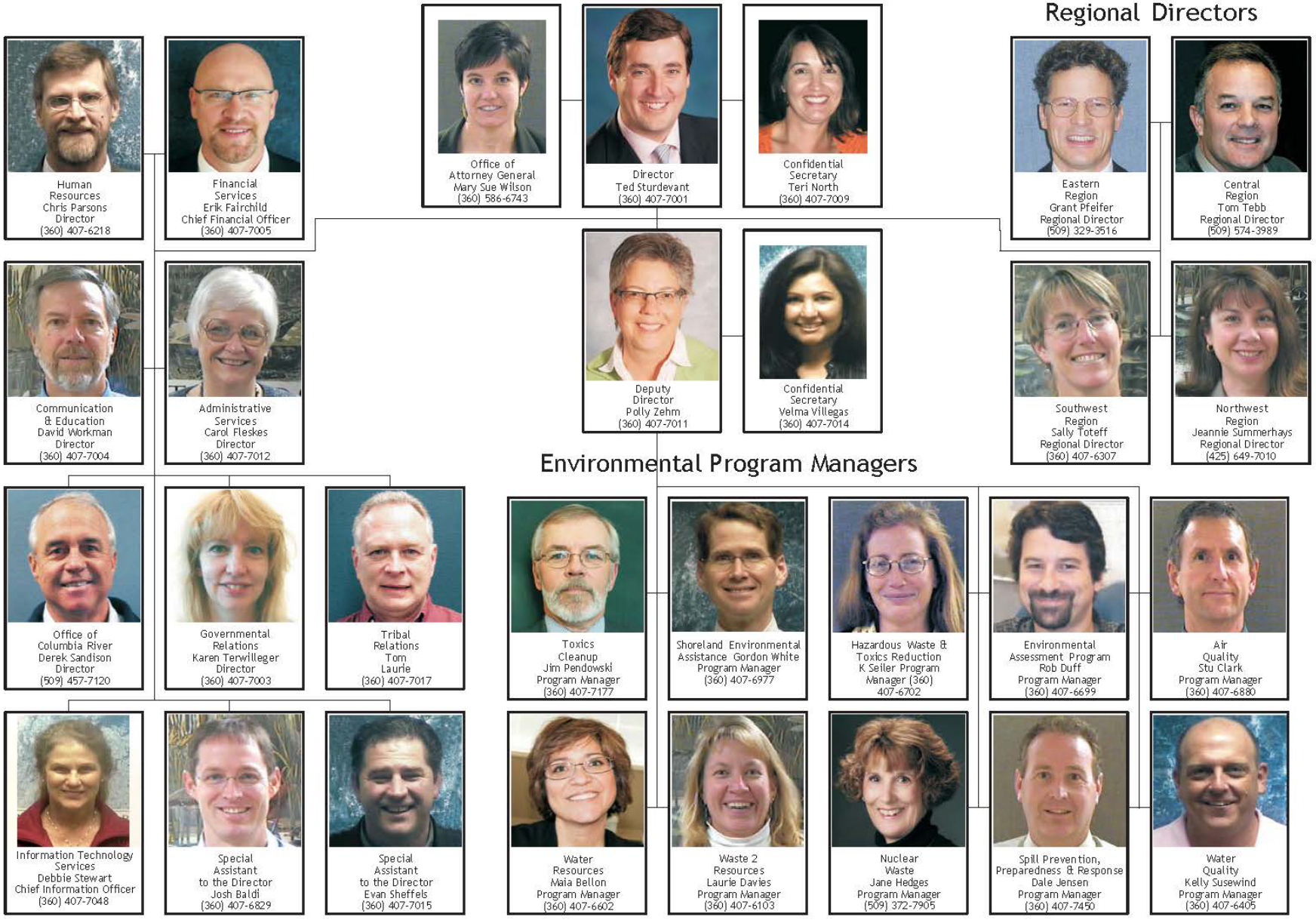
In 2011-13, Ecology's operating budget is $428.7 million, and our capital budget is $782.0 million (new and reappropriated dollars). When you combine the two, 68 percent of the total is money passed through to local governments and communities to do environmental work. The remainder supports Ecology activities, which are discussed in more detail in the program sections of this book.

Since the start of the 2007-09 biennium, Ecology's near General Fund-State (GF-S) has been reduced by $35.6 million, or nearly 27 percent. About 22 percent of our current base 2011-13 operating budget is supported by GF-S, with the remainder coming from dedicated environmental accounts and federal dollars. During this same period, over a quarter billion dollars ($255 million) in dedicated environmental funds managed by the agency have been transferred directly to the GF-S.

Each program's profile includes the context for its work and descriptions of the activities funded in the 2011-13 budget, including the intended results and how performance will be measured.

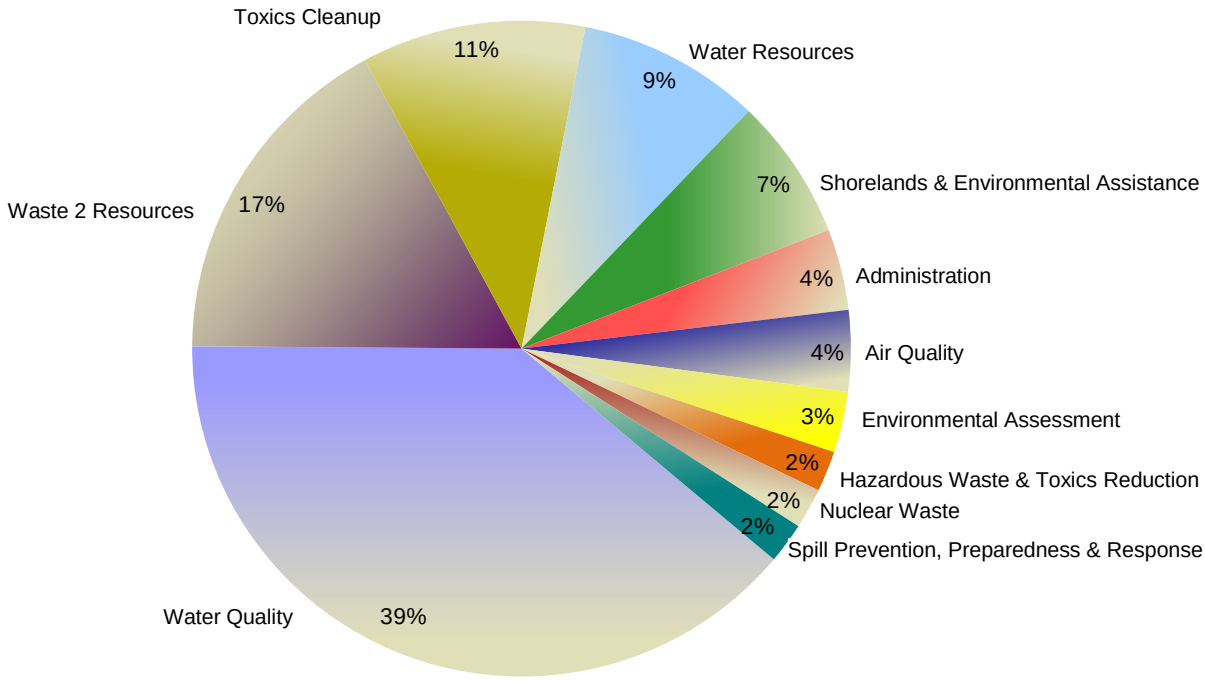
Throughout the book, pie charts and tables are used to show the source of funding and how it is allocated. Information about our accounts is in the back of the book.

Department of Ecology - Executive Management



Ecology 2011-13 Biennium Budget
By Program

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



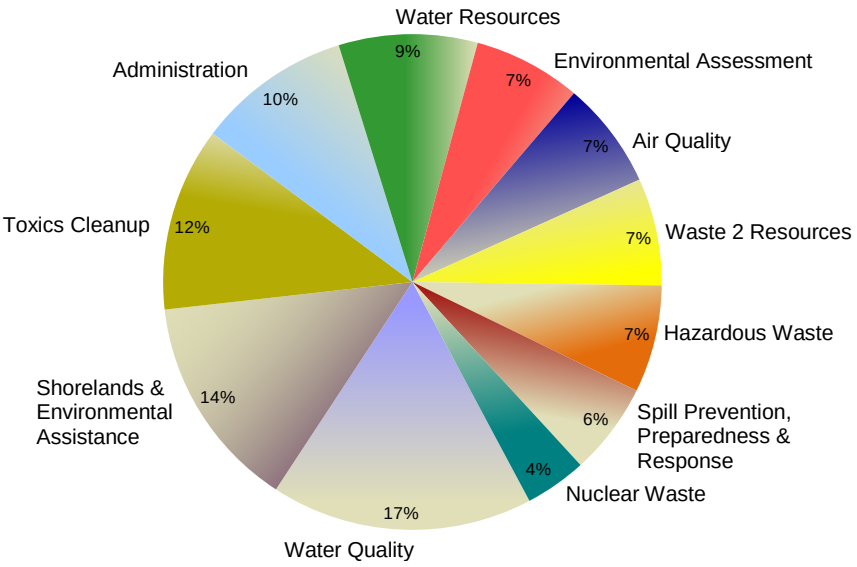
Programs	FTEs	Operating	Capital	Operating + Capital
Water Quality	246.6	$73,693,880	$396,482,455	$470,176,335
Waste 2 Resources	92.1	30,802,332	175,201,322	206,003,654
Toxics Cleanup	171.7	49,999,814	77,925,232	127,925,046
Water Resources	166.7	37,982,491	77,760,778	115,743,269
Shorelands & Environmental Assistance	161.0	56,781,531	28,770,197	85,551,728
Administration	213.0	44,405,015	1,406,686	45,811,701
Air Quality	106.7	31,010,695	11,821,155	42,831,850
Environmental Assessment	137.8	31,055,967	0	31,055,967
Hazardous Waste & Toxics Reduction	121.9	29,613,348	566,949	30,180,297
Nuclear Waste	74.7	17,309,361	12,052,000	29,361,361
Spill Prevention, Preparedness & Response	71.3	26,092,566	0	26,092,566
Total	**1,563.5**	**$428,747,000**	**$781,986,774**	**$1,210,733,774**

Ecology 2011-13 Biennium Operating Budget

Operating Budget = $428.7 Million

By Program

Programs	Operating
Water Quality	$73,693,880
Shorelands & Environmental Assistance	56,781,531
Toxics Cleanup	49,999,814
Administration*	44,405,015
Water Resources	37,982,491
Environmental Assessment	31,055,967
Air Quality	31,010,695
Waste 2 Resources	30,802,332
Hazardous Waste & Toxics Reduction	29,613,348
Spill Prevention, Preparedness & Response	26,092,566
Nuclear Waste	17,309,361
Total	**$428,747,000**



**Note: The Administration Program is funded by operating and capital budgets and is 4% of the total budget. See page 104 for more detail.*

By Fund Source

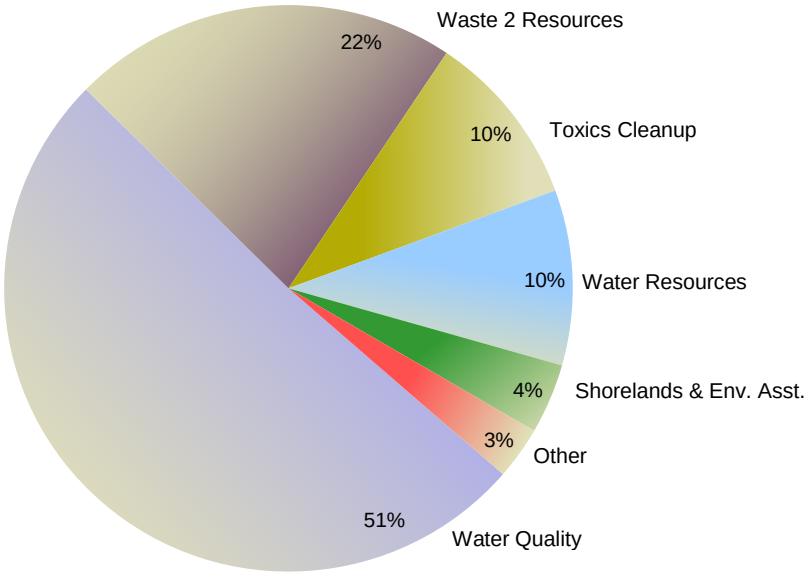
General Funds	Amount	%
General Fund – State (001)	$96,418,000	22.5
General Fund – Federal (001)	77,452,000	18.1
General Fund – Private/Local (001)	16,691,000	3.9
Dedicated Accounts	**Amount**	**%**
State Toxics Control (173)	$112,512,000	26.2
Water Quality Permit (176)	37,730,000	8.8
Local Toxics Control (174)	27,384,000	6.4
Waste Reduction, Recycling & Litter Control (044)	11,475,000	2.7
Oil Spill Response (223)	7,076,000	1.7
Hazardous Waste Assistance (207)	5,854,000	1.4
Oil Spill Prevention (217)	5,563,000	1.3
Reclamation Revolving (027)	3,642,000	0.8
Underground Storage Tank (182)	3,251,000	0.8
Air Operating Permit (219)	2,744,000	0.6
Water Pollution Control Revolving – Federal (727)	2,517,000	0.6
Air Pollution Control (216)	2,468,000	0.6
Product Stewardship Programs (16T)	2,216,000	0.5
Flood Control Assistance (02P)	1,940,000	0.5
Biosolids Permit (199)	1,805,000	0.4
Freshwater Aquatic Weeds (222)	1,700,000	0.4
Worker & Community Right to Know (163)	1,668,000	0.4
Coastal Protection (408)	1,556,000	0.4
State Toxics Control – Private/Local (173)	968,000	0.2
Electronic Products Recycling (11J)	711,000	0.2
Wood Stove Education & Enforcement (160)	612,000	0.1
Water Pollution Control Revolving – State (727)	611,000	0.1
Aquatic Algae Control (10A)	509,000	0.1
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	423,000	0.1
Site Closure (125)	354,000	0.1
Basic Data (116)	310,000	0.1
State Emergency Water Projects Revolving (032)	270,000	0.1
Water Rights Processing (16V)	136,000	<0.1
State Drought Preparedness (05W)	118,000	<0.1
Water Rights Tracking System (10G)	46,000	<0.1
Metals Mining (258)	14,000	<0.1
Special Grass Seed Burning Research (023)	3,000	<0.1
Total	**$428,747,000**	**100.0**

Ecology 2011-13 Biennium Capital Budget

Capital Budget = $782.0 Million

By Program

Programs	Capital
Water Quality	$396,482,455
Waste 2 Resources	175,201,322
Toxics Cleanup	77,925,232
Water Resources	77,760,778
Shorelands & Environmental Assistance	28,770,197
Nuclear Waste	12,052,000
Air Quality	11,821,155
Administration	1,406,686
Hazardous Waste & Toxics Reduction	566,949
Environmental Assessment	0
Spill Prevention, Preparedness & Response	0
Total	**$781,986,774**



Other = Nuclear Waste (1.54%), Air Quality (1.51%), Administration (0.18%), and Hazardous Waste (0.07%).

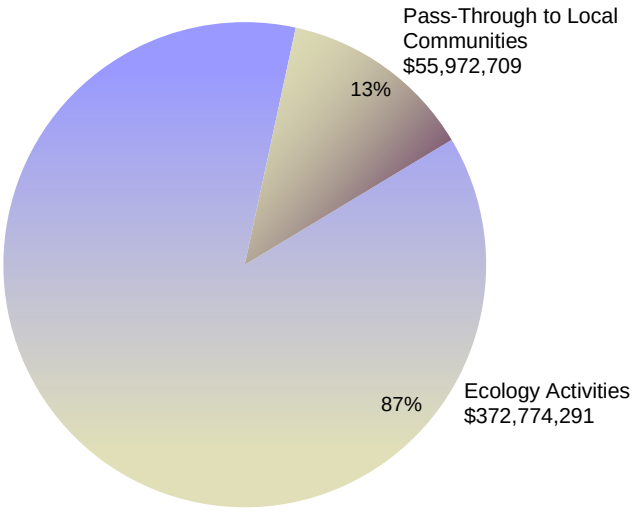
By Fund Source

Accounts	Amount	%
Water Pollution Control Revolving – State (727)	$162,910,941	20.8
Local Toxics Control (174)	154,009,804	19.7
State Building Construction (057)	145,022,796	18.5
Water Pollution Control Revolving – Federal (727)	104,342,416	13.3
State Toxics Control (173)	73,213,019	9.4
Columbia River Basin Water Supply Development (10P)	50,854,337	6.5
Cleanup Settlement (15H)	45,649,711	5.8
General Fund – Federal (001)	15,527,051	2.0
Site Closure (125)	12,052,000	1.5
Water Pollution Control Revolving – Federal ARRA (727)	9,703,026	1.2
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	2,272,000	0.3
General Fund – Federal ARRA (001)	1,498,000	0.2
Water Quality Capital (11W)	1,372,573	0.2
Air Pollution Control (216)	1,154,219	0.1
Waste Tire Removal (08R)	1,100,000	0.1
State & Local Improvements Revolving – Waste Disposal Facilities (Referendum 26) (051)	1,026,756	0.1
State & Local Improvements Revolving – Waste Disposal Facilities (Referendum 39) (055)	278,125	<0.1
Total	**$781,986,774**	**100.0**

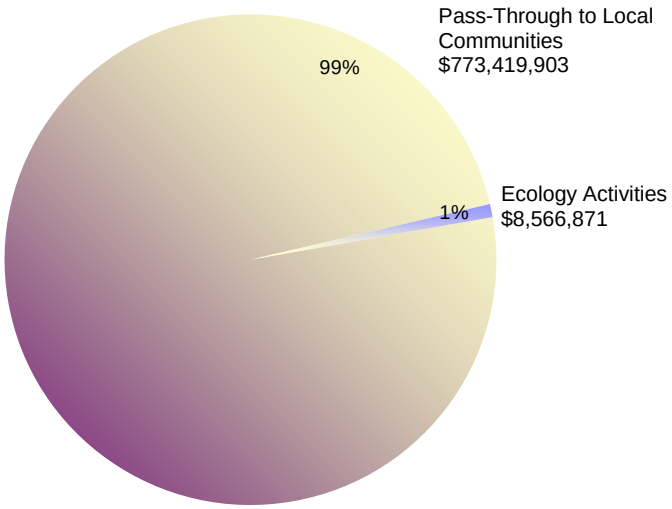
Ecology 2011-13 Biennium Budget
Pass-Through Funding

Most of the money Ecology manages in its capital budget 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 watershed planning, building water pollution control facilities, cleaning up publicly-owned contaminated sites, and supporting community awareness and involvement in hazardous waste management and pollution prevention.

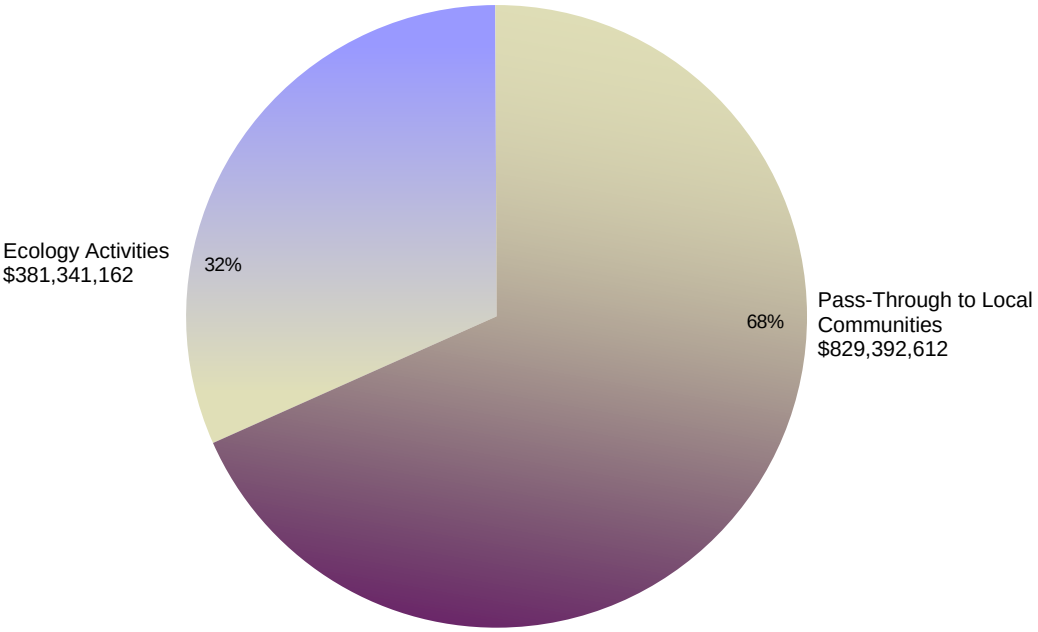
Operating Budget = $428,747,000



Capital Budget = $781,986,774



Combined Operating + Capital Budget = $1,210,733,774



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Ecology's Greg Hannahs calibrates automated monitoring equipment at the Walla Walla air monitoring site.

Program Mission

The mission of the Air Quality Program is to protect, preserve, and enhance the air quality of Washington; to safeguard public health and the environment; and to support a high quality of life for current and future generations.

Environmental Threats

Overall air quality in Washington has greatly improved since 1991 when the Washington State Legislature expanded statewide air quality protection. In the mid-1990s, 13 areas of Washington did not meet national health-based air quality standards for six chemicals known as "criteria" pollutants. More than three million people lived within these areas and were exposed to high pollution levels. By 2005, thanks to federal, state, and local efforts, all 13 of those areas met federal air quality standards.

However, the U.S. Environmental Protection Agency (EPA) adopted tougher air standards for fine particles in 2006. A large area in Pierce County has violated the new federal requirements, and several other communities around the state are at risk of violating the standard also. In coming years, Ecology expects EPA to once again tighten its fine particle and ozone standards. When that happens, several areas in the state could violate the new protective levels.

Meeting federal standards is very important. It reduces the health impacts of air pollution and prevents the risk of substantial financial and economic impacts on the state and local communities. But scientific studies show air pollution harms health, even at levels that don't violate federal standards. Many communities that meet standards may exceed "healthy" pollution levels several times a year, exposing citizens to significant health risks. Air pollution causes lung disease, worsens existing heart and lung disease, increases chronic breathing problems and cancer risks, and decreases lung function in children—making them more vulnerable to chronic lung disease as adults. Air pollution can hasten death for people with these health problems.

Extremely fine particles in smoke and engine exhaust are the primary air pollution health concern in Washington. Hundreds of other chemicals, known as toxic air pollutants, enter the atmosphere from a wide variety of sources. Regulations require emission controls for most of these toxics, but there are currently no health-based ambient air standards for these chemicals. Studies are increasingly showing they pose significant risks to human health and the environment. The sources of most concern are the toxic particles and chemicals emitted from vehicles, diesel engines, and burning wood and other vegetation.

Air pollutants also damage soil, water, crops, vegetation, man-made materials, property, animals, and wildlife; they impair visibility and affect climate and weather. 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. Preliminary studies show a significant pollution source to water quality and marine and river sediments is coming from pollution in the air that lands directly in water or on land where rain water carries the pollutants to surface water.

Authorizing Laws

- *Federal Clean Air Act*
- *RCW 70.94, Clean Air Act*
- *RCW 70.120, Motor Vehicle Emission Control*
- *RCW 70.235, Limiting Greenhouse Gas Emissions*
- *RCW 80.80, 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, such as dealers.*
- *Agricultural businesses.*
- *General public.*

Issues

Mitigating High 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 we used to think. 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 nearly 1,100 premature deaths and more than $190 million each year in health and societal costs of diseases in Washington. Sharing this health and health care cost information with policymakers and the public is an important first step in Ecology's efforts to identify and implement new strategies to combat air pollution.

Responding to Violations of Federal Standards

In addition to its recent tightening of the fine particle standard, EPA is using the latest health information to make other air quality standards even more protective. EPA has introduced new, tougher air quality standards for several pollutants, including lead, nitrogen dioxide, and sulfur dioxide. Ecology also expects tougher standards for ozone and fine particles soon. Ecology will need new air pollution prevention and control policies, tools, and approaches in Washington to meet these cleaner air levels and limit public exposure to toxic air pollution. Developing federally required clean air plans for new areas that violate standards will significantly increase monitoring, technical analysis, planning, and strategy development work for Ecology. This increased resource need comes at a time when federal grants to the state for air quality protection are expected to decline significantly.

Reducing Diesel Soot

Ecology has determined that soot from diesel engines is the greatest toxic health threat from air pollution in Washington. Through fiscal year 2011, we have completed efforts to install emission control equipment on existing diesel school buses and other publicly-owned diesel fleets. Depending on the age and type of equipment, retrofits result in a 30-100 percent reduction in particle emissions. To date, more than 10,000 retrofits have been completed on 8,100 engines, and exposure to diesel emissions has been reduced for more than 450,000 school children every day. Retrofits have resulted in reductions of more than 27 tons of toxic diesel soot each year, with significant health care and economic savings in Washington. Work must now shift to address the legacy fleet of private sector engines, especially in areas where lots of these large engines (on ships, trains, and heavy duty trucks) work in close proximity, such as at ports and distribution centers. We are encouraging adoption of anti-idling programs to reduce toxic vehicle exhaust around schools, hospitals, daycare centers, and other places where people can be severely impacted. New funding is being used to install anti-idling equipment on heavy duty public sector vehicles, such as maintenance equipment, fire engines and aid units. Despite all of these efforts, we need ongoing, strengthened efforts to reduce public exposure to and health risks from toxic diesel soot.

Smoke

Ecology has determined that fine particle pollution from smoke is the second greatest toxic threat from air pollution in Washington. The largest source of this pollution is using wood for heating. During winter months, stagnant weather conditions and smoke from wood heating devices contribute to serious air quality problems. Pollution from these sources is a major factor in violations of the federal fine particle standard. Ecology and local air quality agencies are taking steps to reduce this pollution by offering incentives to people in some of the most affected areas to trade out older, more polluting wood stoves with newer, cleaner models or to alternative forms of heat such as gas or electricity.

Burning household trash (illegal in Washington), yard waste, and debris from land clearing, agricultural and forest activities also creates significant amounts of air pollution that harms citizen health. Washington's clean air law restricts what burning is allowed and where. In January 2007, state law banned outdoor burning within all urban growth areas of the state.

The trend toward tighter restrictions on burning creates conflict between the pressure or desire to burn and the demand for clean air. The pressure to burn agricultural and horticultural debris and intentional burning in forests is likely to increase, and land clearing and backyard burning to reduce yard waste are common practice in some communities. There is also increasing pressure to burn biomass for energy, including burning wood and other organic wastes, to offset greenhouse gas emissions associated with burning fossil fuels. At the same time, pressure to reduce burning is also increasing. People understand the health consequences of breathing smoke particles and don't like to be "smoked-out." We expect 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 necessary burning.

Visibility and Regional Haze

Citizens complain when air pollution affects their view of Mt. Rainier, the Olympics, or the Columbia Gorge. Federal law requires the state to eliminate human-caused visibility impairment in our national parks and wilderness areas by 2064. Ecology has reinstated its regional haze program and has completed an evaluation of pollution sources that will be a critical part of the overall plan to achieve and maintain the federally-required visibility goals. The visibility plan containing industrial source controls and other strategies has been submitted to EPA for approval.

Responding to Climate Change

To make meaningful reductions in greenhouse gases, citizens and policy makers must know what activities emit those gases, and in what quantities. Ecology has a specific role to create a high-level emissions inventory that catalogues these emissions for the state over time, by industry, and by economic sector. Statute also requires Ecology to create and operate a greenhouse gas reporting program requiring individual entities that emit certain quantities of greenhouse gases to report those emissions. This information will be used to better inform the emissions inventory. And it will help guide future federal and state climate policy direction and decisions that target emission reductions across Washington.

Ecology provides expertise on emissions from vehicles and motor fuels. Emissions from the transportation sector are the largest single source of greenhouse gases in Washington. We support 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. Our staff also worked to develop recommendations for the Governor regarding adopting a low-carbon fuel standard for Washington (Executive Order 09-05). And Ecology will implement any changes required by federal clean car regulations for greenhouse gas emissions.

Ecology is currently working with the TransAlta coal-fired power station to implement an agreed order to achieve significant greenhouse gas emission reductions at that facility. We will also implement new federal climate regulations for major industrial source permittees. These new requirements place an increased burden on the rule development and commercial/industrial permitting resources in the agency.

Activities, Results & Performance Measures

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: (1) air quality monitoring (assessing trends; focused compliance; and assessing control strategies, health effects, and environmental damage); (2) emission inventory development (quantifying pollution released by sources of air pollution); and (3) 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

- Percent of monitoring data that is valid.

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 standards trigger costly regulatory actions for state and local governments, businesses and consumers, result in economic constraints, and create 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, 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 right now.

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 EPA, is attained and maintained, and federal sanctions are avoided.
- Violations of ambient air quality standards are prevented.
- State Implementation Plan strategies are analyzed and evaluated for areas out of compliance with federal air quality standards—Pierce County/Tacoma, Yakima.
- Strategies are evaluated to help prevent areas from violating federal air quality standards in at-risk communities

Performance Measures

- Number of areas in Washington measuring air quality levels that are not in compliance with federal air quality standards (Non-Attainment Areas).
- Number of citizens exposed to levels of pollution that exceed federal air quality standards.

Reduce Air Pollution from Industrial and Commercial Sources

Ecology issues permits to new and existing industrial and commercial facilities that emit significant levels of air pollution. Permit programs are mandated either by federal or state clean air laws and are designed to be self-supporting through fees. 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.

Ecology develops and modifies industrial source regulations to incorporate federal and state law changes, simplify and streamline permit requirements, and ensure public health protection. We conduct compliance inspections, resolve complaints, and develop technical and policy direction on emerging industrial permit issues.

Expected Results
Air pollution from industrial and commercial sources is managed 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 timeframes for permits.
- Ecology and local air pollution control agencies retain delegation and local control of federal permit programs.

Performance Measure

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

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 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 the Washington Clean Car standards, a 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.

Expected Results
Air pollution emissions from motor vehicles are reduced.

- Pollution from on-road motor vehicles is reduced approximately 10 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 bus and public fleet engine retrofits are completed and appropriate private sector engines are retrofitted with air pollution controls.
- State and Federal Diesel Emission Reduction Act (DERA) and American Recovery and Reinvestment Act (ARRA) funds are managed to reduce highest risk toxic diesel emissions.
- Strategies to reduce engine idling in high exposure areas (near schools and around truck stops) continue being developed and implemented.

Performance Measures

- Tons of motor vehicle emissions produced statewide.
- Tons of diesel soot emissions produced statewide.
- Tons of diesel soot emissions produced in counties contiguous to Puget Sound.

Reduce Health and Environmental Threats from Smoke

Nagging regional smoke pollution plagues many areas in Washington and affects public health and quality of life. To address these continuing problems 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, we promote development and use of practical alternatives to burning.

To address smoke from residential wood heating, Ecology:

- coordinates burn curtailments;
- conducts woodstove change-out programs;
- sets strict emission limits for new stoves and promotes development of cleaner-burning technologies; and
- coordinates with EPA on standards for residential home heating appliances.

Our ongoing goal is to achieve and maintain air quality levels in Washington communities that experts agree is sufficient to protect human health.

Expected Results
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.
- Woodstove emissions are reduced through creating and implementing a proper burning outreach campaign, effective burning curtail-ments, change-out of uncertified woodstoves, and working with EPA to develop more strin-gent certifications for wood burning devices.

Performance Measures

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

Reduce Risk from Toxic Air Pollutants

No outdoor air quality standards, and few emission limits, have been established for the hundreds of toxic chemicals (totaling millions of pounds) emitted into the air each year in Washington. Emerging assessments and toxics risk models indicate the levels and extent of airborne toxics pose significant health and environmental risks, including cancer, other serious health effects, and death. 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.

- Diesel soot emissions are reduced 40 percent by 2015 using a 2005 baseline.
- State and Federal Diesel Emission Reduction Act (DERA) and American Recovery and Reinvestment Act (ARRA) funds are used to reduce diesel emissions near ports and other toxic hot spots.
- Woodstove replacements target high use stoves in high risk communities.
- Emission inventories and understanding of ambient concentrations and sources of priority toxics are improved.
- Appropriate strategies to reduce emissions of priority toxics are evaluated and started.
- Strategies to reduce diesel emissions and engine idling in high exposure areas (near schools, ports, freight distribution centers, and truck stops) continue to be developed and implemented.

Performance Measures

- Number of diesel engines (school buses and public and private sector fleets) retrofitted with pollution control equipment.
- Number of woodstoves replaced with cleaner burning technologies.
- Tons of diesel soot emissions produced statewide.
- Tons of diesel soot emissions produced in counties contiguous to Puget Sound.

Climate Change Mitigation & Adaptation

State law sets greenhouse gas emission reduction targets for Washington and requires the development of strategies to adapt to climate changes that are both projected and already underway.

Ecology collects and analyzes data to understand the sources, types, and amount of greenhouse gases in Washington, and implements state and federal laws that establish strategies that reduce greenhouse gas emissions.

To better understand the distribution and volume of greenhouse gases emitted in the state, Ecology is required to develop and maintain a biennial greenhouse gas emissions inventory. In addition, the Legislature directed Ecology to develop a rule requiring certain sources to report their greenhouse gas emissions beginning in 2013 for 2012 emissions. We are currently developing the information systems necessary to collect, store and report that information.

To help the state achieve its statutory greenhouse gas reduction targets, Ecology is implementing state legislation that reduces emissions from the TransAlta coal-fired power plant; incorporating greenhouse gas emission limits in large new industrial facility permits as required under federal law; and ensuring new power plants mitigate 20 percent of their CO2 emissions and meet a greenhouse gas emission performance standard established in state law. In addition to implementing state and federal emission reduction requirements, Ecology is required to regularly report on progress towards meeting the state's statutorily required reduction targets.

Activities associated with adapting to climate change are located in the Climate Policy Group in the agency Administration section of this overview. Expected results and Performance Measures noted below are intended to be agencywide.

Expected Results

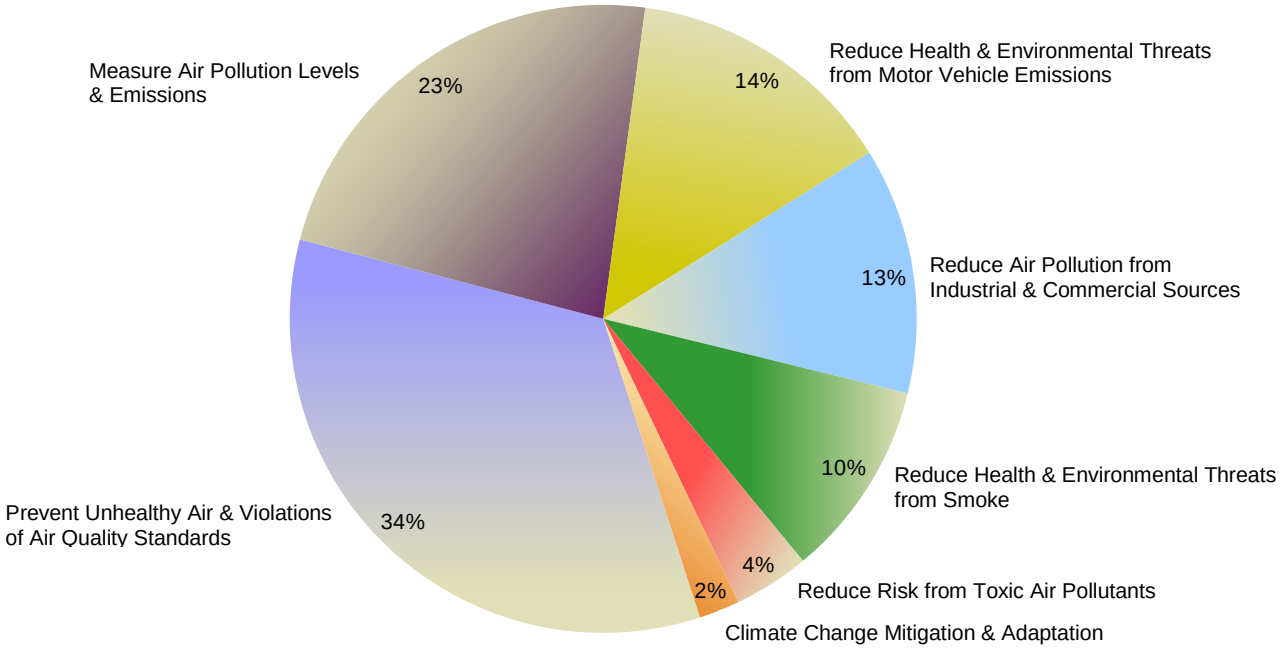
- Decision makers and the public have better information, knowledge, and understanding of the volume and sources of greenhouse gas emissions in the state.
- Greenhouse gas emissions are being reduced sufficiently to meet the state's statutory reduction targets.
- Citizens, businesses, local governments, and state agencies are aware of existing and projected impacts resulting from a changing climate and are taking steps necessary to preserve and protect assets, resources, and operations.
- State agencies lead by example in reducing greenhouse gases associated with their operations and in helping the state prepare for the impacts of climate change.

Performance Measure

- Tons of greenhouse gas emissions produced statewide.

Air Quality Program 2011-13 Biennium Budget
By Activities

Operating Budget = $31.0 Million; FTEs = 106.7



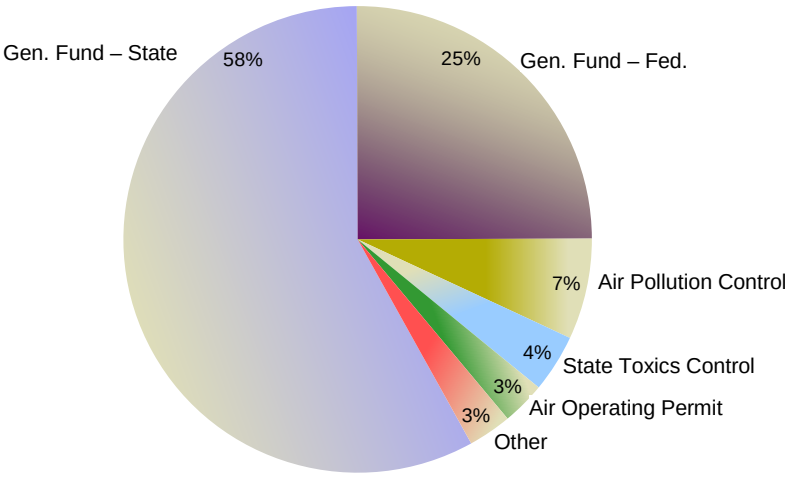
Activities	Dollars	FTEs
Prevent Unhealthy Air & Violations of Air Quality Standards (A034)	$10,566,523	21.0
Measure Air Pollution Levels & Emissions (A025)	7,166,379	26.2
Reduce Health & Environmental Threats from Motor Vehicle Emissions (A047)	4,332,691	19.4
Reduce Air Pollution from Industrial & Commercial Sources (A045)	3,940,478	18.0
Reduce Health & Environmental Threats from Smoke (A048)	3,165,903	13.5
Reduce Risk from Toxic Air Pollutants (A051)	1,194,113	5.4
Climate Change Mitigation & Adaptation (A063)	644,608	3.2
Air Quality Operating Budget Total	**$31,010,695**	**106.7**

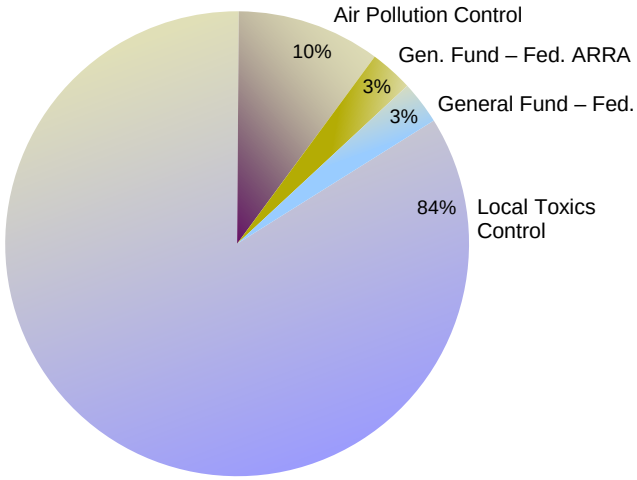
Air Quality Program 2011-13 Biennium Budget
By Fund Source

Operating Budget = $31.0 Million

FTEs = 106.7

Capital Budget = $11.8 Million





Other = Wood Stove Education & Enforcement (1.87%), General Fund – Private/Local (1.06%), and Special Grass Seed Burning Research (0.01%).

Operating Fund Sources	Amount	Uses
General Fund – State (001)	$17,899,347	Ambient air monitoring, grants to local air authorities, new source permitting, modeling & meteorology, emission inventory, vehicle emission testing, outdoor & agricultural burning permitting, woodstove education, climate change.
General Fund – Federal (001)	7,763,352	State & local air authority grants for ambient air monitoring, emission inventory, modeling, meteorology, & other air quality activities.
Air Pollution Control (216)	2,139,207	Minor source & new source permitting, agricultural burning permitting, agricultural burning alternatives research, greenhouse gas reporting.
State Toxics Control (173)	1,156,292	Developing strategies to respond to and prevent violations of national ambient air quality standards in Washington communities.
Air Operating Permit (219)	1,138,913	Permitting of major air pollution sources, small business technical assistance.
Wood Stove Education & Enforcement (160)	581,275	Enforcement of & education regarding proper woodstove use, grants to local air authorities.
General Fund – Private/Local (001)	329,309	Implement activities associated with a regional haze program, ambient air monitoring, telemetry system.
Special Grass Seed Burning Research (023)	3,000	Research on alternatives to grass seed burning.
Operating Budget Total	**$31,010,695**	
Capital Fund Sources		
Local Toxics Control (174)	$9,958,827	Reducing harmful emissions from heavy duty diesel engines through use of anti-idling technologies in public fleets statewide. Reducing harmful emissions from wood stoves in at-risk communities statewide.

Air Pollution Control (216)	1,149,865	Reducing harmful emissions from heavy duty diesel engines in Tacoma. Reducing harmful emissions from wood stoves in Tacoma.
General Fund – Federal ARRA (001)	380,000	Federal American Reinvestment & Recovery Act stimulus funding for reducing diesel emissions.
General Fund – Federal (001)	332,463	Reducing harmful emissions from heavy duty diesel engines statewide.
Capital Budget Total	**$11,821,155**	
Air Quality Operating & Capital Budget Total	**$42,831,850**	

Ecology's Glenn Merritt photographs an aquatic vertebrate that was collected by electrofishing in an effort to describe the community of vertebrates in the North Fork of the Asotin River. Monitoring the presence of different species of vertebrates is a component of Ecology's status and trends monitoring program.

Program Mission

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

Environmental Threats

Ecology conducts monitoring programs and designs scientific studies to measure the quality of water, sediments, and fish tissue in marine and fresh waters across the state. We address both point and nonpoint pollution sources. We use this data to evaluate threats ranging from conventional pollutants, such as fecal coliform bacteria, nutrients, and temperature, to toxic contaminants and invasive aquatic weeds.

Based on our monitoring data, we identify violations of water and sediment quality criteria and assess the condition of aquatic habitat and biological communities. In doing so, 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.

Authorizing Laws

- *Federal Clean Water Act*
- *RCW 43.21A, Department of Ecology*
- *RCW 70.105D, Model Toxics Control Act*
- *RCW 70.119A.080, Public Water Systems – Penalties and Compliance*
- *RCW 90.48, Water Pollution Control*
- *RCW 90.71, Puget Sound Water Quality Protection*

Constituents/Interested Parties

- *Federal and local governments; 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 cleanup efforts, guide regulatory actions (including permitting decisions and instream flow rule setting), and provide data to support critical management decisions.

Water Quality Improvement Studies (Total Maximum Daily Load Studies)

Section 303(d) of the federal Clean Water Act requires the state to develop Water Quality Improvement Plans (also known as Total Maximum Daily Loads) for waterbodies that don't meet water quality standards. As part of a lawsuit agreement, a memorandum of agreement with the U.S. Environmental Protection Agency (EPA) requires Ecology to develop nearly 1,500 water quality improvement plans by 2013. At current funding levels, meeting this goal while keeping up with newly discovered listings will be a challenge. Ecology is working with EPA and the lawsuit plaintiffs to renegotiate the settlement agreement and extend the timeframe for compliance.

Marine Waters – Linking Models with Monitoring
For our marine waters, linking water quality and hydrodynamic (circulation) models to a carefully designed monitoring program could provide a powerful new approach to assessing and predicting environmental impacts. We are using this approach right now in our South Puget Sound dissolved oxygen study. South Puget Sound is particularly vulnerable to pollutants due to the large number of sources and limited water circulation.

When completed, this combined modeling/ monitoring program will provide the data we need to specify measures to reduce pollutant discharge (e.g., denitrification requirements for wastewater treatment plants).

Stream Gauging
Watersheds across the state are requesting our help to initiate and maintain stream flow gauging. Watershed managers need stream flow data to support in-stream 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 EPA, Ecology is working with the Department of Health and local health agencies to monitor bacterial contamination at many (but not all) 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. During 2011, Ecology received an additional grant from EPA's National Estuary Program that allowed us to monitor an additional 31 beaches (for a total of 81) during the 2011 monitoring season.

Emerging Toxic Threats
Toxic chemicals are widespread in the environment, but analyses are costly, and we 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, we are frequently asked, "What is the overall health of the environment?" (e.g., "is the water getting cleaner or dirtier?"). Site-specific sampling only tells us 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 (such as Puget Sound or the Columbia Basin).

To do this, Ecology needs to expand its statistically-reliable monitoring programs to help us measure progress toward our broad environmental goals—like the restoration of Puget Sound or improving watershed health to support salmon recovery. Without such programs, Ecology won't be able to answer the basic question, "Is the water quality and environmental condition of the state (or any region of interest) getting better or worse?"

Status and Trends In Freshwater
Beginning in the 2009-11 biennium, the Legislature provided ongoing funding for a statewide status and trends monitoring program. This program will provide statistically reliable estimates of the overall status, condition, and trends in freshwater quality and aquatic habitat.

Physical, chemical, and biological data were collected in the Washington Coastal and Lower Columbia River Salmon Recovery Regions during fiscal year 2011. Ecology's efforts will shift to the Middle Columbia River and Snake River Regions during fiscal year 2012.

Ecology completed a data management system to house the status and trends data during the 2009-11 biennium and we are currently using EPA grant funding to develop a web interface to allow enhanced access to the data.

Groundwater Monitoring
We have no program in place to systematically monitor groundwater quality or quantity. This represents a significant gap in our understanding of pollution sources and transport, and means we can't predict how groundwater levels may change as a result of water withdrawals, surface flows, climate, and precipitation trends, etc. Without an adequate

groundwater monitoring program, we will not be able to properly manage drinking and irrigation water supplies or evaluate this important pollution pathway. We are continuing to look for funding opportunities to fill this gap.

Urban Waters Initiative

This program provides baseline status and trends for toxics reduction efforts in a rotating series of urban bays. It is the best way to measure the net effect of targeted cleanup activities and compare local conditions to overall Puget Sound-wide sediment quality. Ecology will sample sediments in Everett Harbor/Port Gamble in 2012 then cycle back to Elliott Bay/Lower Duwamish in 2013 (last sampled in 2007).

Biological Assessment

Most of our management actions are ultimately intended to benefit the living resources of our rivers, streams, lakes, and marine waters. So, it makes sense to more directly assess the biological health of our waters. Monitoring benthic invertebrate communities, or phytoplankton abundance and distribution, can provide a more direct measure of environmental health than our usual chemical and physical parameters. Therefore, during the past biennium, we have developed an ambient biological monitoring program with a network of 33 sites statewide.

Monitoring Coordination and Data Sharing

There are multiple organizations mandated or chartered to coordinate monitoring and data sharing. These include the Puget Sound Partnership and the Pacific Northwest Aquatic Monitoring Partnership. Each of these groups is developing pathways to improve monitoring coordination; standardize field methods and protocols; standardize data sharing formats; and integrate monitoring at watershed, regional, and statewide levels. Coordination (or streamlining) among these groups is critical. Recently, EPA has adopted a new method of providing funding through its National Estuary Program (NEP) grants using "lead organizations" to distribute the funding. This change has increased coordination between state agencies that receive the NEP funds.

Activities, Results & 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, Water Pollution Control Act, and Model Toxics Control Act. 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 water cleanup studies, which calculate the total maximum daily load (TMDL) of a pollutant a waterbody can absorb without causing violations of water quality standards. Under a Memorandum of Agreement with the EPA, Ecology must develop nearly 1,500 TMDLs by 2013. 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.

Ensure Environmental Laboratories Provide Quality Data

Ecology accredits environmental laboratories that submit data to us. The accreditation program covers analyses in all typical environmental matrices (water, 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 the 480 labs 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.

- Approximately 460 environmental laboratories in 26 states and two provinces, including 106 drinking water laboratories, are evaluated and accredited.
- Performance testing analyses for major permitted wastewater discharge laboratories are evaluated.
- Regulated laboratories maintain successful, quality programs.
- Environmental and public health decisions are based on accurate and defensible scientific data.

Performance Measure

- Percent of acceptable performance 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, our 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 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

- Percent of environmental monitoring field procedures covered by formal standard operating procedures.

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, Water Pollution Control Act, Puget Sound Water Quality Protection Act, and Model Toxics Control Act.

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

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

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.

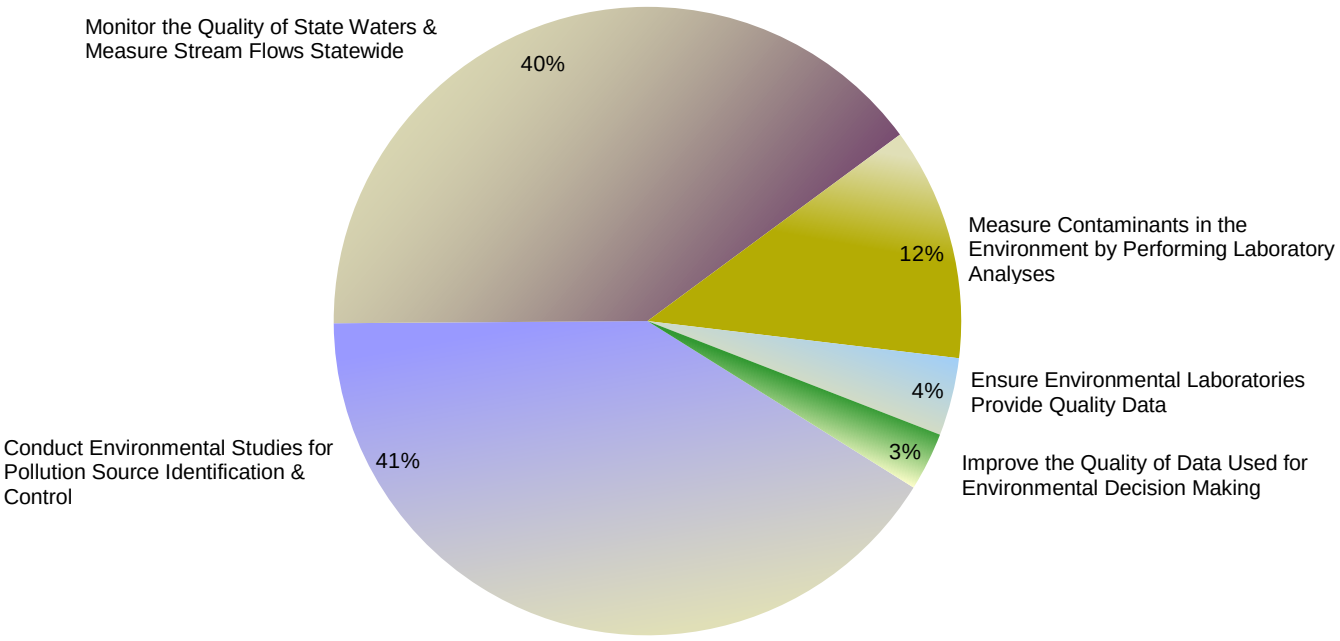
- Monthly samples from approximately 82 freshwater and 35 marine water sites are collected.
- Stream flows at approximately 62 near real-time stations are measured and reported.
- Real-time stream flow data is provided via the web.
- Ecology staff and the public are alerted to emerging water quality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

Performance Measures

- Percent of monitored stream flows below critical flow levels.
- Statewide river and stream water quality index score.

Environmental Assessment Program 2011-13 Biennium Budget By Activities

Operating Budget = $31.1 Million; FTEs = 137.8

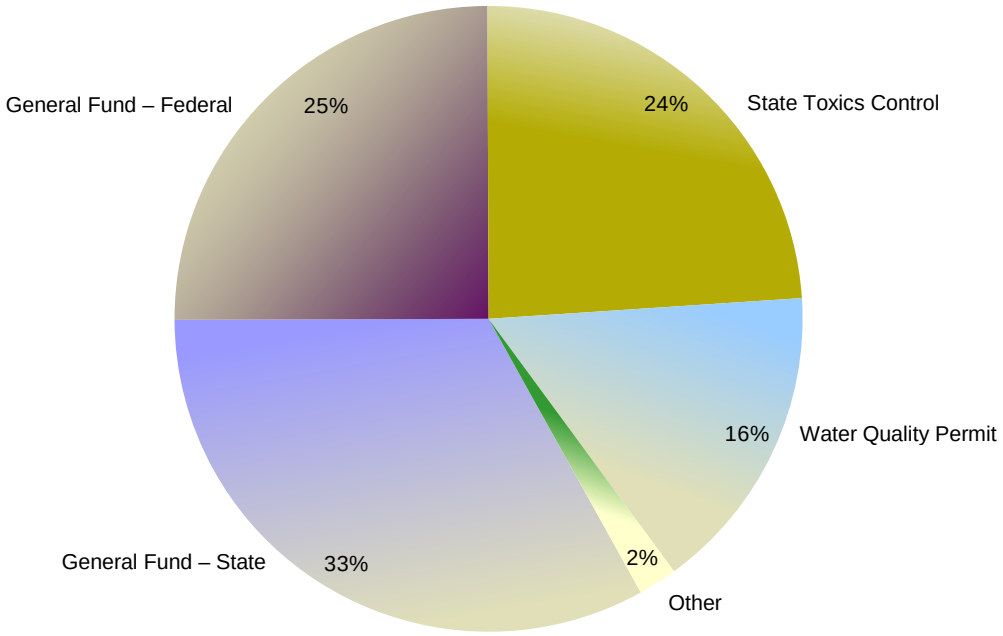


Activities	Dollars	FTEs
Conduct Environmental Studies for Pollution Source Identification & Control (A007)	$12,773,158	49.9
Monitor the Quality of State Waters & Measure Stream Flows Statewide (A027)	12,362,271	48.9
Measure Contaminants in the Environment by Performing Laboratory Analyses (A026)	3,548,088	28.6
Ensure Environmental Laboratories Provide Quality Data (A012)	1,357,579	6.0
Improve the Quality of Data Used for Environmental Decision Making (A020)	1,014,871	4.4
Environmental Assessment Operating Budget Total	**$31,055,967**	**137.8**

Environmental Assessment Program 2011-13 Biennium Budget By Fund Source

Operating Budget = $31.1 Million **No Capital Budget**

FTEs = 137.8



Other = General Fund – Private/Local (1.06%) and Freshwater Aquatic Weeds (0.76%).

Operating Fund Sources	Amount	Uses
General Fund – State (001)	$10,400,928	Water quality monitoring, marine sediment monitoring, streamflow monitoring, groundwater investigations, technical assistance, water cleanup studies, laboratory accreditation, quality assurance.
General Fund – Federal (001)	7,712,176	Water quality monitoring, marine sediment monitoring, groundwater investigations, water cleanup studies, effectiveness monitoring.
State Toxics Control (173)	7,398,680	Water quality monitoring, toxics monitoring, marine sediment monitoring, groundwater investigations, water cleanup studies.
Water Quality Permit (176)	4,979,413	Water cleanup studies, groundwater investigations, technical assistance, compliance monitoring.
General Fund – Private/Local (001)	328,670	Water quality monitoring, marine sediment monitoring, laboratory analytical work.
Freshwater Aquatic Weeds (222)	236,100	Technical assistance, monitoring.
Operating Budget Total	**$31,055,967**	
Environmental Assessment Operating & Capital Budget Total	**$31,055,967**	

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Ecology's dangerous waste inspector Dee Williams collects samples of toxic waste from a nearby underground tank.

Program Mission

The Hazardous Waste and Toxics Reduction (HWTR) Program envisions a society where waste is viewed as inefficient and where most wastes and toxic substances have been eliminated. To achieve this vision, HWTR set goals 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.

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, while 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, bioaccumulative toxins (PBTs), and heavy metals.

When hazardous chemicals and products are no longer usable, they become hazardous wastes, or dangerous wastes as they are known in Washington. Washington law uses the term *dangerous waste*. Federal law uses the term *hazardous waste*. While these terms are sometimes used interchangeably, Washington's definition includes some substances, such as PBTs, that are not included in the federal definition.

When dangerous or hazardous wastes are mismanaged, they get into water and soil where they may harm human health and the environment, or cause costly cleanup sites. Washington has had over 6,400 toxic sites cleaned up or reported cleaned up in the state. Nearly 300 new sites are reported each year and approximately 200 site cleanups are completed each year. 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 to taxpayers.

Around 1,200 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. We also work with local governments to ensure safe handling of hazardous waste produced by thousands of smaller businesses—known as Small Quantity Generators—in Washington. Safe dangerous waste management is essential to protect human health and the environment, but avoiding the use of toxic chemicals in the first place is the smartest, cheapest, and healthiest approach.

The risk from toxic chemicals is not only from leaking drums at an industrial site. Each of us affects the environment, others, and our own health 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.

While reducing the use of toxic chemicals and ensuring safe management of dangerous waste are our two highest priorities, Ecology recognizes the continuing economic challenges facing the state. Many businesses have had to cut positions focused on environmental issues and need help now more than ever. Similarly, our program has had to cut several positions and streamline our work efforts. Still, our focus remains on helping the public and businesses make informed choices about the use of toxic chemicals and their ultimate safe disposal.

Authorizing Laws

- *Federal Emergency Planning and Community Right-to-Know Act*
- *Federal Resource Conservation and Recovery Act (1980)*
- *RCW 15.54, Fertilizer Regulation Act (Ecology's oversight authority over waste-derived fertilizers)*
- *RCW 49.70, State Worker and Community Right-to-Know Act*
- *RCW 70.95, Hazardous Waste Reduction Act*
- *RCW 70.95C, State Solid Waste Act*
- *RCW 70.95E, Hazardous Waste Fees*
- *RCW 70.102.020, Hazardous Substance Information Act*
- *RCW 70.105 (1976), Washington's Hazardous Waste Management Act*
- *RCW 70.105D (1989), State Hazardous Waste Clean Up (MTCA)*
- *WAC 173-303, Dangerous Waste Regulations (2000)*
- *WAC 173-305, Hazardous Waste Fees (1992)*
- *WAC 173-307, Pollution Prevention Plans (1991)*

Constituents/Interested Parties

- *The 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

Focus on Compliance

While we work 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. Mismanagement of hazardous waste:

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

Formal state dangerous waste inspections at larger, regulated businesses and facilities are critical to public and environmental health. These businesses handle the bulk of the state's toxic chemicals. Inspections can be unannounced or scheduled.

During the 2009-11 biennium, Ecology staff performed over 500 compliance inspections at facilities that generate or manage dangerous waste. These inspections resolved nearly 500 serious environmental threats. Such threats have the potential to pollute our environment through leaks or spills from unsafe storage methods or containers.

The inspections also revealed how well facilities complied with state and federal regulations. Unfortunately, we found serious environmental violations at almost 60 percent of regulated businesses we inspected in 2009-11. This is one of the highest rates in 20 years.

With a stronger field presence ten years ago, dangerous waste inspectors found serious environmental threats at 27 percent of businesses. Why the increase? An EPA study of Washington businesses showed a 20 percent increase in environmental threats when more than three years passed between inspections. Not surprisingly, our low year for number of inspections was 2007, with a peak in significant violations three years later in 2010. New funding for four Puget Sound-area compliance inspectors should help improve this current trend.

When technical assistance and voluntary compliance isn't enough, Ecology uses formal enforcement to halt significant violations. Ecology officials issued 12 penalties in the 2009-11 biennium. This is slightly higher than the historic average of six to eight penalties issued each year. When monetary penalties are received, they are deposited into the State Toxics Control Account where they fund programs across several state agencies.

Local Source Control Program

Businesses of all types and sizes produce and use a variety of toxic chemicals. Even small amounts of mismanaged toxic chemicals can create

contaminated sites and pollute stormwater. Many smaller businesses had never had an environmental inspection or technical assistance visit until Ecology created the Local Source Control Program.

In 2008, Ecology established performance contracts with 12 Puget Sound counties (in addition to Spokane County). These contracts provide for Local Source Control Specialists to conduct technical assistance visits to small businesses. These technical assistance visits help small businesses comply with dangerous waste and stormwater control laws.

By the end of the 2009-11 biennium, Local Source Control Specialists had visited over 6,300 small businesses. This service helped them better manage their stormwater and dangerous wastes. Almost half of these visits found and addressed minor dangerous waste, stormwater, or spill violations. In the 2011-13 biennium, we will add additional local government partners and exceed 10,000 total site visits.

Reducing Risk through Technical Assistance to Businesses

Face-to-face 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 toxic chemicals, ensuring better compliance with state dangerous waste laws.

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

During the 2009-11 biennium, Ecology staff conducted over 1,100 business assistance visits. We provided business-specific advice on how to:

- Reduce the use of hazardous materials.
- Avoid generating waste.
- Manage hazardous 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 toxic chemicals.

For example, Crown Beverage Packaging, Inc., is a can manufacturing facility in Olympia. In 1991, they were a large quantity generator of dangerous waste. By working with Ecology, Crown lowered their use of hazardous substances and generation of hazardous waste. They did this while keeping relatively constant production levels. In their most recent pollution prevention plan, Crown reduced hazardous waste generation by 70 percent and water consumption by 2.5 million gallons per year. A recent energy audit expects to net Crown over $160,000 per year in savings.

Ecology is also working with businesses to reduce the use of PBT chemicals and heavy metals such as lead, mercury, and cadmium. By the end of the 2011-13 biennium, our Toxic Metals Prevention Project expects to perform 300 site visits resulting in reduction of over 150,000 pounds of lead, mercury, and cadmium from Washington businesses.

Safer Chemicals

There is increasing concern about toxic chemicals in consumer products at the state level. The effects of toxic chemical exposure to human health, the environment, and the economy are enormous—and largely avoidable through pollution prevention. People expect that products sold are safe and will not adversely affect human health or the environment. While a chemical-by-chemical approach is important, Ecology also participates in efforts to advance a more systematic national chemicals policy.

A number of Ecology projects supporting safer chemicals began in 2009-11, including:

- The Toxics in Packaging Clearinghouse focused on regulating toxic metals in packaging. Ecology is working with other states to monitor compliance with restrictions on these substances. The goal is to ensure they do not end up in consumer products packaging.
- Development of the Quick Screen method to conduct safer chemical assessments by businesses and individuals. This helps identify the highest-risk chemicals, supports the

Children's Safe Products Act, and enables use by those with less time, resources, and expertise.
- A multi-state effort to reform federal chemical management law (the 1976 Toxic Substances Control Act). This includes developing states' principles on national chemicals policy reform.
- A roadmap for advancing green chemistry as an economic driver in Washington State.
- Developing rules (Better Brakes Law) resulting in auto brake friction materials that eliminate or reduce copper, asbestiform fibers, cadmium, lead, and mercury. Currently these toxic substances are being washed off roads into streams, rivers, and Puget Sound.

Over the past 20 years, businesses that track their waste generation through pollution prevention planning reduced their waste by more than 50 percent when adjusted for production. We still have much to do to reduce hazardous substances that are incorporated into products and to reduce the costs and risks associated with the remaining generated waste.

Permitting and Corrective Action

Ecology issues permits to specially designed dangerous waste treatment, storage, and disposal (TSD) facilities. The state's three commercial TSD facilities began permit renewals in the 2009-11 biennium. Ecology also oversees closure and necessary cleanup at these 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 proceeding at 39 priority sites because of their significance as designated by EPA. Ecology expects to have these 39 cleanups finished or in maintenance mode by 2020. We completed an overall average of 75 percent of the work at these sites by the close of the 2009-11 biennium. The full cleanup process takes 10-12 years to complete.

Human exposures are under control at 90 percent of these facilities. Contaminated groundwater is under control at 77 percent of the facilities. This exceeds EPA's national goals for 2011 of 65 and 55 percent, respectively. 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 hazardous substance and waste information. We retrieve and report the data to individuals and businesses, emergency responders, and local government decision makers. Our website, printed materials, telephone information line, and newsletter, *Shoptalk*, provide the most current hazardous substance and waste information. These resources help businesses and the public make informed decisions on the use and safe management of chemicals in Washington. During 2009-11, we responded to over 700 information requests from citizens and businesses through the Toxic Free Tips information service. Our HWTR program websites logged more than 500,000 visits.

Activities, Results & Performance Measures

Improve Community Access to Hazardous Substance and Waste Information

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 and its proper transport, treatment, and/or disposal; identify toxic chemicals released and stored by businesses; and track information on facilities that prepare pollution prevention plans and pay fees. These data systems provide Ecology, the public, and local governments with accurate information about the type, location, and source of hazardous substances that affect them. 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

Hazardous waste and chemical data (type, location, volume, etc.) is readily available to emergency responders, and local governments. Citizens and decision makers have access to hazardous waste and dangerous chemical data in their communities. This is accomplished through:
- Developing and distributing online the "Chemicals in Washington" report.
- Responding to 100 quarterly information requests from citizens and businesses through

the Toxic Free Tips phone line and email.
- Increasing the *Shoptalk* electronic distribution list to 5,000 by July 1, 2013.
- Creating or updating 30 business publications each year and posting them to the web for electronic distribution.
- Collecting and analyzing annual dangerous waste and "tier two" reports from facilities producing hazardous waste and storing dangerous chemicals.
- Establishing and implementing a marketing strategy for sharing pollution prevention success stories.

Performance Measure
- Number of visits to toxics-related websites.

Increase Compliance and Act on Environmental Threats from Hazardous Waste

Mismanaged hazardous wastes and poor compliance can harm people and contaminate soil and water. Ecology conducts yearly 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 do formal enforcement infrequently, repeated refusal or inability of a facility to correct violations and come into compliance with the regulations will escalate to formal enforcement actions.

Expected Results

Large and medium quantity generators and hazardous waste management facilities are in compliance with state and federal regulations. This is accomplished through:
- Conducting 345 compliance inspections in fiscal year 2012 and 410 compliance inspections in fiscal year 2013.
- Responding to 100 percent of hazardous waste related complaints (approximately 120-180 complaints per year).
- Utilizing streamlined enforcement and settlement approaches as opportunities arise.
- Issuing timely enforcement actions resulting in a deterrent to businesses and changed behavior.

Performance Measures
- Number of significant toxics-related environmental threats resolved.
- Percent 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. Even though formal enforcement work is essential to maintaining compliance with hazardous waste regulations, workshops and technical assistance visits can also help bring facilities into regulatory compliance using much fewer resources. Ecology contracts with local governments to hire staff to explain hazardous waste requirements to small businesses that otherwise would go uninspected. Safe management of hazardous waste protects the public and the environment, and allows the state to avoid significant cleanup costs.

Expected Results

Hazardous waste is safely managed, the public is protected, and businesses comply with state hazardous waste laws. This is accomplished through:
- Conducting 520 compliance-related technical assistance visits.
- Helping businesses determine how to safely manage their hazardous wastes and reduce the use of toxic chemicals.
- Creating a web-based dangerous waste workshop module for business technical assistance.
- Developing policy guidance for hospitals, used paint recycling, and auto shred residue.

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 dangerous wastes 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. These facilities are required to have closure plans to effectively deal with the end of their waste management activities. Environmental contamination found at any time before closure requires a corrective action cleanup plan. Ecology is working on 22 high priority corrective action cleanup sites right now.

Expected Results

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

- Timely issuing three high priority draft operating permits for facilities that treat, store, or dispose of hazardous wastes.
- Continuing to meet or exceed EPA's 2012 cleanup goals for protecting human health, controlling migration of contaminated groundwater, and sites reaching "remedy construction complete."
- Acting on high priority permit modifications from facilities.
- Ensuring proper financial assurance requirements are in place at used oil processors and recyclers.

Performance Measure

- Percent progress toward completed corrective action.

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. Ecology staff provide assistance through innovative programs for source and waste generation reduction, including more than 480 toxics-related technical assistance visits per year. Ecology also 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.

Expected Results

Toxics in products and the initial generation of hazardous waste is reduced resulting in less need for site cleanup, reduced public exposure, and helping save businesses money. This is accomplished through:

- Reducing hazardous waste generation by four percent each year (approximately four million pounds), resulting in cleanup and disposal cost savings for businesses, reduced public exposure, and fewer site cleanups.
- Receiving and reviewing 100 percent of pollution prevention (P2) plans (approximately 450) each year from businesses and facilities.
- Increasing the number of P2 opportunities implemented by businesses and reported to the National P2 Roundtable.
- Visiting or assisting 100 percent of pollution prevention planners using or producing waste containing lead, mercury, or cadmium.
- Documenting 150,000 pounds in lead, mercury, and cadmium reductions from businesses reporting through the Toxic Release Inventory, TurboWaste data system, P2 Planning, or other sources if quantifiable.
- Conducting two to four detailed technical assistance projects each year.
- Conducting 20 energy assessments through an Environmental Protection Agency grant.
- Prototyping the Global Reporting Framework (GRI) as a P2 plan equivalent.

Performance Measures

- Pounds of hazardous waste generated.

Reduce Toxic Chemicals in Products and Promote Safer Alternatives

Toxic chemicals in products are polluting our environment and have the potential to harm humans. Reducing toxic chemicals in products over time will lower risks to people and the environment. To make significant progress toward achieving this goal requires several strategies:

- Identifying chemicals of concern in consumer products and strengthening the ability to gather data on the presence of these chemicals in products and the environment.

- Improving tools and authorities to promote safer alternatives to identified chemicals.
- Promoting green chemistry.
- Promoting environmentally preferred purchasing.
- Improving education, outreach, and communication.

Reducing toxic chemical threats is the smartest, cheapest, and healthiest approach to protecting people and the environment.

Expected Results

Toxic chemicals in products are reduced over time to lower health risks to people and the environment. This is accomplished through:

- 40 million pounds of electronics containing toxic substances collected through the E-Cycle Program.
- Expanding the product stewardship program to paint, carpets, and pharmaceuticals.
- Collection and capture of an additional 4,000 pounds of mercury.
- Collection, evaluation, and information shared on the presence of chemicals of high concern for children in children's products.
- Assurance that state principles for chemical policy are incorporated in the federal Toxics Substances Control Act (TSCA) reform.
- Protocols, in coordination with other states, are developed for identifying safer alternatives for toxic chemicals of concern in products and manufacturing.
- Development of a chemical alternative assessment guidance document.
- Development of a green chemistry "road map" for Washington.
- Amendments to the Children's Safe Products Act passed to require manufacturers to use the protocol to assess safer alternatives to toxic chemicals of concern.

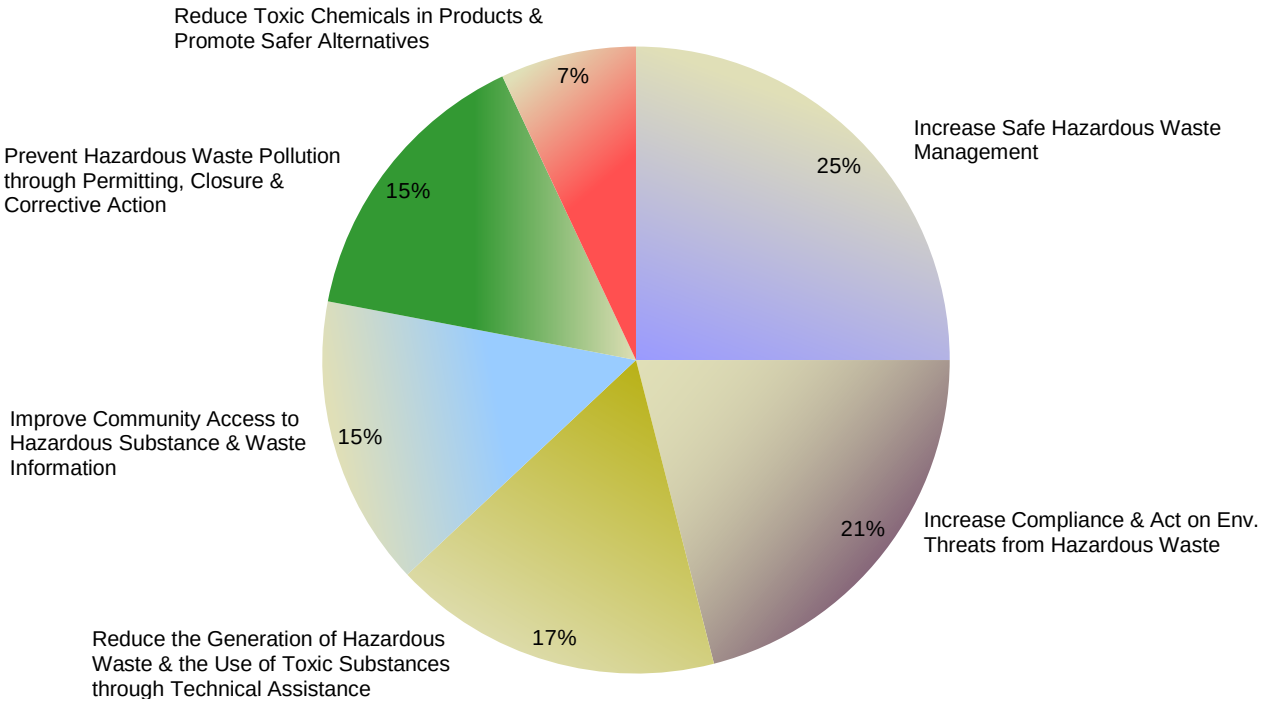
State and local governments improve purchasing practices of environmentally preferred products.

Performance Measures

- Pounds of hazardous materials reduced.
- Pounds of mercury collected and/or captured.

Hazardous Waste & Toxics Reduction Program 2011-13 Biennium Budget By Activities

Operating Budget = $29.6 Million; FTEs = 121.9



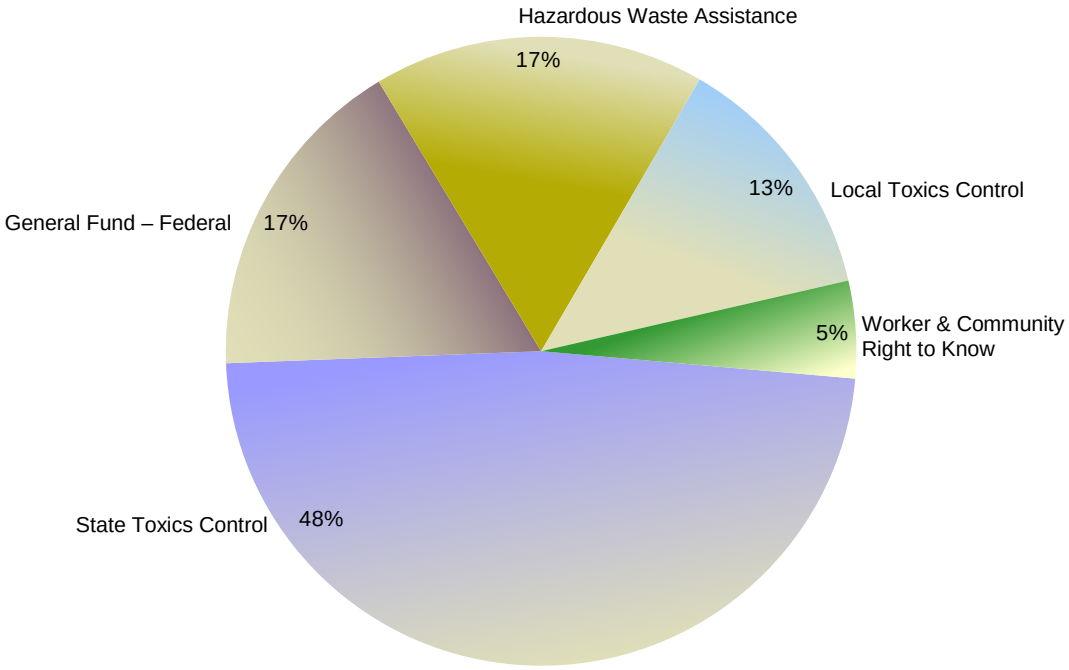
Activities	Dollars	FTEs
Increase Safe Hazardous Waste Management (A022)	$7,647,903	19.2
Increase Compliance & Act on Environmental Threats from Hazardous Waste (A021)	6,273,311	31.0
Reduce the Generation of Hazardous Waste & the Use of Toxic Substances Through Technical Assistance (A052)	5,048,618	21.7
Improve Community Access to Hazardous Substance & Waste Information (A019)	4,402,404	24.0
Prevent Hazardous Waste Pollution Through Permitting, Closure & Corrective Action (A031)	4,314,129	17.8
Reduce Toxic Chemicals in Products & Promote Safer Alternatives (A065)	1,926,983	8.2
Hazardous Waste & Toxics Reduction Operating Budget Total	**$29,613,348**	**121.9**

Hazardous Waste & Toxics Reduction Program 2011-13 Biennium Budget By Fund Source

Operating Budget = $29.6 Million
Pie shown below is operating budget ONLY.

Capital Budget = $0.5 Million
Funded entirely by State Toxics Control Account.

FTEs = 121.9



General Fund – Private/Local (0.16%) not shown in operating budget pie above (too small for display).

Operating Fund Sources	Amount	Uses
State Toxics Control (173)	$14,159,473	Promote pollution prevention & safe waste management, primarily through technical assistance to businesses, inspections of large quantity generators of hazardous waste & permitted treatment, storage & disposal facilities, & hazardous waste cleanups. Conduct criminal investigations & enforcement actions.
General Fund – Federal (001)	5,138,194	Grant funds received from EPA to implement federal Resource Conservation & Recovery Act (RCRA) & pollution prevention innovations.
Hazardous Waste Assistance (207)	5,074,622	Provide technical assistance to hazardous waste generators & hazardous substance users. Identify safer chemical alternatives for toxic or hazardous chemicals to help businesses, governments & citizens make better choices on what to use & buy.
Local Toxics Control (174)	3,759,389	Review & analyze waste-derived fertilizers as part of the fertilizer registration process. Fund & train local government specialists to provide assistance in waste management & reduction & source control in Puget Sound counties.
Worker & Community Right-to-Know (163)	1,434,879	Compile information on hazardous substance use & make this information available to citizens & other public entities.

General Fund – Private/Local (001)	46,791	Promote pollution prevention & safe waste management, primarily through technical assistance to businesses.
Operating Budget Total	**$29,613,348**	
Capital Fund Sources		
State Toxics Control (173)	$566,949	Remove known toxic components in vehicles and appliances, including switches containing mercury, prior to crushing and shredding.
Capital Budget Total	**$566,949**	
Haz. Waste & Toxics Reduction Operating & Capital Budget Total	**$30,180,297**	

Ecology's Robbie Biyani and Dieter Bohrmann observe construction of the leak detection system in the pre-treatment facility at the Hanford tank waste treatment plant.

Program Mission

The mission of the Nuclear Waste Program is to lead the effective and efficient cleanup of the U.S. Department of Energy's Hanford site, to ensure sound management of mixed hazardous wastes in Washington, and to protect the state's air, water, and land at and adjacent to the Hanford site.

Environmental Threats

The Hanford site covers 560 square miles located 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 (changing into glass) an estimated 56 million gallons of radioactive and chemically hazardous waste in Hanford's 177 underground storage tanks.
- Removing the residual corrosion sludge after removal of 2,100 tons of disintegrating nuclear fuel rods stored in the remaining water-filled concrete basin at the "K-Reactor" near the Columbia River.
- Providing groundwater monitoring for approximately 190 square miles of contaminated groundwater that flows toward and eventually enters the Columbia River. Approximately 80 square miles of contaminated groundwater currently exceed federal and state drinking water standards.
- Operating and closing 50 hazardous waste treatment, storage, and disposal sites ranging from small demolition sites to half-mile long, concrete buildings.
- Cleaning up 1,200 waste sites ranging from liquid waste disposal ditches to former reactor facilities, including 9.35 million tons of contaminated soil adjacent to the Columbia River.

Authorizing Laws

The U.S. Department of Energy (USDOE), which operates the Hanford site, 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, or Tri-Party Agreement (TPA), directs the Hanford site cleanup and reflects a concerted goal of achieving, in an aggressive manner, full regulatory compliance and remediation with enforceable milestones.

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

Authorizing laws include:

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

Constituents/Interested Parties

- *Congress, USDOE, EPA, the Defense Nuclear Facility Safety Board, and U.S. Fish and Wildlife Service.*
- *Environmental Council of States, National Governors Association, Western Governors'*

Association, USDOE's State and Tribal Government Working Group, and the Oregon Office of Energy.
- *Tribes: As the state's lead for natural resource damage assessments at the Hanford site, Ecology works with the Yakama, Umatilla, and Nez Perce Indian nations.*
- *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 Departments of Health and Fish and Wildlife and the Northwest Interstate Compact on Low-Level Radioactive Waste.*

Issues

Slowed Progress in Site Cleanup

The USDOE Environmental Management Program is the largest environmental program in the nation. The cleanup of the Hanford site is the largest effort in this program. The USDOE has missed several major cleanup milestones and will not meet many critical, near-future milestones. Ecology engaged the USDOE in unsuccessful negotiations, and then initiated litigation to address the missed milestones and establish an enforceable and achievable plan for cleaning up Hanford.

The state and USDOE agreed to a tentative settlement of the lawsuit August 10, 2009. The final settlement was put in place October 2010. The settlement requires further actions, including a 45-day public involvement process, amending milestones in the Hanford TPA, and completing an Environmental Impact Statement by USDOE that includes limitations and exemptions on off-site waste importation at Hanford.

Tank Waste Cleanup

The cleanup of 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 has been retrieving radioactive wastes from failing and aging single shell storage tanks and placing the waste in interim, stable storage tanks for eventual treatment and storage.

Construction of a tank waste treatment facility by USDOE is approximately 45 percent complete. However, the construction schedule has been repeatedly delayed and a new enforceable schedule is included in the lawsuit settlement.

Continuing and Accelerating Hanford Cleanup Progress

Cleanup progress has started on major contaminated Hanford facilities. Ecology is working with the USDOE to continue seeking ways to maintain progress to stabilize and decommission these facilities to reduce hazards to workers and the environment. Progress must be maintained on issuing closure or final operating permits for waste treatment, storage, and disposal at the Hanford site.

The USDOE at Hanford received nearly two billion dollars in American Recovery and Reinvestment Act (ARRA) funding. Those funds are being used for a number of projects that will support reducing the contaminated Hanford "footprint." The projects include soil and groundwater cleanups; additional groundwater monitoring, characterization, and treatment; large nuclear facility decontamination and demolition; and upgrades to tank farm facilities, equipment, and infrastructure.

Protecting the Columbia River

Work must continue to clean up sites that could add to groundwater or river contamination, including removing decaying fuel rods from concrete storage areas located near the Columbia River. Groundwater cleanup, close monitoring of liquid waste discharges, and cleaning up contaminated soil must also continue.

Ecology, EPA, and the USDOE added new TPA milestones that provide the schedule for ground-water and soil cleanup along the Columbia River.

Decisions About Additional Waste Storage or Treatment at Hanford

Many recent and pending national decisions center on Hanford as a potential storage, treatment, and disposal site for not only wastes and materials generated on-site, but also for wastes from many other sites in the country. As a result of a settlement agreement, the USDOE currently cannot import

low-level mixed or transuranic wastes from other USDOE sites to Hanford. The settlement of the tank waste lawsuit extends this waste importation ban until the tank waste treatment facility is operational. At the same time, long-term plans for Hanford cleanup include shipping transuranic and high-level wastes, spent nuclear fuel, and surplus plutonium to other sites for disposal. Ecology is participating in national forums that deal with these issues to advise state policy makers on responses to these cleanup plans.

Activities, Results & Performance Measures

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 Nuclear Reservation. We do this by cleaning up contaminated sites from past activities. Radioactive and hazardous contaminants are removed, residual contaminants are contained and monitored, and natural resource damage mitigation on Hanford occurs.

Expected Results

- Public use of the air, soil, and water at Hanford is restored and human and environmental risks associated with past Hanford activities are removed or reduced.
- Continue cleanup of contaminated waste sites adjacent to the Columbia River.
- Begin cleanup on the Hanford Central Plateau.

Performance Measures

- Tons of radioactive and/or chemically contaminated soil and debris removed and securely disposed at Hanford.
- Gallons of groundwater contaminated by hexavalent chromium that is remediated at Hanford.
- Pounds of chromium removed from contaminated groundwater at Hanford.

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

Ecology oversees decommissioning the large, complex, and high risk facilities throughout the Hanford Nuclear Reservation, 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 also provides regulatory oversight of waste management activities at four facilities not managed by the USDOE (Energy Northwest, AREVA, Perma-Fix Northwest, and the U.S. Navy's Puget Sound Naval Shipyard).

Expected Results

All major facilities on the Hanford site are decontaminated and decommissioned, and either demolished or placed into a long-term safe storage configuration. This is accomplished through:

- Completing 60 percent of the 324 Building removal and remediation actions.
- Completing 65 percent of the decontamination and decommissioning effort at the Plutonium Finishing Plant.
- Completing 100 percent of the interim safe storage of the N Reactor 105-N/109-N Building.

Performance Measure

- Percent completion of the decontamination and decommission of the plutonium finishing plant on Hanford by 2016.

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 Nuclear Reservation. 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 immobilized high-level waste storage facility.

Expected Results

56 million gallons of high-level radioactive mixed waste from Hanford's interim storage tanks is retrieved and treated during the life of the tank treatment project. This is accomplished through:

- Continued construction of the Hanford Waste Treatment Plant at a rate that supports approved milestones, with completion of construction by 2019.

Performance Measure

- Percent of the Hanford Tank Waste Treatment Plant construction completed.

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 56 million gallons of high-level radioactive tank waste at the Hanford Nuclear Reservation. The Hanford Tank Waste Storage Project is focused on permitting the double-shelled tank waste storage system, removing liquid wastes from the single-shelled 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. This is accomplished through:

- Two single-shell tanks being emptied each year and waste stored safely through 2019.
- A permit issued for the double shell tank farms.
- A closure plan issued for the single shell tank farms.

Performance Measure

- Number of tanks containing radioactive hazardous waste emptied at Hanford's C-Tank Farm.

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 retrieval, treatment, and safe disposal of transuranic and high-level mixed wastes currently buried in shallow, unlined trenches.

Expected Results

Transuranic and mixed low-level waste is managed, retrieved, treated, processed, stored, and disposed in compliance with existing regulations to reduce risks posed to Hanford workers and the environment. This is accomplished through:

- Complete retrieval of contact-handled retrievably stored waste from the low-level burial grounds at Hanford.
- Completion of the commercial low-level radioactive waste site Model Toxics Control Act Feasibility Study and Cleanup Action Plan.

Performance Measure

- Amount of transuranic waste removed from the low level burial grounds at Hanford (cubic meters).

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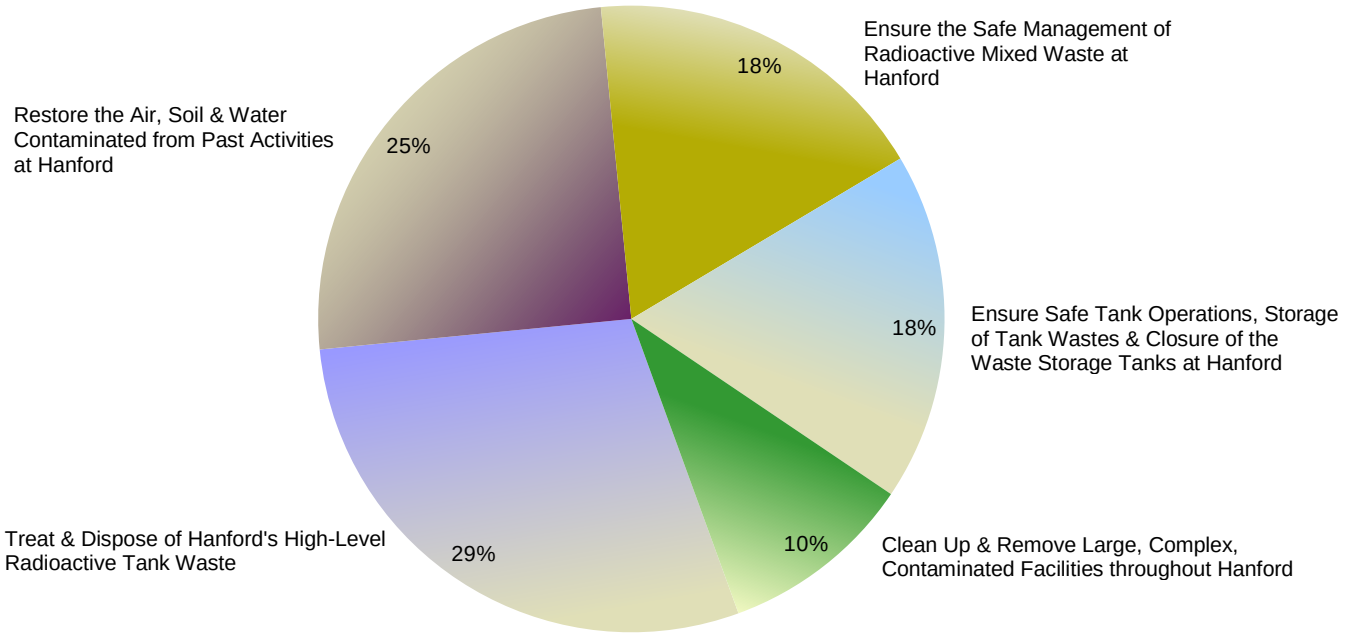
Nuclear Waste Program 2011-13 Biennium Budget
By Activities

Operating Budget = $17.3 Million; FTEs = 74.7



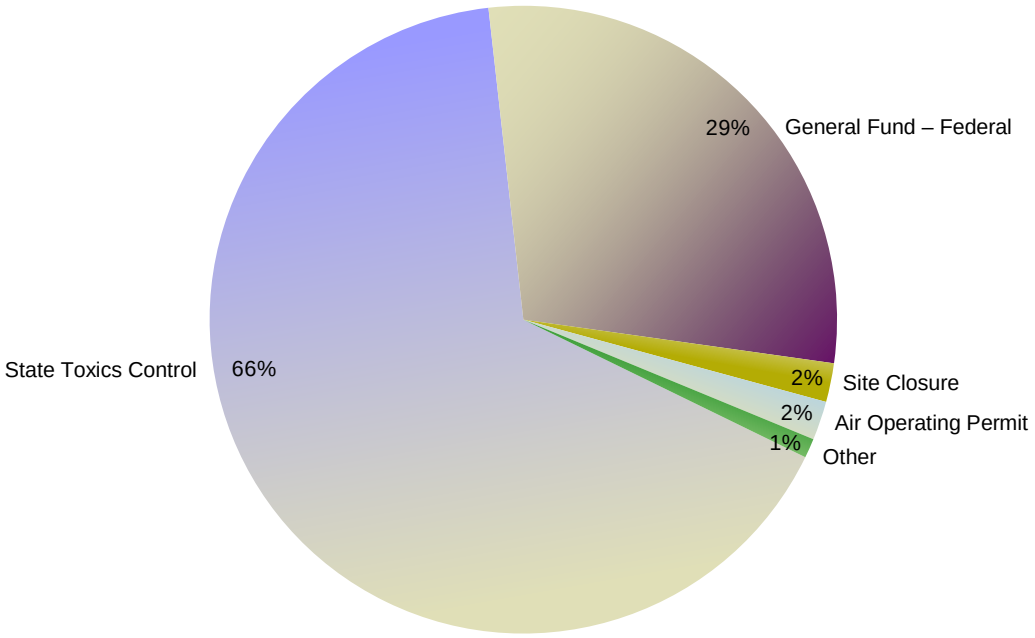
Activities	Dollars	FTEs
Treat & Dispose of Hanford's High-Level Radioactive Tank Waste (A016)	$5,004,061	23.7
Restore the Air, Soil & Water Contaminated from Past Activities at Hanford (A014)	4,432,544	14.7
Ensure the Safe Management of Radioactive Mixed Waste at Hanford (A018)	3,090,983	13.1
Ensure Safe Tank Operations, Storage of Tank Wastes & Closure of the Waste Storage Tanks at Hanford (A017)	3,065,942	14.6
Clean Up & Remove Large, Complex, Contaminated Facilities Throughout Hanford (A015)	1,715,831	8.6
Nuclear Waste Operating Budget Total	**$17,309,361**	**74.7**

Nuclear Waste Program 2011-13 Biennium Budget
By Fund Source

Operating Budget = $17.3 Million
Pie shown below is operating budget ONLY.

Capital Budget = $12.1 Million
Funded entirely by Site Closure Account.

FTEs = 74.7



Other = General Fund – Private/Local (0.95%), Water Quality Permit (0.58%), and General Fund – State (0.51%).

Operating Fund Sources	Amount	Uses
State Toxics Control (173)	$11,333,589	Oversee management of hazardous & radioactive mixed wastes on Hanford & other mixed waste facilities, early treatment of Hanford wastes, provide regulatory assistance to the USDOE and EPA & implement the provisions of the Hanford Federal Facility Agreement & Consent Order & the Hazardous Waste Management Act.
General Fund – Federal (001)	4,992,597	Oversee removal of radiological & chemical contaminants at Hanford, provide regulatory assistance to USDOE & EPA & implement the provisions of the Hanford Federal Facility Agreement & Consent Order.
Air Operating Permit (219)	356,921	Conduct permitting & compliance assurance activities for air emissions sources on the Hanford site.
Site Closure (125)	272,998	Disposal permit issuance & Northwest Interstate Compact low-level radioactive waste management policy oversight for commercial low-level radioactive waste disposal within the state (Hanford site).
General Fund – Private/Local (001)	163,854	All moneys except the $600 required for Ecology's annual prime lease payment to USDOE are passed through to Benton County.
Water Quality Permit (176)	101,163	Activities needed to maintain safe facilities for treating wastewater discharges at the Hanford site.

General Fund – State (001)	88,239	Regulation of air pollutants at new or modified Hanford facilities subject to the clean air act.
Operating Budget Total	**$17,309,361**	
Capital Fund Sources		
Site Closure	$12,052,000	Investigation, closure, & decommissioning of the Hanford low-level radioactive waste disposal facility.
Capital Budget Total	**$12,052,000**	
Nuclear Waste Operating & Capital Budget Total	**$29,361,361**	

Left to right are Julie Christian and Kevin Tyler of Clark County Environmental Services with Ecology's wetlands/shorelands specialist Mark Cline. The group is inspecting the Clark County Public Works wetland mitigation site at Hockinson Community Park.

Program Mission

The Shorelands and Environmental Assistance Program's mission is to work in partnership with communities to support healthy watersheds and promote statewide environmental interests.

Environmental Threats

Washington's quality of life is defined by its beautiful environment. Our state has an abundance of shorelines, rivers, streams, lakes, wetlands, floodplains, and marine waters. These natural treasures attract people to the state. At the same time, population growth and development can threaten the very resources that we all value.

In the last 100 years, many shorelines, floodplains, and wetland systems have been damaged or completely destroyed. The challenge facing our citizens and communities is to manage development for the 21st century, ensure the health of watersheds and adequate water supplies, and restore Puget Sound. As population growth continues to pressure remaining natural habitats, we must find more effective ways to preserve them and their connections to other functioning habitats.

Authorizing Laws

- *Federal Clean Water Act*
- *Federal Coastal Zone Management Act*
- *RCW 43.21C, State Environmental Policy Act (SEPA)*
- *RCW 43.42, Office of Regulatory Assistance*
- *RCW 43.143, Ocean Resource Management Act*
- *RCW 43.220, Washington Conservation Corps (WCC)*
- *RCW 78.56, Metals, Mining and Milling Act*
- *RCW 86.16, Floodplain Management Act*
- *RCW 86.26, State Participation in Flood Control Maintenance*
- *RCW 90.03.265 and 43.21a.690, Cost Reimbursement*
- *RCW 90.36A, Growth Management Act*
- *RCW 90.48, Water Pollution Control Act*
- *RCW 90.58, Shoreline Management Act*
- *RCW 90.71, Puget Sound Water Quality Program*
- *RCW 90.74, Aquatic Resources Mitigation*
- *RCW 90.82, Watershed Planning Act*
- *RCW 90.84, Wetlands Mitigation Banking*

Constituents/Interested Parties

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

Issues

Shoreline Master Program Updates

Shoreline Master Programs are our most important tool to protect and restore shorelines. Local governments and Ecology work in partnership to develop Shoreline Master Programs that include goals, policies, and regulations for managing shorelines. They help us protect and restore important habitats, keep water clean, protect homes and property from shoreline hazards, and provide opportunities for public access. All local governments with shorelines must update their Shoreline Master Programs by 2014.

The Washington State Legislature adopted a schedule and began providing funding for this in 2003. Ecology places a high priority on shoreline program updates and provides grants and technical support to communities throughout the state. In 2011, the Legislature provided a total of $7.5

million for pass-through grants to governments and a half-million dollars for Ecology staffing. To date, over three quarters of the updates are complete or underway.

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. Our state has lost more than one-third of its wetlands.

To stop this loss, laws require mitigation to replace lost wetlands and their functions. However, mitigation only works part of the time. Ecology organized the *Environmental Mitigation That Works* initiative to improve the success of wetland mitigation. Our priorities are:

- A compliance program to make sure the mitigation we approve is successful.
- Ensuring wetlands are protected and replaced by conditioning projects through water quality certifications.
- Support alternative mitigation approaches, such as wetland banking, in-lieu fees and advance mitigation, and provide templates, guidance, and training on these approaches.
- Provide technical training to communities.
- Assist local governments in managing wetlands through technical assistance on updated critical areas ordinances and on voluntary stewardship programs in agricultural areas.
- Protect important coastal wetlands through acquisition grant programs.

Protecting Puget Sound Habitat

Habitat protection is a priority for Puget Sound restoration. One-third of the Sound's shoreline has been altered by bulkheads, rip rap, or concrete walls. Many wetlands and floodplains have been lost to cutting, grading, and filling for homes, businesses, towns, cities, and transportation.

With another million people expected to move into the Puget Sound area by 2025, we must become more effective in protecting our shorelines and upland habitats. In this biennium, Ecology will help counties and cities update their rules that protect shorelines and other important habitats, such as Shoreline Master Programs and critical area ordinances. We will improve the effectiveness of wetland mitigation, and we will provide trainings and work in partnerships to promote appropriate development.

Protecting and Restoring Puget Sound Watersheds

Ecology received funding from EPA through the National Estuary Program to help implement priority work consistent with the 2020 Action Agenda for the protection and restoration of 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, in coordination with the Department of Commerce, is developing a six-year strategy to guide investments that will help protect and restore Puget Sound watersheds. The six-year strategy will outline three strategic areas of investment:

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

Climate Change and Preparing for Sea-Level Rise

One aspect of climate change is the anticipated rise in sea level. Nearly 40 communities along our 2,300 miles of shoreline will be affected by rising sea levels. Climate change is predicted to bring higher tides, stronger storms, bigger waves, increased flooding, heavier rains, smaller snow packs, and engulf low-lying shorelines.

Understanding and preparing for climate change is a strategic priority for Ecology. We are supporting local community planning for sea-level rise and flood protection. We will share technical guidance and provide financial help for local government planning through the Flood Control Assistance Account Program grants and Shoreline Master Program grants to support hazard assessments and prepare for sea-level rise. We will respond to Executive Order 09-05 by working with our local government partners to examine challenges and opportunities to prepare and adapt to sea-level rise.

Ocean and Coastal Health

Washington has two coasts with distinct issues, resources, communities, and needs: the outer coast and Puget Sound. While Puget Sound tends to have

greater problems with water pollution, stormwater runoff, and toxic sediments, our outer coast is not immune from troubling forces. On the outer coast, these forces include aquatic invasive species, toxic algal blooms that routinely close shellfish harvesting and threaten human health and wildlife, and shoreline erosion that threatens infrastructure and property.

Ecology will work with other agencies and stakeholders to improve coastal and ocean resource management, mostly on Washington's outer coast, through the State Ocean Caucus, Ocean Policy Advisory Group, and other regional and international partnerships. Through all of these partnerships, we will focus on:

- Improving basic research, monitoring, and education on our ocean resources.
- Advancing erosion and sediment management.
- Supporting development of sustainable coastal communities.
- Understanding potential impacts of new proposed ocean uses and developing appropriate strategies to manage these activities.
- Coordinating implementation of other recommendations in Washington's Ocean Action Plan.

Protecting Floodplain Resources

Ecology helps local governments and citizens with awareness and planning for flood hazards to improve public safety and prevent damages to property and public infrastructure. We also take part in floodplain management activities that protect the natural and beneficial functions of our floodplains. Floodplains provide many environmental benefits, including flood storage, groundwater recharge, and habitat for aquatic and terrestrial species. The Federal Emergency Management Agency (FEMA) has established minimum standards for the National Flood Insurance Program, and the state of Washington has adopted those standards.

In recent months, the National Marine Fisheries Service issued a biological opinion, and found that existing minimum standards have an adverse impact on endangered salmon and killer whales in the Puget Sound Region. We will be working with FEMA and the affected local governments to help communities adjust their floodplain management regulations to assure compliance with this opinion.

Activities, Results & Performance Measures

Protect and Manage Shorelines in Partnership with Local Governments

The Shoreline Management Act is a joint program between local and state governments for managing shorelines to provide habitat for fish and wildlife, and for minimizing flooding and property damage. Local governments develop and manage local Shoreline Master Programs.

Ecology provides support and oversight to local governments through:

- 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 resources are protected and the law is followed.

Ecology works with local governments on permit compliance by:

- Responding to public inquiries and complaints,
- Making field visits.
- Providing compliance-related technical assistance.
- Issuing notices of correction, orders, and penalties.

Expected Results

State shorelines 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 government are consistent with their Shoreline Master Programs.

Performance Measures

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

Protect Water Quality by Reviewing and Conditioning Construction Projects

The federal Clean Water Act and Coastal Zone Management Act set up water and coastal protection programs. Ecology reviews construction proposals that may impact streams, lakes, rivers, wetlands, shorelines, or marine waters. Ecology implements these laws in four ways: (1) offering technical assistance to applicants from the beginning to the end of the permit process; (2) providing applicants a joint multi-agency permit application; (3) coordinating with other regulatory agencies that have interests in proposals; and (4) making permit decisions that protect water, sediments, fish, and shellfish habitat. This allows Ecology to participate in federal permitting activities to ensure state water quality interests are identified 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, efficient, thorough, and consistent.
- Projects comply with permit conditions.

Performance Measures

- Number of days it takes to make a final decision on 401 water quality certifications.

Protect, Restore, and Manage Wetlands

The Water Pollution Control Act and Shoreline Management Act set frameworks for wetlands protection. Local governments write wetland protection and mitigation rules into local Shoreline Master Programs and critical area ordinances. Ecology provides support to local government and carries out independent wetland protection and restoration programs in the following ways:

- Providing technical assistance to local governments to implement wetland protection programs.
- Developing mitigation requirements for state water quality certifications that offset unavoidable impacts to wetlands.
- Inspecting, monitoring, and collecting data on wetlands and mitigation sites.
- Coordinating state policies, rules, and guidelines for wetland management, banking, protection, and conservation.
- Helping individuals and organizations create and maintain wetland conservation and stewardship programs.

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, replaced, 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

- Percent of mitigation sites inspected within 18 months after receiving as-built reports.
- Number of completed watershed characterizations.
- Percent of wetland banking certification documents reviewed within 30 days of receipt.

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

The Flood Plain Management Act sets up programs to reduce flood damage. Local governments develop and manage local floodplain restrictions, and Ecology provides support to local governments and carries out independent prevention and response programs through:

- Providing grants and technical help to local governments for flood management planning and flood reduction projects.
- Administering the National Flood Insurance Program, which helps over 250 cities and towns enrolled in this program.
- Doing outreach on recognizing and reducing potential flooding hazards.

In this role, Ecology makes regularly scheduled technical assistance visits to communities and

assesses local regulatory programs for compliance with state and federal requirements. 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 Measures

- Number of flood-prone communities receiving direct support on regulatory issues, flood hazard reduction, and the protection of floodplain functions and values.

Provide Technical Assistance on State Environmental Policy Act Review

The State Environmental Policy Act (SEPA) sets up a joint program between local and state governments designed to ensure environmental impacts from private or public actions are considered by government officials. Local and state governments review project impacts and determine how projects can be done with minimal impacts. Ecology provides technical support and carries out independent actions through:

- Conducting training and giving technical assistance to local and state government.
- Maintaining the SEPA register, which catalogs SEPA projects across the state.
- Coordinating the SEPA process when Ecology is the decision making agency.

SEPA provides an opportunity for local citizen involvement in the environmental review process and provides developers an opportunity to identify mitigation opportunities that help overall project approval and minimize development costs.

Expected Results

- The public has input into projects that may have environmental impacts.
- 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 SEPA workshops provided.
- Percent of SEPA workshop participants who said they intend to apply what they learned in their work.

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

The Coastal Zone Management Act sets up estuarine reserves that are jointly managed by state and federal governments. The Padilla Bay National Estuarine Research Reserve is one of 27 national reserves established to protect estuaries for research and education through:

- Operating the Breazeale Interpretive Center and research facility.
- Providing classes for teachers, students, and adults on Puget Sound ecology, watersheds, wetlands and coastal management.
- Presenting technical and professional trainings and workshops.
- Conducting scientific research.

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.

Expected Results

The Padilla Bay Reserve is managed and maintained in a cost-efficient and effective way to provide public education, training, and scientific research and monitoring.

- Students, teachers, professionals, and researchers participate in education and training programs.
- Coastal ecosystem research is carried out and shared with government and academic organizations.
- Coastal and land-use managers and planners are trained to carry out environmental policies and rules in Western Washington.
- Volunteers and professionals carry out Puget Sound restoration activities, including derelict

gear removal, marine debris collection, and habitat enhancements.

Performance Measures

- Number of people participating in Puget Sound education and training programs at the Padilla Bay Reserve.
- Percent of Puget Sound and coastal training workshop participants who said they intend to apply what they learned in their work.
- Acres of Puget Sound cleaned of derelict fishing nets.

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

The Washington Conservation Corps (WCC) was established in 1983 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). Ecology manages the WCC program through:

- Creating partnerships with federal, state, and local agencies, private entities, and nonprofit groups to complete conservation projects (these include stream and riparian restoration, wetlands restoration and enhancement, soil stabilization, other forest restoration activities, fencing, and trail work).
- Providing emergency response and hazard mitigation services to local communities.

Expected Results

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

Performance Measure

- 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.

Provide Streamlined Project Permitting for Transportation Projects

A contract between Ecology and the Washington State Department of Transportation (WSDOT) is set up to support environmental permitting for state transportation projects. WSDOT submits transportation project applications and documents, and a dedicated Ecology team facilitates the permit process. This expedited permit review process was designed to address traffic congestion and allow businesses to efficiently transport products in Washington.

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 Measures

- Percent of reviews and decisions made within agreed upon timeframes for WSDOT applications or other documents.

Provide Regulatory Assistance for Significant Projects and Small Businesses

A contract between Ecology and the Governor's Office of Regulatory Assistance (ORA) is set up to support permit assistance services. ORA provides funding and Ecology provides staff and direct services to businesses and the public through:

- Operating a Service Center for call-in and walk-in permit information.
- Developing and maintaining an online permit assistance resource center.
- Offering regional case managers for more complex and complicated projects.

Expected Results

- People and businesses who contact the Office of Regulatory Assistance receive permit information.
- Helpful information is available to applicants on environmental permits such as web-based tools, directories, fact sheets, guidance, and other materials.

Performance Measure

- Number of applicants and customers provided permit assistance by the Office of Regulatory Assistance.

Support Watershed-Based Water Supply and Resource Stewardship

Ecology supports watershed-based management of water for people, farms, and fish. We provide technical support, staff support, scientific expertise, and financial assistance to help local groups design and implement integrated watershed management and locally-tailored water supply solutions. Work in this activity focuses on improving long-term reliability and availability of water for in-stream and out-of-stream needs per locally developed watershed plans and activities.

Expected Results

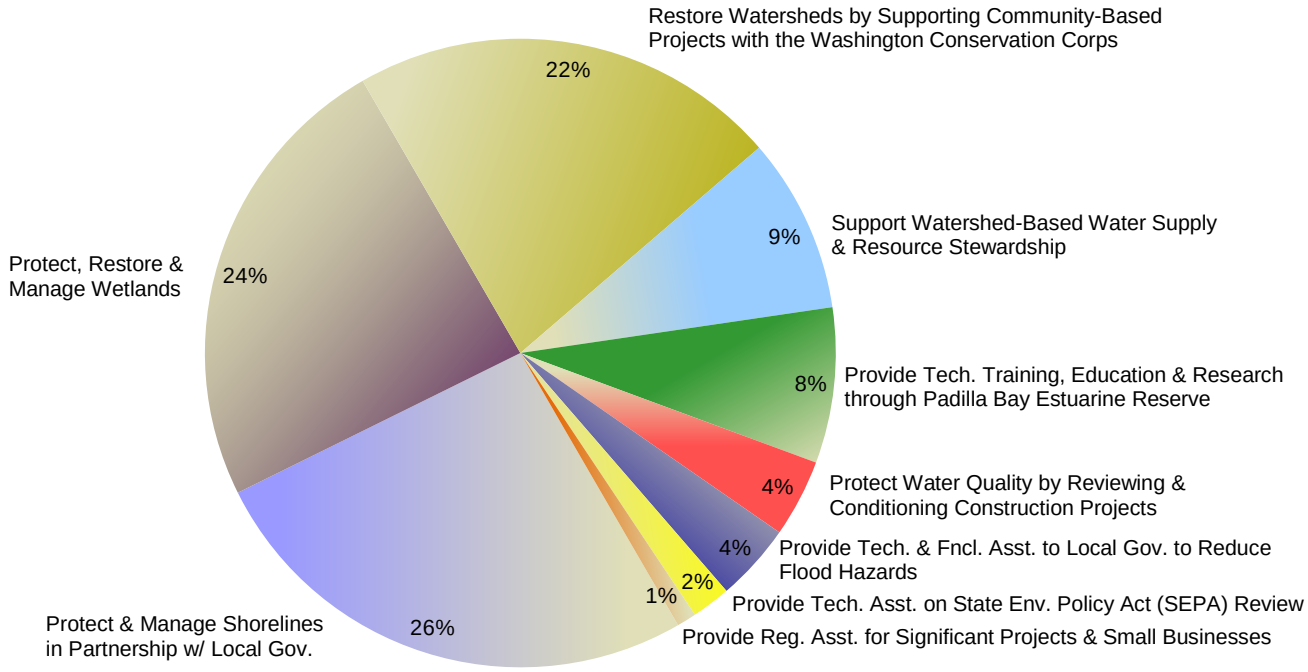
- Water supply solutions are developed and implemented in water-short areas of the state to provide water for people, farms, and fish.
- Targeted technical and financial assistance is provided for plan implementation and updates where community/watershed-based groups are active partners in identifying in-stream and out-of-stream water availability solutions and projects.

Performance Measure

- Number of watersheds in the implementation phase of watershed planning.

Shorelands & Environmental Assistance Program 2011-13 Biennium Budget By Activities

Operating Budget = $56.8 Million; FTEs = 161.0



Provide Streamlined Project Permitting for Transportation Projects (0.22%) not shown in operating budget pie above (too small for display).

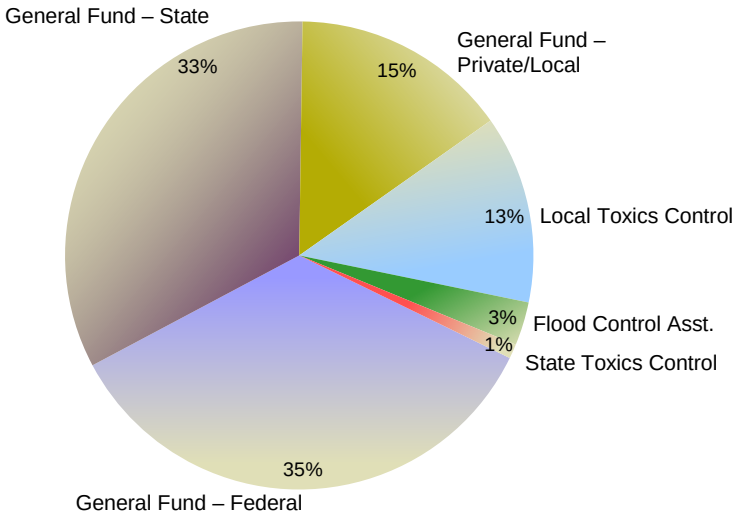
Activities	Dollars	FTEs
Protect & Manage Shorelines in Partnership with Local Governments (A036)	$14,551,825	28.5
Protect, Restore & Manage Wetlands (A038)	13,686,179	25.4
Restore Watersheds by Supporting Community-Based Projects with the Washington Conservation Corps (A056)	12,481,009	55.4
Support Watershed-Based Water Supply & Resource Stewardship (A067)	5,348,826	6.3
Provide Technical Training, Education & Research through Padilla Bay Estuarine Reserve (A042)	4,293,673	17.3
Protect Water Quality by Reviewing & Conditioning Construction Projects (A037)	2,277,201	11.1
Provide Technical & Financial Assistance to Local Governments to Reduce Flood Hazards (A040)	2,189,487	7.4
Provide Technical Assistance on State Environmental Policy Act (SEPA) Review (A041)	1,197,742	5.1
Provide Regulatory Assistance for Significant Projects & Small Businesses (A060)	630,889	3.8
Provide Streamlined Project Permitting for Transportation Projects (A058)	124,700	0.7
Shorelands & Environmental Assistance Operating Budget Total	**$56,781,531**	**161.0**

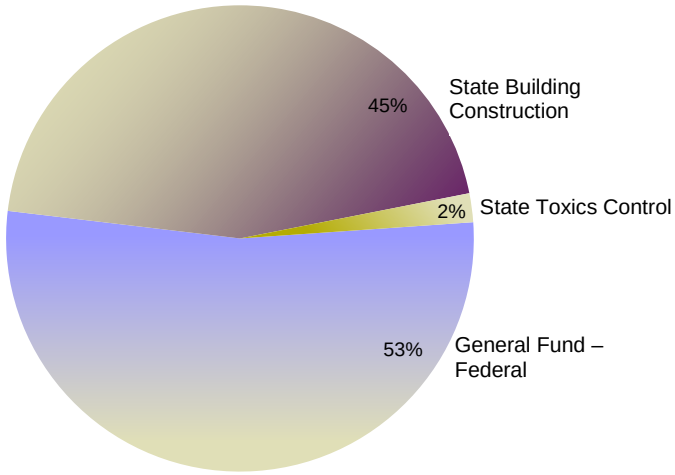
Shorelands & Environmental Assistance Program 2011-13 Biennium Budget By Fund Source

Operating Budget = $56.8 Million

Capital Budget = $28.8 Million

FTEs = 161.0





Operating Fund Sources	Amount	Uses
General Fund – Federal (001)	$19,772,885	Primary grant – National Oceanic and Atmospheric Administration Coastal Zone Management. Shoreline planning, implementation, enforcement, water quality certifications, & technical/financial assistance to local governments. U.S. EPA grants for wetlands & 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.
General Fund – State (001)	18,856,789	Shoreline management planning, implementation, enforcement, and technical assistance & planning grants to local governments. Wetlands Protection & Puget Sound Agenda implementation requirements. Match for federal Coastal Zone Management & wetlands grants. State Environmental Policy Act reviews. Office of Regulatory Assistance. Washington State Department of Transportation permitting. Water quality certifications. Ocean policy review. Padilla Bay. Watershed implementation grants. Wetlands banking & environmental mitigation. Wetland technical assistance.
General Fund – Private/Local (001)	8,324,695	Coastal Erosion. Permit & project reviews. Padilla Bay. Washington Conservation Corps.
Local Toxics Control (174)	7,500,000	Updating local master shoreline programs. Funding provided to speed up completion of Puget Sound Shoreline Master Program updates.
Flood Control Assistance (02P)	1,698,923	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.

State Toxics Control (173)	628,239	Water quality certifications. Dredging. Staff for updating local master shoreline programs.
Operating Budget Total	**$56,781,531**	
Capital Fund Sources		
General Fund – Federal (001)	$15,167,213	Brazeale Interpretive Center, Padilla Bay Boat Shed. Federal grant awards for coastal wetland acquisitions (funds passed through to local entities).
State Building Construction (057)	13,050,984	Horseshoe Bend Levy Repair, King Co. Fire Protection District Flood Control, Flood Damage Grants.
State Toxics Control (173)	552,000	Puget Sound cleanups. Restoration work including creosoted debris removal, stream fencing, plantings.
Capital Budget Total	**$28,770,197**	
Shorelands & Env. Assistance Operating & Capital Budget Total	**$85,551,728**	

Ecology's spill responder Shannon Cline works cleanup of a sunken fishing vessel in Squalicum Harbor.

Program Mission

The mission of the Spill Prevention, Preparedness and Response Program (also known as the Spills Program) is to protect Washington's environment, public health, safety and economy through a comprehensive regulatory and technical assistance program. The program focuses on preventing oil spills to Washington's waters and land, as well as planning for and delivering a rapid, aggressive and well coordinated response to oil and hazardous substance spills wherever they occur.

Environmental Threats

Over 20 billion gallons of oil and hazardous chemicals are transported through Washington State each year by ship, barge, pipeline, rail and road. Human error and natural calamities can all lead to spills and toxic release with unintended and potentially disastrous consequences. Oil and chemical spills can threaten some of Washington's most productive and valuable ecosystems. These incidents can kill fish, birds, and marine mammals. They can also contaminate beaches, shellfish, and groundwater. All spills—whether on land or water—can threaten public health, safety, the environment, and 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*
- *RCW 70.105, Hazardous Waste Management Act*
- *RCW 70.105D, Model Toxics Control Act*
- *RCW 70.136, Hazardous Materials Incidents Act*
- *RCW 82.23B, Oil Spill Response Tax*
- *RCW 88.40, Transport of Petroleum Products – Financial Responsibility*
- *RCW 88.40, Transport of Petroleum Products – Financial Responsibility*
- *RCW 88.46, Vessel Oil Spill Prevention and Response*
- *RCW 90.48, Water Pollution Control (includes early legislation from the 1970s)*
- *RCW 90.56, 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. Corps of Engineers, and local emergency management agencies.*
- *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, and oil trucking companies.*
- *Spill response cooperatives and contractors.*
- *The Puget Sound Partnership, environmental organizations, the general public, and others.*

Issues

Ecology is an adaptive organization that takes pride in being responsive to legislative direction,

customer needs, and in responding rapidly and aggressively to oil spill, hazardous material incidents and natural disasters. In working to fulfill the following commitments, we will continue to align policies and procedures to ensure efficient and effective service delivery within the current economic and budget restriction environment.

The initiatives described in this document are in addition to our essential service delivery of vessel and oil transfer inspections, plan review and approvals, contingency plan drills, incident response, and environmental restoration that are delivered 24/7 from field offices. In delivering these services, Ecology plays a key role in minimizing the long-term release of toxics into the environment and helping to protect the waters of the state. In meeting these many challenges, we will focus on the following strategic initiatives during the 2011-2013 biennium:

- Improve marine safety by emphasizing a risk based approach.
- Develop the capability to provide the best achievable protection during response to major spills.
- Continue to provide a rapid, aggressive, and well-coordinated response to spills and significant incidents.

The Spills Program will pursue these strategic initiatives within its current level of funding.

Improving Marine Safety by Emphasizing a Risk-Based Approach

A renewed emphasis will be placed on marine risk-based assessments and management activities to protect our environment, economy, and quality of life. The risk assessment initiative will eventually culminate in the identification of appropriate risk mitigation measures. Some lower cost risk management measures could be implemented during the current biennium. This work will entail effort on several levels. Ecology will:

- Consider findings of recent vessel risk assessments and participate or lead additional assessments for system-wide improvements to waterways management system. From these findings and other assessments, Ecology will work with U.S. Coast Guard and Canadian marine safety elements to strengthen marine safety standards within shared waters, as appropriate.
- Continue to track the large changes in marine traffic in the North Puget Sound area as a result of increased transport of crude oil from Alberta through our state's waters and to our refineries, and projected significant growth in cargo vessel traffic. This vessel traffic information will be compiled and analyzed along with data on vessel incidents and spills.
- Implement the vessel emergency notification requirements in the 2011 Legislature's House Bill 1186 by:
  – Continuing to assess and review responses to each vessel emergency with the U.S. Coast Guard to identify opportunities for improved risk mitigation, including increased tug escorting, restricting vessel entries or movements to limit threats to U.S. waters.
  – Monitoring the effectiveness and use of emergency towing in response to vessel emergencies. This information may result in development of new recommendations.
  – Approving changes to ship oil spill contingency plans and adopting new internal procedures for managing these incidents to respond aggressively before spills occur.
- Maintain emphasis on prevention performance measures to evaluate trends and adjust various prevention inspection priorities accordingly. Ensure policy and procedures for inspections implement U.S. Coast Guard/Ecology protocols, training, and communication goals.
- Fulfill the promise of a strong collaborative partnership with the U.S. Coast Guard by updating the state's cooperative partnership agreements and working to ensure they are fully implemented.

Developing the Capability to Provide the Best Achievable Protection During Response to Major Spills

The public and elected officials expect the government and private sectors to carry out a well coordinated, rapid, and aggressive response when significant incidents and spills occur. The recent BP oil spill in the Gulf of Mexico in 2010 offered many lessons learned that are applicable here in Washington, many of which focus on improving preparedness planning.

In applying these lessons learned, in 2011 the Legislature passed House Bill 1186, that helps to position the state now and into the future for continuous improvement in preparedness planning and best achievable protection for state waters. Ecology will:

- Complete rulemaking to implement HB 1186 by December 2012 to revise vessel planning standards to incorporate best achievable protection through improved technology, staffing, training, and operational methods.
- Revise rules to establish a vessel of opportunity program to assist with oil spill response activities, including on-water oil recovery in the near-shore environment and the placement of oil spill containment booms to protect sensitive habitats.
- Work under the area plan to continue developing a volunteer management system that includes addressing pre-trained and convergent volunteers.
- Continue to systematically verify, inspect, and test response equipment around the state to ensure equipment is ready for a rapid deployment during incidents.
- Reduce the number of industry self certification of large tabletop drills by increasing the number of Ecology participation and evaluation of tabletop drills.
- Continue to do outreach and education to local governments and tribal communities before and during spills and incidents.

Continue to Ensure Responses to Spills and Incidents are Rapid, Aggressive, and Well Coordinated

Ecology is responsible for rapidly responding to and cleaning up oil spills, hazardous material incidents, methamphetamine drug labs, and helping other "first response" organizations. Ecology will:

- Deliver 24-hour-a-day, statewide hazmat response services from field offices.
- Work closely with local governments, tribes, and other public entities that have spill response and safety equipment “caches” to enhance the rapid initial containment of oil spills. This system is intended as a first response capability to contain oil until a private contractor and state response personnel are able to travel to the scene of the pollution incident.
- Build partnerships with local government, industry, and the public to provide rapid reporting of releases and provide rapid, independent verification of the spill incident.
- Clean up methamphetamine labs in coordination with local, state, and federal law enforcement agencies.
- Initiate enforcement actions when there are violations related to oil and hazardous material spills.

Strengthen Delivery of Public Education, Outreach and Technical Assistance Services

Ecology, along with our other local, state, federal and multi-state jurisdictions partners, is committed to expanding and maximizing outreach and education efforts. To help improve public education and technical assistance, Ecology will:

- Expand efforts to disseminate the technical findings from in-depth casualty and oil spill investigations to applicable industries.
- Expand field visits to ports and marinas statewide, and increase participation in the Clean Marina Program.
- Reinstitute a spill prevention campaign to include the commercial fishing fleet’s preparation for seasonal departure to Alaskan fishing grounds.
- Improve use of the Spills Program’s website and social networking sites to provide information during spill incidents to interested stakeholders and the public.
- Develop and maintain a website for volunteer registration and management (pending additional funding).

Activities, Results & Performance Measures

Prepare for Aggressive Response to Oil and Hazardous Material Incidents

Large commercial vessels and oil handling facilities operators are required to maintain state-approved oil spill contingency plans to ensure they can rapidly and effectively respond to major oil spills. State planning standards ensure equipment and response personnel are strategically staged

throughout the state. This work is carried out through staff review and approval of contingency plans to ensure plan holders and spill response contractors maintain readiness. Ecology also conducts scheduled and unannounced drills, partners with other agencies to maintain a regional contingency plan that guides how spills are managed in the Northwest, and develops geographic response plans in consultation with other natural resource experts and communities.

Expected Results

- Ecology and the regulated community are fully prepared to promptly respond to oil spills and ensure damages from spills are minimized.
- Compliance with the industry sponsored Neah Bay response tug is documented in approved vessel contingency plans.
- Four Geographic Response Plan chapters are updated.
- The ongoing maintenance of response equipment is documented by industry and records verified by Ecology.
- Ecology targets oil spill related outreach efforts to local governments in coastal communities.

Performance Measure

- Percent of industry and privately-owned response equipment inspected, deployed, and/or verified.

Prevent Oil Spills from Vessels and Oil Handling Facilities

Ecology works with the regulated community and others to minimize the environmental threat of oil spills from vessels and oil handling facilities by focusing on human procedural and organizational factors. This work is done through the following core activities:

- Inspecting facilities vessels and monitoring oil handling facility transfers.
- Boarding vessels for educational and compliance purposes.
- Overseeing oil transfer operations.
- Requiring and reviewing operations manuals and prevention plans.
- Overseeing the implementation of industry funded Neah Bay response tug to ships in difficulty.
- Helping and recognizing oil tanker and barge companies for achieving best achievable protection.
- Investigating near-miss and actual accidents to identify new prevention strategies.

Expected Results

- Strive to achieve zero oil spills from vessels and oil handling facilities.
- Minimize or prevent spills through risk management and targeted inspections.
- Reduced number of oil spills entering surface waters, particularly from marine sources.
- Reduced total volume of oil entering surface waters to less than one gallon for each 100 million gallons transferred over water.
- Reduced percent of vessel and oil transfer accidents resulting in or potentially leading to spills by (1) boarding and inspecting targeted high priority vessels and facility operations; and (2) Neah Bay rescue tug helping vessels as needed.
- Increased tanker and tank barge enrollment in the Exceptional Compliance Program (also known as ECOPRO) focused on improved vessel safety and environmentally secure operations.
- Reduced incidence of intentional waste oil discharges at sea from vessels.

Performance Measures

- Number of oil spills to surface waters from all sources.
- Total volume of oil spilled to surface waters from all sources.
- Percent of potential high risk vessels boarded and inspected.
- Gallons of oil spilled to surface waters during oil transfers for every 100 million gallons of oil transferred.
- Percent of regulated marine oil transfer operations inspected.

Rapidly Respond to and Clean Up Oil and Hazardous Material Spills

Oil and hazardous materials spills present a danger to human health and the environment. Ecology is responsible for rapidly responding to and overseeing the cleanup of oil spills, hazardous material incidents, methamphetamine drug labs, and

helping other "first response" organizations during Weapons of Mass Destruction (WMD) incidents. This work is done through the following core activities:

- 24-hour-a-day, statewide response capability from field offices.
- Coordination with local, state, and federal law enforcement agencies for methamphetamine drug lab cleanup.
- Compliance actions for violations related to oil and hazardous material spills.

Expected Results

- Oil spills, chemical spills, and methamphetamine labs are responded to and cleaned up rapidly to protect public health, natural resources, and property.
- Spill response capability is maintained 24 hours a day and seven days a week throughout the state.
- All oil spills are responded to within 24 hours from the time they are reported.
- Approximately 3,800 annual spill reports are managed.

Performance Measure

- Percent of reported oil and hazardous material spill incidents that receive field responses.

Restore Public Natural Resources Damaged by Oil Spills

Ecology leads a multi-natural resource agency trustee committee to assess damages to publicly-owned natural resources from oil spills. This work is done through the following core activities:

- Assessing the monetary value of damaged natural resources.
- Seeking fair compensation from the responsible parties.
- Chairing the Coastal Protection Committee to ensure the money collected is used for projects to restore the environmental damage.
- Conducting site follow-up visits to ensure accountability of project success after the project is completed.

Expected Results

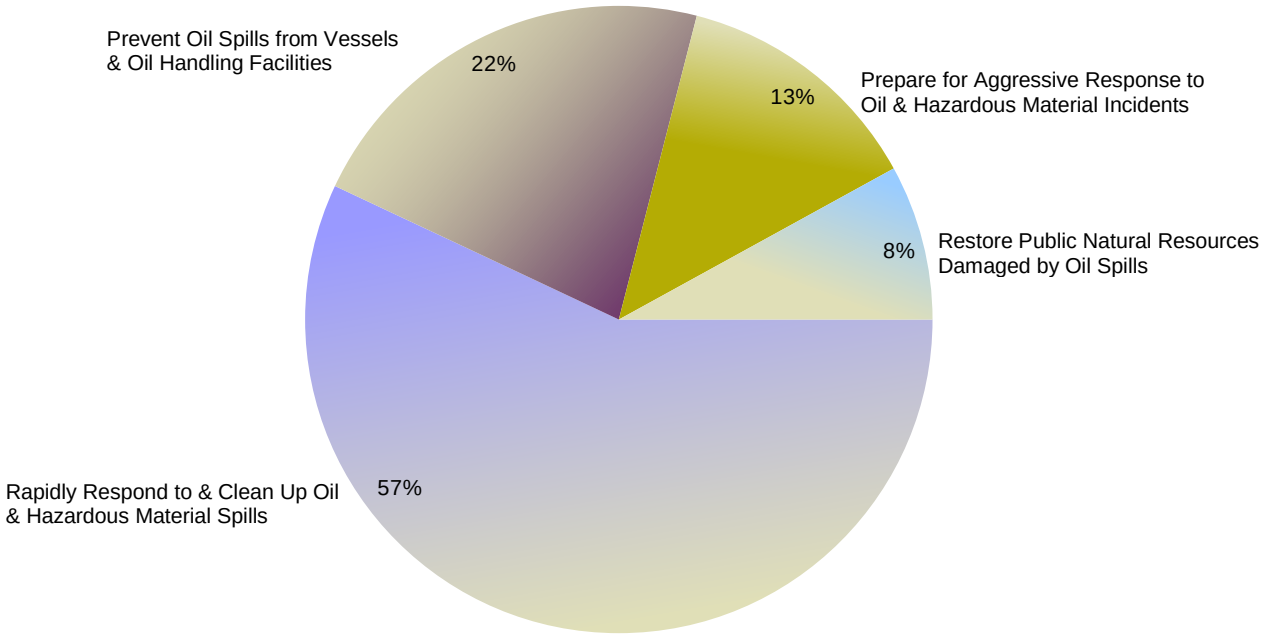
- The environmental impacts to publicly-owned natural resources from oil spills are partially mitigated (compensated for) using damage assessment funding.
- Natural resource damage assessment is done on 100 percent of oil spills where 25 or more gallons reach surface waters.
- Priority wildlife habitat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

Performance Measure

- Percent of completed restoration projects that meet plan specifications.

Spill Prevention, Preparedness & Response Program 2011-13 Biennium Budget By Activities

Operating Budget = $26.1 Million; FTEs = 71.3

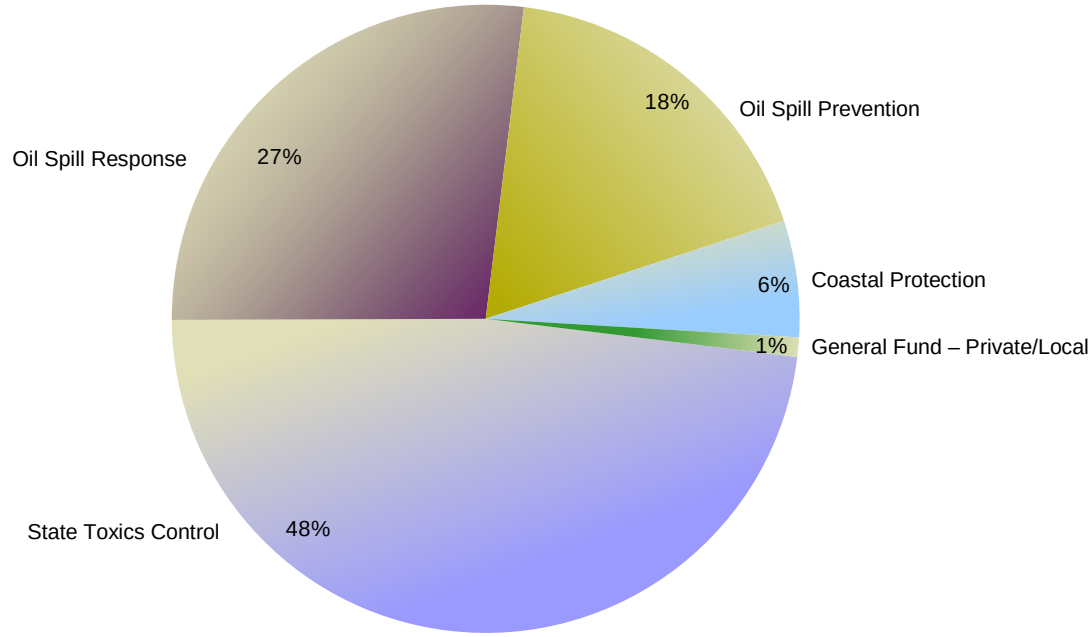


Activities	Dollars	FTEs
Rapidly Respond to & Clean Up Oil & Hazardous Material Spills (A054)	$14,861,470	31.0
Prevent Oil Spills from Vessels & Oil Handling Facilities (A033)	5,776,469	23.8
Prepare for Aggressive Response to Oil & Hazardous Material Incidents (A030)	3,414,079	14.2
Restore Public Natural Resources Damaged by Oil Spills (A055)	2,040,548	2.3
Spill Prevention, Preparedness & Response Operating Budget Total	**$26,092,566**	**71.3**

Spill Prevention, Preparedness & Response Program 2011-13 Biennium Budget By Fund Source

Operating Budget = $26.1 Million **No Capital Budget**

FTEs = 71.3



Operating Fund Sources	Amount	Uses
State Toxics Control (173)	$12,386,180	Hazardous material & oil spill response work including drug lab clean up.
Oil Spill Response (223)	7,076,000	Oil spill cleanup where state response costs are expected to exceed $50,000.
Oil Spill Prevention (217)	4,736,516	Oil spill prevention, preparedness, & response work.
Coastal Protection (408)	1,556,000	Restoration of natural resources damaged by oil spills & non-personnel related oil projects, research, & studies.
General Fund – Private/Local (001)	337,870	British Columbia & Pacific States oil spill task force.
Operating Budget Total	**$26,092,566**	
Spill Prev., Prep. & Resp. Operating & Capital Budget Total	**$26,092,566**	

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Crews remove the coffer dam after finishing cleanup work at the Skykomish cleanup site.

Program Mission

The mission of the Toxics Cleanup Program is to remove and keep contaminants out of the environment.

Environmental Threats

Ecology has identified nearly 11,600 toxics contaminated sites since the mid-1980s. Over 6,500 of these sites resulted from underground storage tanks leaking contents into the environment and contaminating the soil or groundwater. Of the 11,589 contaminated sites, 56 percent have been reported cleaned up or require no further cleanup action and 27 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

- *RCW 70.105D, Model Toxics Control Act*
- *RCW 90.48, Water Pollution Control Act*
- *RCW 90.71, Puget Sound Water Quality Protection*
- *RCW 90.76, 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.*
- *Owners of contaminated sites.*
- *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

Puget Sound Cleanups

We have focused efforts on ranking and prioritizing Puget Sound sites waiting to be cleaned up, taken on-the-ground actions to speed up cleanups, and are

further integrating restoration plans into cleanup efforts. Ecology defines Puget Sound sites as those sites within one-half mile of the Sound.

Ecology is using a combination of strategies to rank and prioritize, including a focus on "aquatic pairs." These are contaminated sites on or in the Sound that are at risk of recontamination from an upland source. These pairs have been prioritized and evaluated for risk.

We are coordinating with Ecology's Water Quality Program on upland source control, and with the Department of Natural Resources on contaminated aquatic site cleanup and source control to restore natural resources, including geoducks and other shellfish and habitat. We are working with the Puget Sound Partnership to integrate our priority measures into their Action Agenda. We are also ensuring priority is given to those publicly-funded cleanups in the Puget Sound area that support the Action Agenda.

Managing Capital

The challenge for the Toxics Cleanup Program this biennium is maintaining site cleanup momentum for local government cleanups. The funding for local government cleanup grants has continued to drop from the 2007-09 peak. This limits the ability of the program to take on additional cleanup work, though the local government need for these grants continues to grow.

The good news is the addition of funds for schools and orphaned and abandoned sites in eastern Washington. Also new this biennium is the release of funds from the Asarco Bankruptcy Settlement. This funding will allow continuation of cleanup work at schools and daycares impacted by the Tacoma Smelter Plume, residential yards impacted by the Everett site, as well as mining operations in central and eastern Washington.

Voluntary Cleanup Program Use Continues to Grow

The Voluntary Cleanup Program helps site owners voluntarily clean up their contaminated sites. This program provides property owners an opportunity to engage with Ecology in cleaning up their contaminated site. Completing cleanup of contaminated sites not only provides protection for human health and the environment, it also makes it easier for property owners during property transactions.

The interest in the Voluntary Cleanup Program continues to create a workload challenge for Ecology. A large number of sites shift to voluntary cleanups when possible. These cleanups are faster than non-voluntary sites, as they are generally less complex cleanups, though some may involve multiple properties.

Rule Revisions are Underway

We began working on revisions to the Model Toxics Control Act (MTCA) Cleanup Regulation and the Sediment Management Standards (SMS) rules in 2009. The MTCA rule revisions were put on hold in December 2010 in response to the Governor's rule moratorium. However, we are continuing to work on revising the SMS rule. We are well into the process of stakeholder engagement and dialogue. We plan to adopt final rule revisions by the end of 2012. There are four main rulemaking topics: (1) update the rule framework for making decisions on sediment cleanup standards and sediment cleanup actions based on human health protection; (2) update the fish and shellfish consumption rate used to support cleanup decisions; (3) establish chemical and biological criteria to support cleanup decisions at freshwater sites; and (4) clarify policies for coordinating cleanup actions and source control measures.

We are also revising the Underground Storage Tank (UST) rule. The UST rule revision process will be completed in two phases. In the first phase, which we expect to complete by August 2012, we are making limited changes to comply with the Federal Energy Act and to address financial responsibility issues. In the second phase, we plan to incorporate the new federal rule requirements, which EPA is currently developing, and make additional corrections to the state rule. We anticipate that much broader changes will be made during this second phase. To maintain state program approval, we will have three years to incorporate the new federal rule requirements after they are adopted.

We plan to resume efforts to revise the MTCA rule once we have finished the SMS rule revisions. Changes are needed to make sure cleanup standards stay current with changes in science and/or amendments to the MTCA law. We also intend to

look at the Remedial Action Grant rule for some limited revisions.

Implementing the Asarco Bankruptcy Settlement

Large areas of western Washington soils are contaminated with low to moderate levels of arsenic and lead from the Asarco smelters in the Everett and Tacoma areas. Asarco filed for Chapter 11 bankruptcy, the largest environmental bankruptcy ever filed in the United States. Washington received a settlement in late 2009 to address the smelter contamination. The settlement also provided funds for cleanup at mine sites in northwestern and eastern Washington and for the B&L Woodwaste site.

Ecology has developed a ten-year plan to address Tacoma Smelter Plume contamination impacting over 1,000 square miles. In October 2011, the plan went out for public comment. Ecology will design and begin to implement a new residential yard sampling and cleanup program. It targets areas where arsenic is over 100 ppm. In 2012, we will identify and assess private multi-family housing. We will also begin sampling and cleanup of single family homes.

Ecology will encourage local permit offices to require sampling and cleanup during development by offering new model remedies, guidance, and technical assistance. We will also continue the Soil Safety Program. This biennium, the Toxics Cleanup Program will focus on sampling and cleanup for existing parks and camps, in addition to new childcares and schools. Broad-based and targeted outreach to residents in Pierce, King, and Thurston counties will also continue.

Ecology also developed a ten-year plan to address Everett Smelter contamination and five mine sites in central and eastern Washington. In the next biennium, Ecology will continue sampling and cleaning up contaminated soil in residential areas. We are continuing, and expanding, outreach and education efforts in the residential cleanup area and the surrounding community. Cleanup plans are being developed for the most contaminated part of the industrial area adjacent to the Snohomish River. Groundwater quality data is being updated.

Sampling will begin and be completed in the mining areas in northwest and eastern Washington. Ecology is continuing to manage cleanup activities at the B&L Woodwaste site, including treating arsenic-contaminated groundwater near the landfill.

Lake Roosevelt/Upper Columbia River

The Upper Columbia River site extends over a distance of approximately 151 miles—from the U.S./Canadian border, downstream to the Grand Coulee Dam. Lake Roosevelt, created by the construction of Grand Coulee Dam, is the largest reservoir, by volume, in the state of Washington, and spans a length of approximately 133 miles. Metals such as zinc, cadmium, lead, copper, and mercury are present in the Upper Columbia River and Lake Roosevelt sediments and beaches at elevated concentrations. Studies also show metals such as mercury and arsenic at elevated levels in fish. Upland soils and sediments also are documented at elevated concentrations due to historical smelter emissions. The primary source of metals is directly attributed to the Teck Resources, Limited (Teck) lead-zinc smelting complex in Trail, British Columbia.

In 2003, the U.S. EPA issued a Unilateral Administrative Order to Teck requiring the company to study the extent of contamination in the reservoir and river between Grand Coulee Dam and the international border. Teck did not comply. The Colville Confederated Tribes filed a citizens' suit, later joined by the state of Washington, to compel them to comply. In 2006, EPA and Teck Cominco entered into a settlement contract in which Teck agreed to complete a remedial investigation and feasibility study (RI/FS). Ecology, tribal and federal government counterparts are presently advising EPA in their oversight of the study.

Ecology continues to advance its joint-litigation partnering with the Confederated Tribes of the Colville Reservation to demonstrate Teck liability at the Upper Columbia River site. The revised trial date is set for September 2012. Teck wastes continue to be present and redistributed throughout the site, polluting the Upper Columbia River site. Affirming Teck's liability will establish the foundation for properly achieving the cleanup and natural resource restoration of the Upper Columbia River.

In addition to the litigation and participation in the RI/FS, Ecology is representing the state's interest on the Upper Columbia River/Lake

Roosevelt Natural Resource Trustee Council (Council). Other Council members include the Confederated Tribes of the Colville Reservation, the Spokane Tribe of Indians, and the United States Department of the Interior. The Council's primary objective is to determine what natural resources have been injured and ensure that the injured resources are restored. The Council is initiating injury assessment planning.

Safe Soils Program

For sites outside of the Tacoma Smelter Plume but impacted by lead and arsenic, the Safe Soils Program was created. Former orchard lands can have soil pollution from past use of lead arsenate pesticides. Some of the largest affected areas are in central Washington. As development and population in this area have grown, areas impacted by lead arsenate pesticides have been discovered in schools and child care facilities.

Historic aerial photographs have helped identify former orchards. Sampling is conducted at schools that appear to be in the areas of former orchards. Sampling has shown some school properties require cleanup activities to reduce children's exposure to levels of lead arsenate that are not safe.

There have been 118 sites identified and sampled. Of these, 39 schools need cleanup actions. Twenty of those schools have completed cleanup actions.

Activities, Results & 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.
- Cleaned sites are ready for redevelopment and job creation.
- The number of sites with cleanup actions in progress will increase.

Performance Measures

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

Manage Underground Storage Tanks to Minimize Releases

Ecology currently regulates over 10,000 active tanks on over 3,600 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 such 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 that are cleaned up.
- Increased percent of underground storage tanks inspected that pass compliance for leak detection.

Performance Measure

- Average number of underground storage tank inspections completed per inspector.

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.
- Independent with some Ecology assistance or review.
- 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 such cleanup and promotes local economic development through new industries and other beneficial uses of cleaned properties.

Expected Results

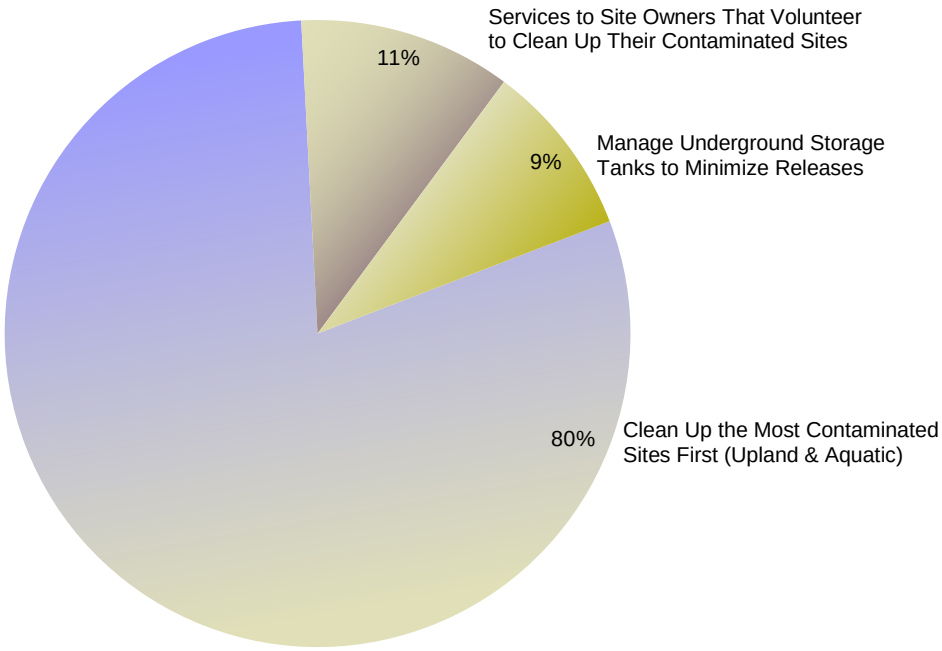
- Three percent increase in the number of contaminated sites that are voluntarily cleaned up by site owners and prospective buyers using private funding.
- Public and environmental health is protected.
- Cleaned sites are ready for redevelopment and job creation.
- Increased number of sites with cleanup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

Performance Measures

- Percent of 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.

Toxics Cleanup Program 2011-13 Biennium Budget
By Activities

Operating Budget = $50.0 Million; FTEs = 171.7



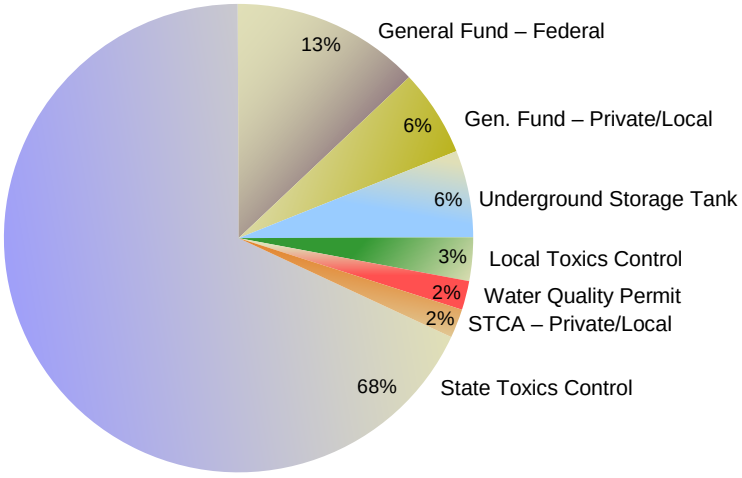
Activities	Dollars	FTEs
Clean Up the Most Contaminated Sites First (Upland & Aquatic) (A005)	$39,776,625	122.5
Services to Site Owners that Volunteer to Clean Up Their Contaminated Sites (A057)	5,799,760	26.7
Manage Underground Storage Tanks to Minimize Releases (A023)	4,423,429	22.5
Toxics Cleanup Operating Budget Total	**$49,999,814**	**171.7**

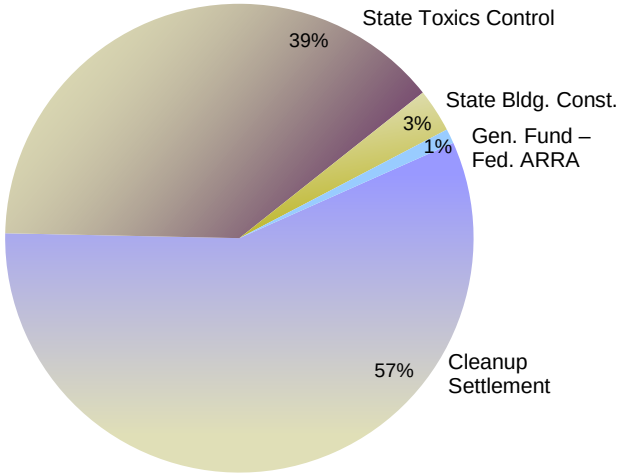
Toxics Cleanup Program 2011-13 Biennium Budget
By Fund Source

Operating Budget = $50.0 Million

Capital Budget = $77.9 Million

FTEs = 171.7





Operating Fund Sources	Amount	Uses
State Toxics Control (173)	$34,199,569	Clean up toxic sites, investigate and rank new toxic sites, defense site cleanup, technical assistance, site information management, and natural resource damage assessment.
General Fund – Federal (001)	6,736,020	Activities and funding for cleanup at National Priorities List sites and federal Superfund sites at military facilities, and technical assistance/cleanup related to leaking underground storage tanks.
General Fund – Private/Local (001)	3,001,482	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.
Underground Storage Tank (182)	2,750,718	Pollution prevention, inspection, and permitting activities related to underground storage tanks.
Local Toxics Control (174)	1,251,030	Technical assistance, oversight, and administration of the Local Toxics Control Account Remedial Action Grant Program.
Water Quality Permit (176)	1,163,454	Sediment source control.
State Toxics Control – Private/Local (173)	897,541	Activities related to the cleanup of leaking underground storage tanks (LUST). Prepayment agreements and recovered LUST.
Operating Budget Total	**$49,999,814**	
Capital Fund Sources		
Cleanup Settlement (15H)	$44,290,232	Skykomish Cleanup Project and continues remediation activities for the Asarco Tacoma smelter plume, Everett smelter site, and mine sites in central Washington.

State Toxics Control (173)	30,236,000	Investigate and clean up toxic sites. Includes re-appropriations for Puget Sound Aquatic Cleanup and Safe Soils Remediation and new funding for eastern Washington orphaned and abandoned cleanup sites.
State Building Construction (057)	2,281,000	Investigate and clean up toxic sites. This consists of re-appropriations for the following initiatives: Swift Creek Natural Asbestos Cleanup, Upper Columbia River Black Sand Beach Cleanup, and Skykomish Cleanup.
General Fund – Federal ARRA (001)	1,118,000	Federal American Reinvestment and Recovery Act funding for cleaning up leaking underground storage tanks.
Capital Budget Total	**$77,925,232**	
Toxics Cleanup Operating & Capital Budget Total	**$127,925,046**	

Ecology promotes composting as a good way to recycle waste, however, some people living or working near composters complain of nuisance odors. Ecology's John Cleary samples for odor at Cedar Grove Composting in Maple Valley.

Program Mission

The mission of the Waste 2 Resources Program is to prevent wastes and toxics whenever we can and use the remaining wastes as resources. This will contribute to environmental, social, and economic vitality.

Environmental Threats

Washington State has a system of waste management that relies on partnerships of state, local governments and the private sector. State law requires Ecology to develop regulations for solid waste handling and disposal facilities and a state plan, the *Beyond Waste* plan. Local governments are required to develop local plans that align with the state plan and address their needs for managing local solid and hazardous waste. Facilities, hauling of waste, recycling programs, and funding for those programs must be included in plans approved by Ecology. Support for implementing those plans and programs are provided through local fund sources such as tipping fees and Coordination Prevention Grants through Ecology. Ecology provides technical assistance to local governments for their plan development and implementation. The private sector provides much of the waste and recycling hauling services in the state and owns and operates many of the waste handling and disposal facilities.

As Washington's population grows, so does the amount of waste it produces. Over time, the character of the waste stream has changed along with the way we manage the waste. There is increasing demand to recover and reuse materials for a higher use than disposal. In addition, Chapter 70.95 RCW, *Solid Waste Management – Reduction and Recycling*, the primary statute for solid waste management in the state, establishes waste prevention as the first goal for solid waste management. This is reflected in *Beyond Waste*, the state solid and hazardous waste plan. Preventing waste in the first place is the smartest, cheapest, and healthiest approach.

Consistent with implementing state and federal laws, Ecology develops regulations to prevent improper disposal of hazardous and toxic wastes and requires better designed landfills that are environmentally monitored both while they are actively used and for a number of years after they have closed. The goal is to ensure contaminants do not reach the environment through groundwater, surface water, or discharges to the air.

Ecology provides technical assistance to local jurisdictional health departments (JHDs) that are responsible for permitting and compliance in the state, and facility owners and operators to implement these regulations. Ecology provides technical hydrogeologic and engineering assistance to the majority of JHDs, as they lack this technical expertise. This assistance includes reviewing landfill cover design and operational issues, like landfill liners, leachate collection systems, and groundwater sampling. This protects ground and surface water, and the air. Ecology also provides technical assistance for other solid waste handling facilities, such as transfer stations, compost facilities, and household hazardous waste facilities. Ecology staff reviews all permits JHDs issue and help them interpret our regulations.

While solid waste landfills have become more protective of the environment, disposal of certain wastes still poses potential threats. The waste stream itself has changed with new products, such as electronics and mercury lamps, which contain toxic materials. Keeping those out of the landfill in

the first place provides even better environmental protection.

The need to reduce potential environmental threats from toxic components in electronic products and mercury lamps has helped to produce two recent take-back laws in Washington. Ecology developed and oversees the E-Cycle Washington Program, which has resulted in keeping more than 100 million pounds of electronics containing toxic substances out of landfills since the program began in 2009. As directed by the 2010 Legislature, Ecology is currently developing a similar take-back program for mercury lamps.

In addition to keeping toxic products out of landfills, Ecology's investment in prevention strategies is the focus of our reducing toxic threats priority initiative and a fundamental principle of the *Beyond Waste* plan. This initiative, building on and coordinating work already underway across the agency, is aimed at fostering development of prevention approaches to avoid exposure to toxic chemicals and future costs that come when toxic chemicals find their way into the environment. Two focus areas have been identified: (1) preventing use of toxic chemicals in consumer products; and (2) preventing toxics from entering Puget Sound. Ecology is implementing the Children's Safe Products Act, passed by the Legislature in 2008. Ecology is also developing Chemical Action Plans for persistent bioaccumulative toxins (PBTs).

Currently, we dispose of many wastes that have value and could be used in a beneficial way. Ecology is working with others to improve recovery and management of those beneficial materials. We need to ensure those uses are done in a way that protects the environment as they reduce the use of expensive raw materials and benefit economic vitality.

Recycling traditional commodities, such as aluminum cans and paper, has become common in most areas. Expanding the types of materials collected for recycling helps to reduce the amount of waste going to landfills. Recycling also reduces the need for raw materials, when those commodities can be substituted, which conserves energy and reduces greenhouse gas emissions.

Organic materials make up about 30 percent of the municipal solid waste generated by Washington residences, businesses, and institutions. The majority of these organic materials—food waste, yard waste, compostable paper, clean wood, and textiles—are now landfilled or incinerated. Keeping organics out of landfills reduces greenhouse gas emissions by decreasing methane production, a potent greenhouse gas that is released during decomposition. Turning organics into compost, bioenergy, biofuels, and other products promotes economic vitality in growing industries, and protects the environment.

Ecology oversees the state biosolids program, develops the standards, and permits wastewater treatment plants, biosolids beneficial use facilities, septage management facilities, and compost facilities that use biosolids as feedstocks. Applying biosolids to land provides a valuable soil additive that improves soil structure and moisture holding capacity, and can substitute for chemical fertilizers.

Ecology's biosolids program is supported by fees paid by wastewater treatment plants. Enforcing the requirements for proper handling, quality standards for biosolids and rates at which biosolids are applied to the land, protects human health and the environment, while providing farmers and foresters a beneficial nutrient source.

Major industries in the state, such as pulp and paper, aluminum smelting, and oil refining have the potential to be major polluters of the environment. Ecology provides a single point of contact for improved environmental permitting, compliance, and technical assistance to ensure their activities minimize negative air, land, and water impacts.

Authorizing Laws

- *RCW 49.70 Worker and Community Right-to-Know Act*
- *RCW 70.93, Waste Reduction, Recycling and Model Litter Control Act*
- *RCW 70.94, Washington Clean Air Act*
- *RCW 70.95, Solid Waste Management Reduction and Recycle*
- *RCW 70.95C, Waste Reduction*
- *RCW 70.95D, Solid Waste Incinerator*
- *RCW 70.95F, Labeling of Plastics*
- *RCW 70.95G, Packages Containing Metals*
- *RCW 70.95I, Used Oil Recycling*
- *RCW 70.95J, Municipal Sewage Sludge – Biosolids*
- *RCW 70.95K, Biomedical Waste*

- *RCW 70.95M, Mercury*
- *RCW 70.95N, Electronic Product Recycling*
- *RCW 70.105, Hazardous Waste Management*
- *RCW 70.105D, Hazardous Waste Clean Up—Model Toxics Control Act*
- *RCW 70.132, Beverage Containers*
- *RCW 70.138, Incinerator Ash Residue*
- *RCW 70.240, Children's Safe Products Act*
- *RCW 70.270, Replacement of lead wheel weights*
- *RCW 70.275, Mercury-containing lights – proper disposal*
- *RCW 70. 280, Bisphenol A – Restrictions on sale*
- *RCW 70.295, Storm water pollution-coal tar*
- *RCW 90.48, Water Pollution Control Act*
- *RCW 90.52, Pollution Disclosure Act*

Constituents/Interested Parties

- *Federal, state, and local governments.*
- *Environmental organizations.*
- *Businesses.*
- *Citizens.*
- *G-certificated haulers.*
- *Recyclers.*

Issues

The Waste Reduction, Recycling and Litter Control Account Reductions and Proviso Language for the 2011-13 Biennium

Ecology's Waste 2 Resources program receives funding from the Waste Reduction, Recycling, and Litter Control Account (WRRLCA). RCW 70.93.180 requires 50 percent of the fund to be used for state agency litter pickup and prevention programs, 20 percent goes to local government for the Community Litter Cleanup Program, and 30 percent is directed to Ecology's waste reduction and recycling work. The 2011 Legislature suspended the 50/30/20 split and reduced Ecology's funding by $7 million. The Legislature also included proviso language that limits how we can spend the remaining funds while prioritizing litter pickup efforts, regulatory programs, and technical assistance to local governments.

Some of the specific activities and associated staff resources suspended for the biennium include:

- Ecology's litter prevention campaign, the litter survey, and 1.6 FTEs were suspended during the 2009-11 biennium because of the reductions in the WRRLCA. Those programs continue to be suspended. Surveys had shown a 25 percent reduction in litter because of the prevention campaign.
- Washington State Patrol's emphasis on secured load requirements is suspended.
- The litter hotline is no longer in service, resulting in less education and outreach to the public (0.65 FTE).
- Reductions to the Community Litter Cleanup Program continue.
- Funding to Washington State Parks and the Washington Department of Fish and Wildlife was suspended, resulting in increased litter on county roads, state lands, recreational areas, and more illegal dumps.
- *Beyond Waste* coordination and outreach was suspended.
- Implementation of the Green Building Initiative was suspended (2.0 FTEs).
- Staffing was reduced to provide technical assistance and work with construction and demolition recycling.
- Work promoting food waste composting and prevention programs was suspended.
- The School Awards Program was suspended, resulting in fewer incentives for exceptional waste reduction and recycling efforts in schools.
- Staff for the 1-800-RECYCLE hotline was greatly reduced (1.2 FTEs).
- Staffing and contract funds were reduced to compile, manage, and organize solid waste management and litter reduction data and share this information with local governments.
- There is no funding for a planned statewide waste characterization study.

In addition, to continue accomplishing Ecology's priority work, it was necessary to shift some work of existing staff to other eligible funding sources, resulting in approximately 5.8 FTEs as unfunded vacancies. We prioritized our reduced staff resources, focusing on the most problematic waste streams as discussed in the following sections.

Preventing and Cleaning Up Litter with Reduced Funding

Because of reduced funding in the 2011-13 biennium, coupled with proviso requirements, Ecology is prioritizing litter pickup efforts in partnership with the Washington State Department of Corrections (DOC). Historically, the most effective strategy for picking up the most litter with the least amount of investment included both DOC crews and Ecology Youth Corps (EYC) crews. Ecology kept DOC funding at 2009-11 levels and is continuing litter pickup with EYC at a reduced level. Reductions taken to other agency funding will mean fewer crews on county roads and public lands, and fewer miles covered for litter pickup. Expected results will be dirtier and potentially more dangerous roads.

Managing Waste Prevention and Recycling Issues with Reduced Funding

Ecology works on many different issues that deal with waste prevention and recycling. Reductions to the WRRLCA hamper our ability to evaluate new technologies and programs to prevent waste, deal with emerging recycling issues, and to provide technical assistance that furthers the goals of *Beyond Waste* (the state's solid and hazardous waste management plan). We are prioritizing our technical assistance to support work on priority waste streams.

Organics Management

Organic materials, including yard waste, food waste, land clearing debris, and construction and demolition debris have historically been a significant portion of the waste stream. To meet the *Beyond Waste* goal of closed-loop recycling and reuse of organic materials, those materials are being diverted from disposal to other management options. Some of the management options have associated concerns.

In major population centers of western Washington, there has been an increased demand for landfill diversion options for organic wastes like residential yard debris and food wastes. Local governments and waste management companies have responded with increased collection and diversion programs. Unfortunately, the infrastructure to support the increased collection is not adequate. The result is an overburdened compost industry with odor problems and excess product supply.

To address these issues, Ecology is providing technical assistance to jurisdictional health departments and compost facility owners to alleviate some of the problems. We are in the process of revising rules, WAC 173.350.220, Composting Facilities, to address feedstock, materials management, odor issues, and conditions for exempt compost facilities to improve organics management. Ecology is also working with local governments in their planning process to encourage them to evaluate the presence of adequate facility infrastructure to handle organic materials before they implement the collection programs.

Anaerobic digestion is also a proven technology that converts organic matter to biogas in the absence of oxygen, with nutrient rich fiber and liquid as by-products. Our rule revision process for WAC 173.350.220 will also address anaerobic digesters.

Sustainable building materials

Many organizations and non-profits are focused on promoting green building. Ecology has shifted focus to sustainable building materials. This involves using less material in the construction process, reducing the use of toxic building materials, and recovering more through deconstruction, reuse, and recycling of the construction and demolition debris. Construction and demolition (C&D) debris makes up about 25 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.

Solid Waste Laws Update Process

As the demand to recover and reuse materials for a higher use than disposal increases, we need to evaluate the way our solid waste system works to reduce barriers to these new material management techniques and ensure they are accomplished in an environmentally protective way. Ecology is working with stakeholders to evaluate how best to improve the state solid waste laws as the system changes. Chapter 70.95 RCW, *Solid Waste Management – Reduction and Recycling*, originally passed in 1969 and amended 29 times since then,

has greatly improved the way we manage our waste. It has helped our state become a national leader in waste management.

However, the way we manage waste has changed from predominantly relying on landfilling waste to increased recycling and reuse of materials as products. Rather than just disposing of waste, we now look at the best way to manage materials. This change is causing concerns about the sustainability of the existing financing infrastructure, which is based on waste disposal.

Keeping Mercury Lamps Out of Landfills

In 2010, the Washington State Legislature passed a law that requires producers of mercury-containing lights sold in or into Washington State for residential use to fully finance and participate in a take-back program to take effect on January 1, 2013. Producers of mercury-containing lights must fund Ecology's administration and enforcement costs. We are currently working with producers to fund the program and are developing guidelines and rules to implement this program.

Implementing Consumer Product Laws

Ecology adopted rules to carry out the state's groundbreaking Children's Safe Products Act, passed by the Legislature in 2008. The rule is designed to collect information that will help government and the public better understand the presence of chemicals in children's products. It requires manufacturers of children's products to report if their products contain certain chemicals.

In consultation with the Washington State Department of Health, Ecology developed a list of 66 chemicals of high concern for children. Beginning in August 2012, manufacturers of children's products that contain these chemicals must report that use to Ecology. Retailers who only sell, but do not make or import children's products, are not subject to the rule.

Ecology is developing strategies to implement a variety of laws that limit certain chemicals in consumer products, including:

- Lead in wheel weights.
- Bisphenol A in baby bottles and sippy cups.
- PBDE flame retardants in televisions, computers, mattresses and residential upholstered furniture,
- Coal tar containing pavement sealants.

Ensuring compliance with these laws, as well as the Children's Safe Products Act, is challenging with limited resources, since it involves the purchase and testing of affected products.

Preventing Toxics from Entering Puget Sound

Ecology has received funding from EPA through the National Estuary Program to help implement priority work consistent with the 2020 Action Agenda for the protection and restoration of Puget Sound. The goal of one strategy for toxics and nutrients prevention, reduction, and control is to improve both human and environmental health in the Puget Sound ecosystem by preventing, reducing, and controlling toxics and nutrients from entering Puget Sound fresh and marine waters.

Ecology, including the Waste 2 Resources Program, Shorelands and Environmental Assessment Program, and Water Quality Program, is working with various partners at the federal, tribal, state, and local levels and non-governmental organizations, academia, and businesses to develop and implement projects in line with a strategic framework. This strategic framework includes a multi-pronged approach to prevent toxics and nutrients from entering and impacting the Puget Sound ecosystem. Investments fall into five categories:

- Scientific investigation of toxics and nutrients.
- Prevent substances from being used in the first place.
- Limit or manage the amount of toxics and nutrients released into the environment.
- Clean up substances that have polluted air, land, or water.
- Measure program performance and use adaptive management to continuously improve programs.

Biomass as an Energy Source

Forest biomass has been used as an energy source in Washington for many years. Recently, use of forest biomass has drawn interest from the public, businesses, and government agencies. Some see it as source of renewable energy, jobs, and economic development and a way to decrease our reliance on fossil fuels. Others see it as a source of pollution and a threat to the health of people, forests, and the environment.

Governor Gregoire has called for the state to increase energy production from renewable resources. She believes renewable biomass and biofuels should be thought of as another crop that Washington can produce in our forests and fields.

Ecology is actively working with several pulp and paper mills on proposals to expand use of forest biomass. Cogeneration—the production of renewable power for sale and steam for manufacturing—is one of the most efficient uses of biomass. It often results in a direct reduction in the amount of fossil fuels used and pollution generated.

Thus far, each proposal for increased use of forest biomass has been opposed by local, regional, and national environmental groups. Ecology and the Attorney General's Office are working hard to ensure our regulatory decisions are solid and that approvals thoroughly address all applicable state and federal air pollution control rules.

Industrial Redevelopment and Coal Export

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 Bonneville Power Administration transmission lines, 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 some residual soil and groundwater contamination. Millennium Bulk Terminals recently purchased the rights to the property and plans to build a coal export terminal. Millennium's proposal has stirred concerns from many local, regional, and national environmental groups. They fear it will result in more reliance on fossil fuels, and local air and water impacts from coal dust.

Ecology is working with the landowner, Northwest Alloys (Alcoa) and Millennium to investigate and clean up residual contamination. While Ecology does not take a position on whether a coal terminal is a good idea for the site, we are working to ensure the investigation and cleanup are thorough, that we involve the community, and the property is ready for whatever its future use may be.

Activities, Results & Performance Measures

Eliminate Waste and Promote Material Reuse

Solid waste prevention and reusing materials that would otherwise be sent to landfills are important to protecting the environment and human health. Ecology's goal through its *Beyond Waste* plan is to eliminate wastes whenever we can and use the remaining wastes as resources. This will contribute to economic, social, and environmental vitality. Ecology will focus its efforts on green building, including reusing construction and demolition debris, assisting local recycling programs, and reusing organic materials. Waste reduction and material reuse conserves resources and saves money in both the public and private sector.

Expected Results

Waste will be eliminated and the remaining waste will be used as resources whenever possible. This is accomplished through:

- Technical assistance provided to local governments that operate recycling programs.
- Identifying barriers to construction material reuse.
- Development of regulations to promote reuse of organic materials.

Performance Measure

- Tons of solid waste generated annually in Washington.
- Tons of materials reused or recycled annually.
- Tons of electronics with toxic chemicals collected for recycling.
- Pounds of solid waste generated per dollar (State GDP, gross domestic product).
- Dollar value of recyclables disposed.
- Percent market share of green building projects in Washington.
- Tons of organics recycled and diverted from landfills.

Prevent and Pick Up Litter

Litter control efforts include a litter prevention campaign, Ecology Youth Corps litter pickup crews, Community Litter Cleanup contracts, and coordination with other state and local efforts to maximize litter pickup. Litter prevention and pickup helps keep Washington green, supports

tourism, and provides employment opportunities to youth.

Expected Results

Litter prevention and pickup results in 45,000 miles of cleaner roads through the employment of youth litter crews (Ecology Youth Corps) and local governments to clean up litter and illegal dumps. This is accomplished through:

- 450 employed youth picking up 1.4 million pounds of litter.
- Local governments cleaning up 8 million pounds of litter through $2.2 million in grants.

Performance Measures

- Road cleanliness rating (1 = cleanest, 6 = very littered).
- Pounds of litter picked up annually.

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

Ecology protects public health and promotes resource recovery through administration of three capital grant programs.

- Coordinated Prevention Grants support local government activities related to landfill regulation to protect groundwater; recycling and reuse programs; hazardous substance use reduction; and moderate risk waste collection (hazardous waste generated from households and small businesses). New initiatives focus on reuse of organic materials, reducing building construction waste, and reducing toxicity in products.
- Remedial Action Grants provide funding to local governments to clean up property contaminated by hazardous substances, which protects human health and environmental resources, such as groundwater. Restored properties can then be redeveloped.
- Public Participation Grants provide funding for interest groups to inform citizens of local cleanups and for waste reduction efforts.

Expected Results

Groundwater is protected, hazardous substance use is reduced, recycling and reuse programs are operated, and moderate risk waste is collected through the Coordinated Pollution Prevention Grant program. This is accomplished by:

- Providing technical assistance on landfill regulations and moderate risk waste through more than 500 agreements with local governments and non-profits.
- Over 108 thousand pounds of moderate risk waste collected for proper recycling or disposal at moderate risk waste collection facilities.
- Jurisdictional health departments ensuring that approximately 700 solid waste facilities statewide comply with regulatory standards.
- Toxic sites and contaminated drinking water systems are cleaned up and managed through the Remedial Action Grant program.
- Citizens have access and information related to cleanup of contaminated sites through the Public Participation Grant program.

Performance Measures

- Tons of solid waste generated annually in Washington.
- Tons of materials reused or recycled annually.
- Pounds of household and small quantity generator hazardous wastes recycled or properly disposed.
- Pounds of solid waste generated per dollar (State GDP, gross domestic product).
- Dollar value of recyclables disposed.
- Tons of organics recycled and diverted from landfills.

Improve Environmental Compliance at 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 an improved compliance rate with environmental standards through one-stop environmental permitting, compliance, and technical assistance. This is accomplished through:

- Assurance that at least 90 percent of permits are up-to-date at all times.

- Facility compliance with their permit standards resulting in pollutant emissions going down over time.

Performance Measure

- Percent of industrial section permits that meet timeliness goals.

Reduce Persistent Bioaccumulative Toxins in the Environment

Persistent bioaccumulative toxins (PBTs) are a particular group of chemicals that can significantly affect the health of humans, fish, and wildlife. In the 2001-03 biennium, the Legislature funded Ecology implementation of a long-term strategy designed to reduce PBTs in Washington's environment over the coming years. This strategy will coordinate agency-wide efforts, engage other key organizations and interest groups, and provide for public education and information on reducing PBTs in the environment.

Expected Results

Public health and environmental impacts associated with PBTs and other toxic substances are minimized. Strategies are developed and implemented to reduce and eliminate these harmful chemicals. This is accomplished through:

- Development and implementation of Chemical Action Plans for lead and poly-aromatic hydrocarbons.
- Developing a six-year toxics reduction strategy for Puget Sound.
- Implementing a product stewardship program for lights containing mercury.

Performance Measures

- Pounds of mercury collected and/or captured.
- Number of children tested for lead in blood.
- Percent of tested children with elevated lead blood levels.
- Tons of electronics with toxic chemicals collected for recycling.
- Pounds of household and small quantity generator hazardous wastes recycled or properly disposed.

Manage Solid Waste Safely

Solid waste prevention and recycling, and reusing wastes that can't be prevented, are Ecology goals. But, we know that eliminating solid waste entirely is not realistic. In addition, the need remains for disposal facilities for cleanup-type wastes, such as asbestos, petroleum contaminated soils, and other contaminated materials. Solid waste facilities are managed by local health jurisdictions. Ecology provides technical assistance and oversight to local health departments to ensure solid waste handling and disposal facilities are in compliance with environmental requirements. Proper solid waste handling and disposal practices will minimize toxics contamination to the state's groundwater, surface water, and air.

Expected Results

Disposed solid waste is managed in environmentally compliant facilities to minimize toxics contamination to water and air. This is accomplished through providing technical assistance to jurisdictional health departments to ensure facility compliance with environmental regulations.

Performance Measures

- Tons of solid waste generated annually in Washington.
- Tons of solid waste disposed annually by Washington residents and businesses.
- Pounds of household and small quantity generator hazardous wastes recycled or properly disposed.
- Dollar value of recyclables disposed.

Reduce Toxic Chemicals in Products and Promote Safer Alternatives

Toxic chemicals in products are polluting our environment and have the potential to harm humans. Reducing toxic chemicals in products over time will lower the risks to people and the environment. Making significant progress toward achieving this goal requires several strategies:

- Identifying chemicals of concern in consumer products and strengthening the ability to gather data on the presence of these chemicals in products and the environment.
- Improving tools and authorities to promote safer alternatives to identified chemicals.
- Promoting green chemistry.
- Promoting environmentally preferred purchasing.

- Improving education, outreach, and communication.

Reducing toxic chemical threats is the smartest, cheapest, and healthiest approach to protecting people and the environment.

Expected Results

Toxic chemicals in products are reduced over time to lower health risks to people and the environment. This is accomplished through:

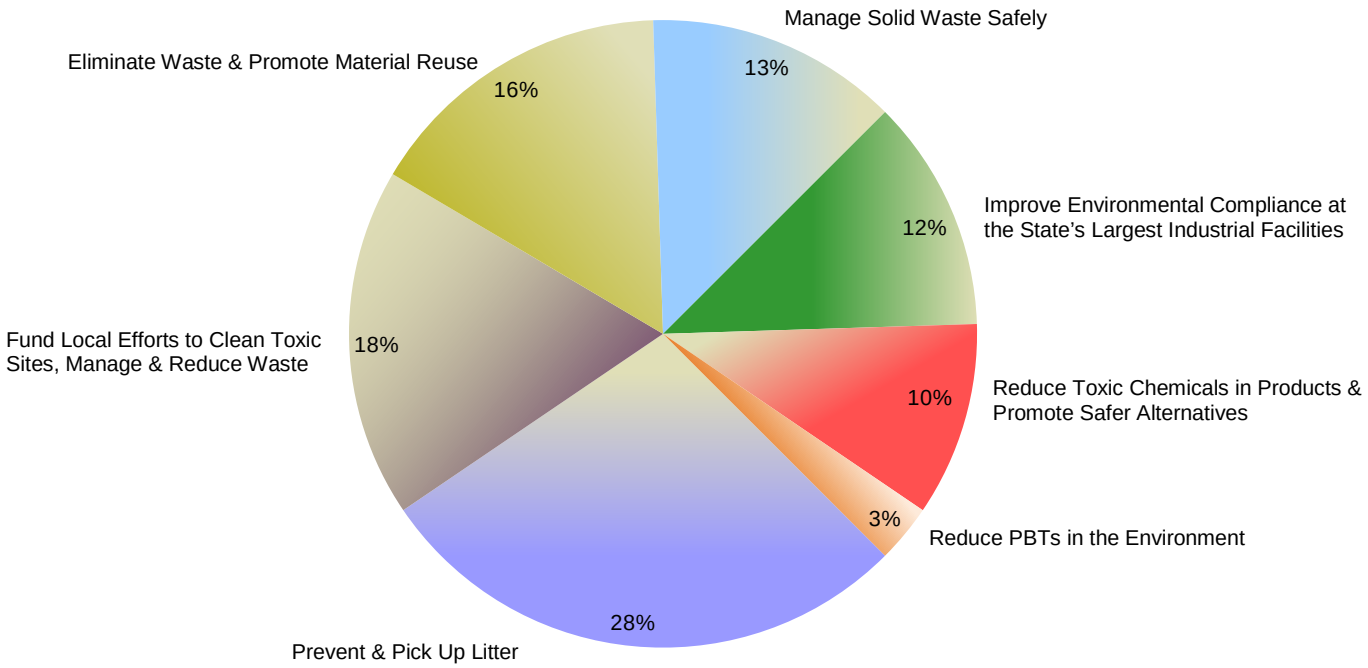
- 40 million pounds of electronics containing toxic substances collected through the E-Cycle Program.
- Expanding product stewardship program to paint, carpets, and pharmaceuticals.
- Collection and capture of an additional 1,500 pounds of mercury.
- Collection, evaluation, and information shared on the presence of chemicals of high concern for children in children's products.
- Assurance that state principles for chemical policy are incorporated in the federal Toxics Substances Control Act (TSCA) reform.
- Protocols, in coordination with other states, are developed for identifying safer alternatives for toxic chemicals of concern in products and manufacturing; and development of a chemical alternative assessment guidance document.
- Development of a green chemistry "road map" for Washington.
- Amendments to the Children's Safe Products Act passed to require manufacturers to use the protocol to assess safer alternatives to toxic chemicals of concern.
- State and local governments improve purchasing practices of environmentally preferred products.

Performance Measures

- Tons of electronics with toxic chemicals collected for recycling.

Waste 2 Resources Program 2011-13 Biennium Budget By Activities

Operating Budget = $30.8 Million; FTEs = 92.1



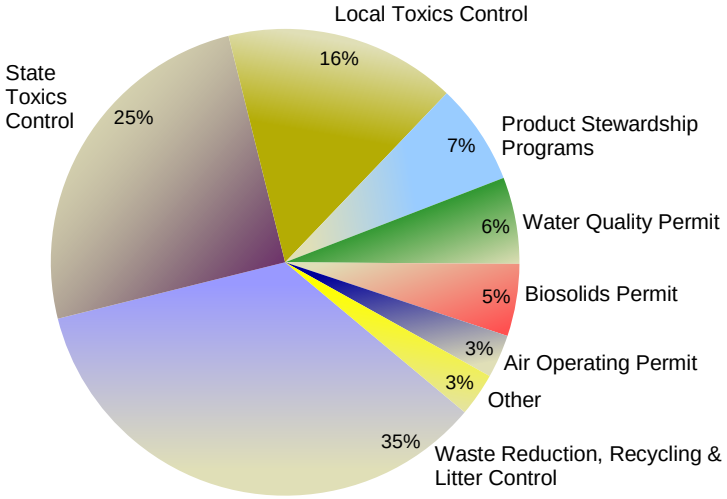
Activities	Dollars	FTEs
Prevent & Pick Up Litter (A010)	$8,734,631	5.2
Fund Local Efforts to Clean Up Toxic Sites & Manage or Reduce Waste (A013)	5,583,708	14.4
Eliminate Waste & Promote Material Reuse (A009)	4,885,446	24.4
Manage Solid Waste Safely (A064)	3,826,847	20.0
Improve Environmental Compliance at the State's Largest Industrial Facilities (A028)	3,672,816	17.2
Reduce Toxic Chemicals in Products and Promote Safer Alternatives (A065)	3,182,285	8.1
Reduce Persistent Bioaccumulative Toxins (PBTs) in the Environment (A050)	916,599	2.8
Waste 2 Resources Operating Budget Total	**$30,802,332**	**92.1**

Waste 2 Resources Program 2011-13 Biennium Budget By Fund Source

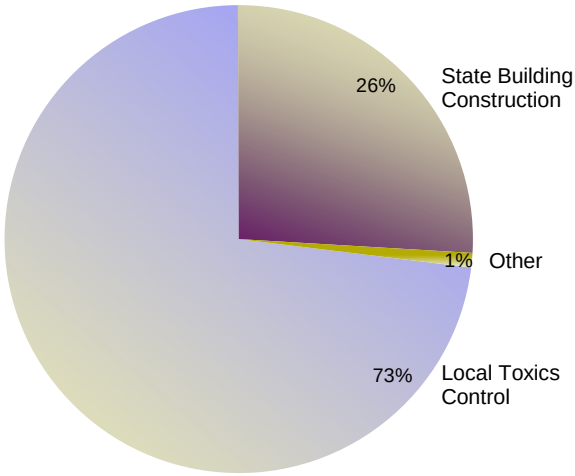
Operating Budget = $30.8 Million

FTEs = 92.1

Capital Budget = $175.2 Million



Other = Electronic Products Recycling (2.02%), General Fund – State (0.67%), General Fund – Federal (0.39%), and General Fund – Private/Local (0.16%).



Other = Waste Tire Removal (0.61%), Cleanup Settlement (0.46%), and State Toxics Control (0.20%).

Operating Fund Sources	Amount	Uses
Waste Reduction, Recycling & Litter Control (044)	$10,723,950	Supports the Ecology Youth Corps, as well as other state agency efforts to clean up litter (50%); recycle hotline, technical assistance in waste reduction, pollution prevention initiatives, & recycling (30%); litter grants to local governments (20%).
State Toxics Control (173)	7,888,465	Provide technical assistance to local health departments, pollution prevention initiatives, regulatory reform, industrial dangerous waste & cleanup activities; public participation grants.
Local Toxics Control (174)	4,851,815	Technical assistance & grants are provided to local governments for local solid waste planning & oversight of solid waste facilities; public participation grants.
Product Stewardship Programs (16T)	2,159,175	Implement RCW 70.275, Mercury Containing Lights – proper disposal by developing regulations and performance standards for collectors of lamps for recycling.
Water Quality Permit (176)	1,773,050	Industrial water quality permitting, inspections, & sediment source control.
Biosolids Permit (199)	1,537,392	Administer permit applications, review related plans & documents, monitor, evaluate, conduct inspections, oversee performance of delegated program elements, provide technical assistance, & support overhead expenses that are directly related to these activities.
Air Operating Permit (219)	869,965	Industrial air quality permitting, inspections, & enforcement.
Electronic Products Recycling (11J)	622,363	Administer manufacturer registration fee collections, as well as monitor, evaluate, & implement the regulations adopted for the EPR program in rule.
General Fund – State (001)	206,392	Water quality permit enforcement actions & industrial new source review.
General Fund – Federal (001)	119,765	Biosolids Coordinator Workshop and National Estuary Project.

General Fund – Private/Local (001)	50,000	Energy Facility Site Evaluation Council (EFSEC) activities & additional appropriation authority for potential projects with local communities.
Operating Budget Total	**$30,802,332**	
Capital Fund Sources		
Local Toxics Control (174)	$127,067,139	Funding grants to local governments for contaminated site cleanups and waste prevention.
State Building Construction (057)	45,898,000	New appropriations & capital re-appropriations funding grants to local governments for contaminated site cleanups & waste prevention.
Waste Tire Removal (08R)	1,077,183	Statewide waste tire pile cleanup & prevention.
Cleanup Settlement (15H)	800,000	Re-appropriations from a settlement for the Lilyblad Site Cleanup.
State Toxics Control (173)	359,000	Re-appropriations for the Lilyblad Site Cleanup.
Capital Budget Total	**$175,201,322**	
Waste 2 Resources Operating & Capital Budget Total	**$206,003,654**	

Presently, the King County "Brightwater" membrane bioreactor (MBR), a sewage treatment plant in Woodinville, is the most technically advanced and largest MBR facility in the world.

Program Mission

The mission of the Water Quality Program is to protect and restore Washington's waters.

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 chief among them is stormwater. 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 such as oil, fertilizers, pesticides, soil, trash, and animal waste. From here, the water might flow into a local waterway. In addition, 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 other 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 Improvement Reports to address those pollutants. The Water Quality Improvement Project (Total Maximum Daily Load) 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*
- *RCW 70.105D, Model Toxics Control Act*
- *RCW 70.146, Water Pollution Control Facilities Financing Act*
- *RCW 76.09, Forest Practices Act*
- *RCW 90.42, Water Resources Management Act*
- *RCW 90.46, Reclaimed Water Use*
- *RCW 90.48, Water Pollution Control Act*
- *RCW 90.50A, Water Pollution Control Facilities Federal Capitalization Grants*
- *RCW 90.54, Water Resources Act of 1971*
- *RCW 90.64, Dairy Nutrient Management Act*
- *RCW 90.71, Puget Sound Water Quality Protection*

Constituents/Interested Parties

- *Citizens & special interest groups.*
- *Local governments, cities, counties.*
- *Businesses & industries.*
- *Environmental organizations.*
- *State & federal governments/agencies.*
- *Tribes & 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 will:

- Help dischargers comply with existing permits.
- Make permits understandable and effective in protecting water quality.
- Work to increase the use of reclaimed water.

Clean Up Polluted Waters

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

- Assess state waters and update the list of polluted marine waterbodies.
- Work with communities to clean up nonpoint source pollution.

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 will:

- Secure federal funding to support nonpoint source work.
- Make 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 will:

- Help dischargers improve compliance with existing stormwater permits.
- Work to ensure that having a permit is not a competitive disadvantage.
- Help dischargers reduce contaminated stormwater run-off from their sites.

Financial Assistance

Ecology will distribute more than 200 million dollars in water quality grants and loans this biennium to protect public health and the environment. Ecology will:

- Provide financial assistance efficiently and effectively to 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 to properly manage public funds.
- Continue to effectively manage the 65.4 million dollars received by the state from the Federal American Reinvestment and Recovery Act of 2009 (for water pollution control projects) that were awarded to the highest priority projects.

Activities, Results & Performance Measures

Clean Up Polluted Waters

The federal Clean Water Act requires Ecology to develop water quality standards and to identify waterbodies 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 waterbodies 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 waterbody segments are managed on 650 waterbodies (Washington's legal commitments specified in a Memorandum of Agreement prompted by a lawsuit).
- 50 water improvement reports and associated technical reports are submitted each year to the U.S. Environmental Protection Agency (EPA).
- Local communities get help implementing water quality improvement reports.
- An updated list of marine waterbodies failing to meet water quality standards is developed.

Performance Measures

- Number of water quality cleanup plans submitted to the EPA.

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

- Number of days it takes to make final decisions on construction stormwater permits.
- Percent of city and county Phase II Municipal Stormwater permittees in substantial compliance with their permit.
- Number of industrial stormwater inspections.
- Number of construction stormwater inspections.
- Industrial stormwater facilities submitting discharge monitoring reports.
- Construction stormwater facilities submitting monitoring reports.

Prevent Point Source Water Pollution

Ecology protects Washington's water by regulating point source discharges of pollutants to surface and groundwaters. 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

- Percent of active water quality discharge permits that are up-to-date.

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 dollars 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 funded in Puget Sound counties.

Reduce Nonpoint Source Water Pollution

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

Expected Results

Protection of surface and groundwater is improved through community implementation of the state's Water Quality Management Plan to Control Nonpoint Pollution and water quality improvement reports.

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

Performance Measure

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

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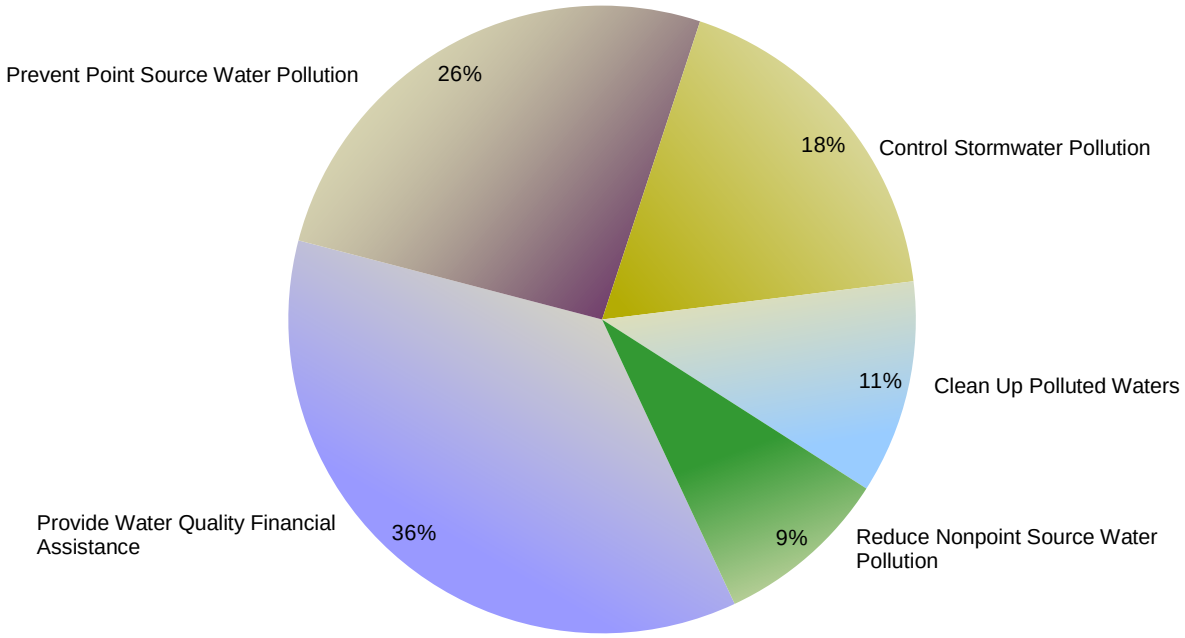
Water Quality Program 2011-13 Biennium Budget By Activities

Operating Budget = $73.7 Million; FTEs = 246.6



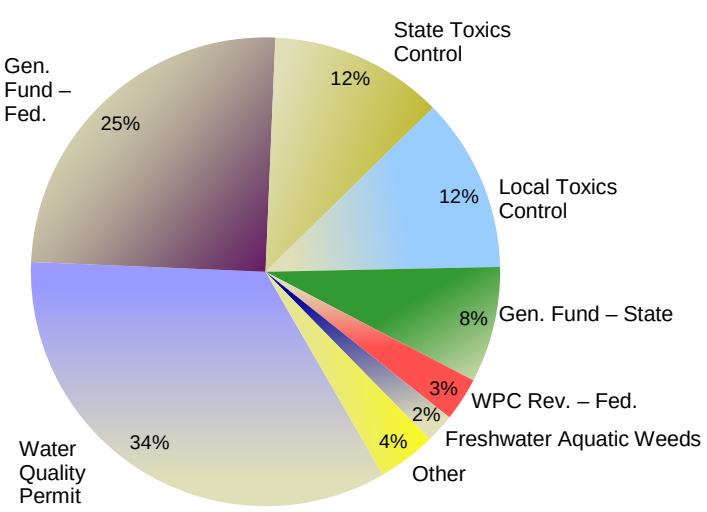
Activities	Dollars	FTEs
Provide Water Quality Financial Assistance (A043)	$27,496,800	43.4
Prevent Point Source Water Pollution (A032)	19,002,026	91.2
Control Stormwater Pollution (A008)	13,043,084	52.8
Clean Up Polluted Waters (A006)	7,763,903	34.3
Reduce Nonpoint Source Water Pollution (A049)	6,388,067	24.9
Water Quality Operating Budget Total	**$73,693,880**	**246.6**

Water Quality Program 2011-13 Biennium Budget
By Fund Source

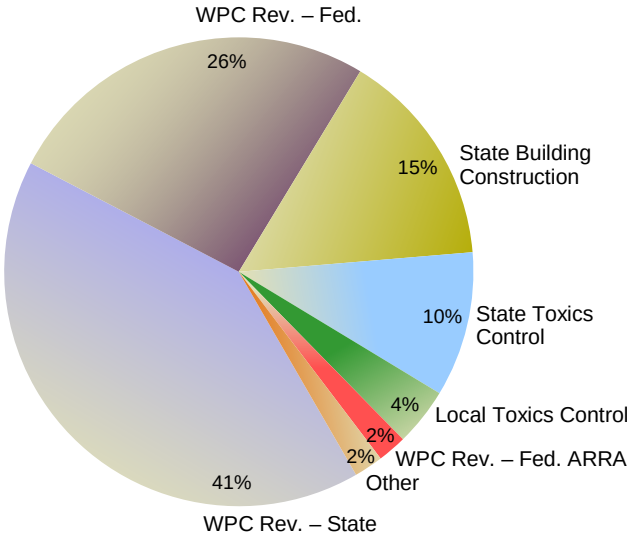
Operating Budget = $73.7 Million

FTEs = 246.6

Capital Budget = $396.5 Million



Other = Reclamation (1.37%), General Fund – Private/Local (1.26%), Water Pollution Control Revolving – State (0.75%), Aquatic Algae Control (0.67%), and Metals Mining (0.02%).



Other = Water Quality Capital (0.35%), State & Local Improvements Revolving – Waste Disposal Facilities (Referendum 26) (0.26%), and State & Local Improvements Revolving – Waste Disposal Facilities (Referendum 39) (0.07%).

Operating Fund Sources	Amount	Uses
Water Quality Permit (176)	$24,958,637	Issue & manage federal & state wastewater discharge permits.
General Fund – Federal (001)	18,413,593	Numerous U.S. Environmental Protection Agency grants for point & nonpoint source control; water cleanup plans; management of water quality grants & loans to local governments; & groundwater protection.
State Toxics Control (173)	9,166,111	Stormwater management; water quality standards; support to the Lower Columbia River Estuary Management Program; aquatic pesticides management.
Local Toxics Control (174)	8,983,770	Grant & loan management to local governments for municipal stormwater programs, including but not limited to, implementation of Phase II municipal stormwater permits; stormwater source control for toxics in association with contaminated sediment sites & shellfish protection districts where stormwater is a significant contributor.
General Fund – State (001)	5,528,462	Enforcement of permit requirements; Puget Sound Plan activities such as nonpoint source watershed management; forest practices compliance; water cleanup plans; data management, & aquatic plant management. This funding is also utilized as state match needed to secure federal funding.
Water Pollution Control Revolving – Federal (727)	2,240,616	Administer a loan program for constructing or replacing water pollution control facilities. Activities include portfolio management & technical assistance to local governments for point, nonpoint, & estuary projects.
Freshwater Aquatic Weeds (222)	1,403,195	Grants to local governments to prevent, remove, or manage invasive freshwater aquatic weeds.

Reclamation Revolving (027)	1,007,538	Funding provided to implement SSB 5881, which would increase the hydropower license fees to fully cover the costs of Ecology & the Department of Fish & Wildlife to license, re-license, & monitor the effects of hydroelectric projects on water, fish & wildlife.
General Fund – Private/ Local (001)	927,739	Provide technical expertise to local government water quality projects such as King County's Brightwater Wastewater Treatment Plant & the Sound Transit Authority's light rail project.
Water Pollution Control Revolving – State (727)	555,590	Administer a loan program for constructing or replacing water pollution control facilities. Activities include portfolio management & technical assistance to local governments for point, nonpoint, & estuary projects.
Aquatic Algae Control (10A)	494,629	Grants to local governments to prevent, remove, or manage freshwater and saltwater aquatic blue-green algae.
Metals Mining (258)	14,000	Inspections required by Metals Mining Act.
Operating Budget Total	**$73,693,880**	
Capital Fund Sources		
Water Pollution Control Revolving – State (727)	$162,910,941	State funds for loans for constructing or replacing water pollution control facilities, nonpoint source control activities, & estuary management.
Water Pollution Control Revolving – Federal (727)	104,342,416	Federal funds for loans for constructing or replacing water pollution control facilities, nonpoint source control activities, & estuary management.
State Building Construction (057)	58,703,883	New appropriations & re-appropriations for the Centennial Clean Water Program, Puget Sound Stormwater projects, Non-Puget Sound Stormwater projects, & Reclaimed Water Projects.
State Toxics Control (173)	41,490,019	Grants for stormwater management implementation statewide. Grants/loans for water pollution control facilities, nonpoint source control, & water quality improvement planning & implementation/activities.
Local Toxics Control (174)	16,785,389	Grants for statewide stormwater projects to local governments for plan, design, and construct stormwater retrofit or low-impact development projects.
Water Pollution Control Revolving – Federal ARRA (727)	9,572,353	Federal stimulus funds for loans for constructing or replacing water pollution control facilities.
Water Quality Capital (11W)	1,372,573	Re-appropriation for Centennial Clean Water pollution control facilities, nonpoint source control, & water quality improvement planning & implementation/activities. Grant to Hood Canal Coordinating Council for on-site septic replacement loan program.
State & Local Improvements Revolving – Waste Disposal Facilities (Referendum 26) (051)	1,026,756	Re-appropriations for statewide stormwater projects to local governments for plan, design, and construct stormwater retrofit or low-impact development projects.
State & Local Improvements Revolving – Waste Disposal Facilities (Referendum 39) (055)	278,125	Re-appropriations for statewide stormwater projects to local governments for plan, design, and construct stormwater retrofit or low-impact development projects.
Capital Budget Total	**$396,482,455**	
Water Quality Operating & Capital Budget Total	**$470,176,335**	

Ecology's Jim Pacheco takes a stream flow measurement in Little Lilliwaup Creek in Mason County. The Water Resources Program uses field measurements like this to help determine a stream's seasonal flow pattern, and also to manage the water resource to meet current and future needs of the natural environment and Washington's communities.

Program Mission

The mission of the Water Resources Program is to support sustainable water resources management to meet the present and future water 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. However, water availability can no longer be taken for granted. Washington increasingly lacks water where and when it is needed for communities and the environment. Increased demand for water is due mainly to population and economic growth. At the same time, stream flows need to be restored to save fish from extinction.

There is increased awareness of water needs and availability. Many factors have combined to build the awareness:

- Threat of extinction to once abundant fish stocks and federal Endangered Species Act requirements.
- Frequent droughts resulting in dry streams, withered crops, dead fish, wildfire hazards, and reduced hydropower production.
- Record low stream flows and declining aquifer and groundwater levels in some areas of the state.
- Lack of water for further allocation without impairing senior water rights, instream flows, or depleting aquifers in many areas of the state.
- Legal uncertainty related to the validity and extent of water rights and claims, including federal and Indian rights and claims.
- Lack of adopted instream flow levels for many rivers and streams.
- Inadequate information on water availability, stream flows, and groundwater.
- A growing concern over the long-term effects of climate change on the water supply.

Authorizing Laws

- *RCW* 18.104, *Water Well Construction Act (1971)*
- *RCW* 43.21A, *Department of Ecology (1970)*
- *RCW* 43.27A, *Water Resources (1967)*
- *RCW* 43.83B, *Water Supply Facilities (1972)*
- *RCW* 43.99E, *Water Supply Facilities – 1980 Bond Issue (Referendum 38) (1979)*
- *RCW* 86.16.035, *Department of Ecology Control of Dams and Obstructions (1935)*
- *RCW* 90.03, *Water Code (1917)*
- *RCW* 90.08, *Stream Patrolmen (1925)*
- *RCW* 90.14, *Water Rights Claims Registration and Relinquishment (1967)*
- *RCW* 90.16, *Appropriation of Water for Public and Industrial Purposes (1869)*
- *RCW* 90.22, *Minimum Water Flows and Levels (1969)*
- *RCW* 90.24, *Regulation of Outflow of Lakes (1939)*
- *RCW* 90.28, *Miscellaneous Rights and Duties (1927)*
- *RCW* 90.36, *Artesian Wells (1890)*
- *RCW* 90.38, *Yakima River Basin Water Rights (Trust Water) (1989)*
- *RCW* 90.40, *Water Rights of United States (1905)*
- *RCW* 90.42, *Water Resource Management (Trust Water) (1991)*
- *RCW* 90.44, *Regulation of Public Groundwaters (1945)*
- *RCW* 90.46, *Reclaimed Water Use (1992)*
- *RCW* 90.54, *Water Resources Act of 1971*
- *RCW* 90.66, *Family Farm Water Act (1977)*

- *RCW* 90.80, *Water Conservancy Boards (1997)*
- *RCW* 90.82, *Watershed Planning (1997)*
- *RCW* 90.86, *Joint Legislative Committee on Water Supply During Drought (2005)*
- *RCW* 90.90, *Columbia River Basin Water Supply (2006)*
- *RCW* 90.92, *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, conservation districts.*
- *State and federal agencies.*
- *Indian tribes.*
- *People living near dams and owners of dams.*
- *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

Improving Water Management Capacity

Several factors are leading us to improve water management:

- Increasing water demand.
- Frequent droughts.
- Better understanding and acceptance of water availability problems.
- Concern for how climate change could impact water supplies and the environment.

Ecology is working with stakeholders and the Legislature to update water management policies and provide additional funding to address the increased demand and competition for water. These actions have resulted in some progress, but have also highlighted the gap between current water management capacity and other challenges:

- Setting instream flow requirements while providing for future water use, implementing local water management plans, and taking other actions to get water back into streams. An intensive effort is ongoing with local interests to set instream flows on streams and rivers.
- Implementing local watershed plans designed to meet water needs and protect water resources sustainability. We are working with local watershed planning units to help them successfully finish local planning. We are providing funding for plan implementation, including actions ranging from storage projects to compliance.
- Processing water rights applications. We are focusing on more efficiently making decisions on new water rights applications, as well as change applications to help facilitate the sale, transfer, and changes in water use to better use existing water supplies.
- 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 & Performance Measures

Clarify Water Rights

Ecology supports water rights adjudication. Adjudication reduces water right conflicts and supports

sound water management by increasing certainty regarding validity and extent of water rights. It is a judicial determination of water rights and claims, including federal, tribal, and non-tribal claims. Current focus is on completing the Yakima River Basin surface water adjudication and pre-adjudication work in the Spokane and Colville watersheds.

Expected Results

- Work with tribes on water settlements, increased water rights certainty, and reduced conflict.
- Major uncertainty regarding the validity and extent of surface water rights in the Yakima Basin is removed.
- Water rights documents (certificates, claims, permits, etc.) in the Spokane Basin will be reviewed to prepare for anticipated adjudication proceedings with Idaho.

Performance Measures

- Number of tribal water right settlement processes initiated.
- Number of claims, rights, and/or permits reviewed for the Spokane adjudication.

Assess, Set and Enhance Instream Flows

Ecology evaluates and sets instream flows that are fundamental to water resources management. Instream flows are used to determine how much water needs to remain in streams to meet environmental needs, how much can be allocated, and when to regulate junior water users based on flow levels. Ecology acquires water and uses other management techniques to restore and protect flows, while also meeting out-of-stream needs.

Expected Results

- Water availability is determined and water is sustained for current and future needs.
- Increased setting and enhancing of instream flows in critical water basins to benefit people, fish, farming, and the environment.
- Four instream flows are set (Walla Walla, Wenatchee, Lewis, and Salmon-Washougal) working with local watershed groups and critical basins not engaged in watershed planning.

Performance Measures

- Volume of water saved for instream flow in acre feet.
- Number of instream flow rules adopted.
- Acre-feet of additional water availability in eastern Washington.

Ensure Dam Safety

Ecology protects life, property, and the environment by overseeing the safety of Washington's dams. It includes inspecting the structural integrity, 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 are 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.

Manage Water Rights

Ecology allocates surface and groundwater to meet the many needs for water. We make decisions on applications for new water rights and on applications for changes and transfers of existing water rights. Water right decisions assess 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, 3,000 permits, and 166,000 claims.

Expected Results

- Water needs are met and existing water users and the environment are protected.
- Improved allocation of new water rights and changes to existing rights.
- New municipal water right provisions are implemented with the Department of Health.
- Timely and sound decisions are made on applications for new water rights and changes to existing rights to (re)allocate water.

Performance Measure

- Number of total water right decisions completed.

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 via emergency transfers, water right changes, and temporary wells. Ecology also provides drought related information and financial assistance and coordinates 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.
- Loss prevention efforts.

Performance Measure

- No measures are associated with this activity until a state drought is declared by the Governor.

Promote Compliance with Water Laws

Ecology helps ensure water users comply with the state's water laws so 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 and compliance with the state's water laws so legal water users and applicants for water rights are not impaired, water use remains sustainable, and the environment is protected.

- 80 percent of water is metered and reported in 16 critical water basins.
- Water right holders receive compliance information, assistance, and strategic enforcement action.
- Water use of streams with flows set is regulated during low flow periods.

Performance Measures

- Percent of water use that is metered in 16 critical basins.
- Number of compliance actions for water management.

Provide Water Resources Data and Information

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

Expected Results

Sound water management is supported through improved agreement and more informed water resources decisions based on increasing 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

- Percent of water rights mapping completed statewide.

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. Work is accomplished in partnership with delegated counties delivering technical assistance to

homeowners, well drillers, tribes, and local governments.

Expected Results

- The public's safety, environment, and property are protected.
- Well drillers get licensing and training services.
- Well drilling is regulated.

Performance Measure

- Percent of water supply wells inspected in delegated counties.

Support Water Use Efficiency

Ecology provides agricultural, commercial/ industrial, and nonprofit water users with services that deliver water savings. These include information, planning, and technical, engineering, and financial assistance. Support also is provided for water reuse projects and to the Department of Health for municipal water conservation.

Expected Results

- Increase water, energy, and cost savings to protect the environment, increase business competitiveness, and reduce pressure on water supplies and waste treatment facilities.
- Agricultural, commercial, industrial, and non-profit water users get technical support.
- Department of Health water conservation and reclaimed water efforts get support.

Performance Measure

- Amount of funding provided to projects that improve water use efficiency.

Support Watershed-Based Water Supply and Resource Stewardship

Ecology supports watershed-based management of water for people, farms, and fish. We provide technical support, staff support, scientific expertise, and financial assistance to help local groups design and implement integrated watershed management and locally-tailored water supply solutions. Work in this activity focuses on improving long-term reliability and availability of water for in-stream and out-of-stream needs per locally developed watershed plans and activities.

Expected Results

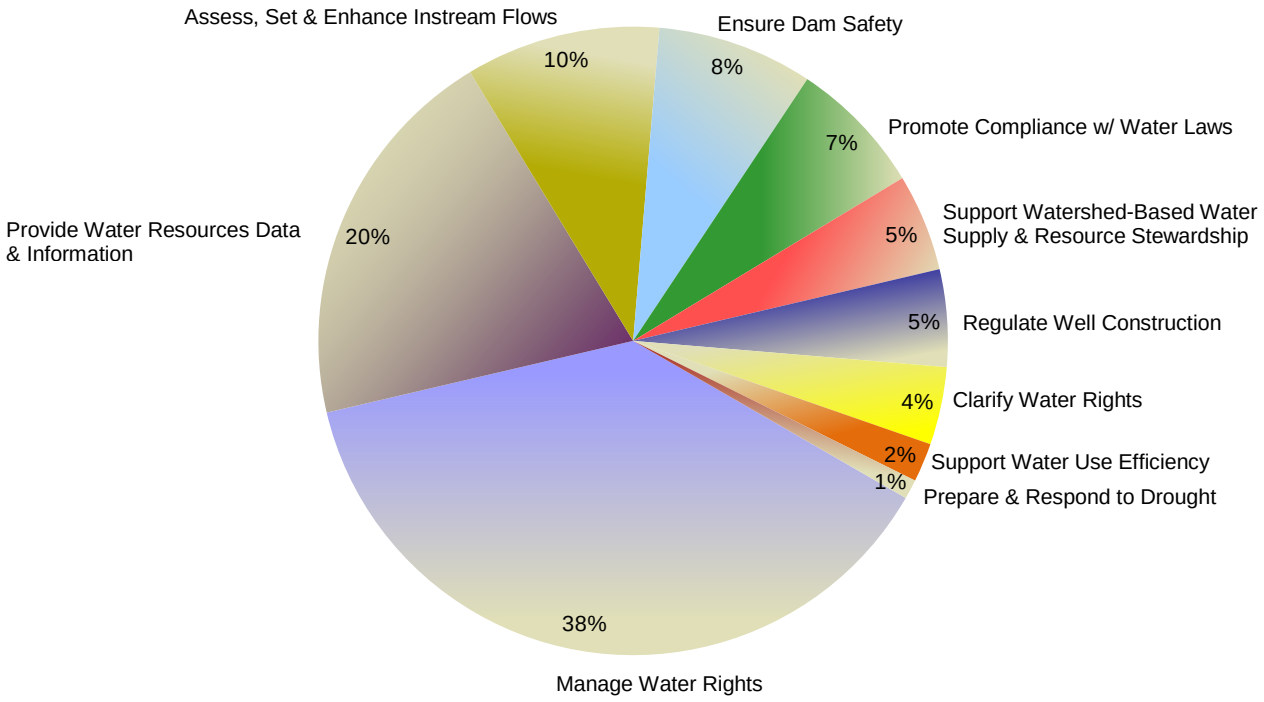
Water supply solutions are developed and implemented in water-short areas of the state to provide water for people, farms, and fish. Targeted technical and financial assistance is provided for plan implementation and updates where community/watershed-based groups are active partners in identifying in-stream and out-of-stream water availability solutions and projects.

Performance Measure

- Number of watersheds in the implementation of watershed planning.

Water Resources Program 2011-13 Biennium Budget
By Activities

Operating Budget = $38.0 Million; FTEs = 166.7



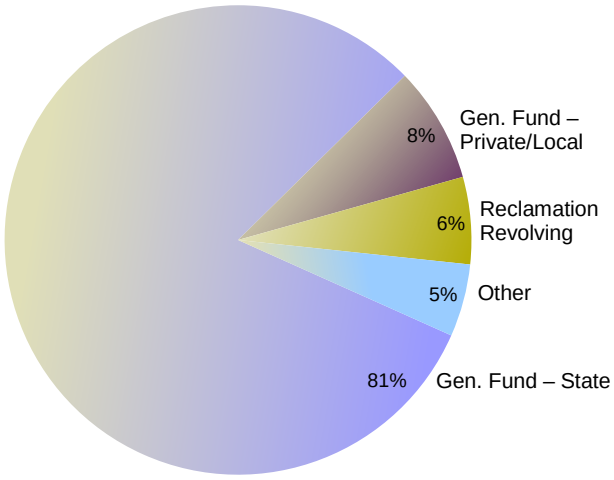
Activities	Dollars	FTEs
Manage Water Rights (A024)	$14,591,172	60.3
Provide Water Resources Data & Information (A044)	7,506,556	33.4
Assess, Set & Enhance Instream Flows (A003)	4,028,429	18.0
Ensure Dam Safety (A011)	2,891,538	12.3
Promote Compliance with Water Laws (A035)	2,824,868	15.2
Support Watershed-Based Water Supply & Resource Stewardship (A067)	1,865,548	9.6
Regulate Well Construction (A053)	1,776,227	9.1
Clarify Water Rights (A001)	1,439,385	6.1
Support Water Use Efficiency (A061)	670,768	2.7
Prepare & Respond to Drought (A029)	388,000	0.0
Water Resources Operating Budget Total	**$37,982,491**	**166.7**

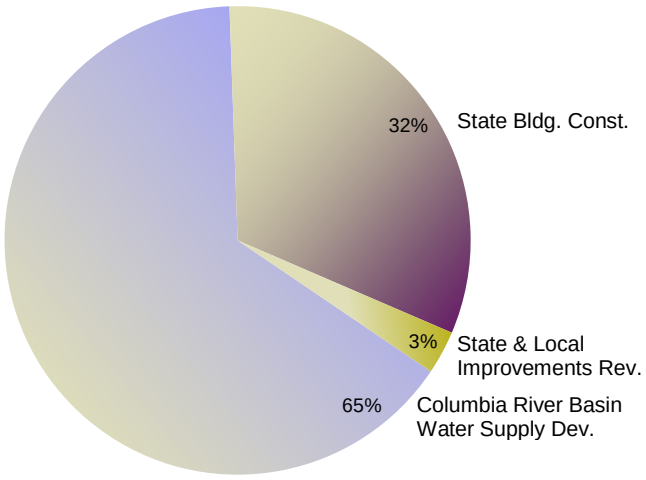
Water Resources Program 2011-13 Biennium Budget
By Fund Source

Operating Budget = $38.0 Million

Capital Budget = $77.8 Million

FTEs = 166.7





Other = Water Supply Facilities – Referendum 38 (1.01%),General Fund – Federal (0.98%), Basic Data (0.82%), State Emergency Water Projects Revolving (0.71%), Water Rights Processing (0.36%), State Drought Preparedness (0.31%), and Water Rights Tracking System (0.11%).

Operating Fund Sources	Amount	Uses
General Fund – State (001)	$30,915,952	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.
General Fund – Private/Local (001)	3,122,184	Instream flow projects, water acquisition, & cost reimbursement contracts for water rights processing.
Reclamation Revolving (027)	2,315,268	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 & contract with the U.S. Geological Survey for stream gauging data collection & studies.
Water Supply Facilities – Referendum 38 (072)	384,191	Staff support for grants & loans for the improvement and/or construction of agricultural water supply facilities. Technical assistance to irrigation districts. Operation & maintenance of Zosel Dam (Lake Osoyoos in Okanogan County).
General Fund – Federal (001)	370,654	Dam safety scanning project & guidelines, Yakima River Enhancement liaison, Spokane Valley Rathdrum Prairie Aquifer Study.
Basic Data (116)	310,000	Pass through to the U.S. Geological Survey for stream gauging data collection & studies.

State Emergency Water Projects Revolving (032)	270,000	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)	136,000	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.
State Drought Preparedness (05W)	118,000	Grants/loans for drought related agricultural & municipal water supply facilities projects. Purchase & lease of water rights to improve stream flows in fish critical streams.
Water Rights Tracking System (10G)	40,242	Continued development, implementation, & management of a water rights tracking system, including a mapping system & database. Enhancements increase public access to water right data.
Operating Budget Total	**$37,982,491**	
Capital Fund Sources		
Columbia River Basin Water Supply Development (10P)	$50,697,000	Capital new appropriations and re-appropriations support grants for feasibility studies & construction of storage & water conservation projects, along with purchase or leases of water rights.
State Building Construction (057)	24,791,778	New appropriations & 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 & implementation, Sunnyside Valley Irrigation District conservation projects, & the Yakima River Basin Water Storage Feasibility Study.
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	2,272,000	Grants/loans for agricultural water supply facilities. Grants for on-farm water use efficiency improvements, water conveyance improvements, & storage studies.
Capital Budget Total	**$77,760,778**	
Water Resources Operating & Capital Budget Total	**$115,743,269**	

Agency Administration Program

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Ecology collects organic waste material generated by employees. The organic waste is put through a composting process using worms. This results in an organic compost material used in landscaping at the Lacey building. Above, Ecology's Steve Adams checks for odor in landscaping material.

Program Mission

The mission of the agency Administration Program is to direct and sustain Ecology's effort to accomplish its mission: *To protect, preserve, and enhance Washington's environment, and promote the wise management of the people's air, land, and water for the benefit of 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 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 changes.

Authorizing Laws

- *RCW 43.21A, Department of Ecology* – In 1970, this law created the Department of Ecology to consolidate water, air, solid waste, and other environmental management, protection and development programs authorized by the Legislature.
- *RCW 43.21M, Integrated Climate Change Response Strategy*
- *RCW 70.235, Limiting Greenhouse Gas Emissions*
- *RCW 80.80, Greenhouse Gas Emissions*

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

Facilities

We are working closely with other natural resource agencies to pursue co-location opportunities. Our goal is to site offices where we can better serve our customers, while saving money by sharing space and investing in partnerships with other agencies that do work related to Ecology's.

We are still working on solutions to our facility problem at our Northwest Regional Office in Bellevue. The current building continues to be prone to flooding during heavy rains, which affects agency operations and indoor air quality.

The state's six-year facilities plan notes the need to move the Central Regional Office in Yakima. This is a shared facility with Labor and Industries and the Department of Agriculture. The current facility has a number of ongoing maintenance issues, and is currently in foreclosure.

Records Management
Ecology is implementing lifecycle records management for paper and electronic records. We are reworking Ecology records retention schedules to line up with today's business needs and set us up for future initiatives. This effort includes training for every person in the agency to create consistency, simplify records series, minimize storage and handling, and streamline searching. We are also training all staff in public disclosure requirements and processes to be more efficient and diligent in responding to the more than 18,000 Public Records Act requests we get each year.

Human Resources Management
Ecology will continue to carry out its strategic plan for developing and managing its workforce for optimal performance and achieving Ecology and program goals by:

- Implementing the new Ecology employment center website. This site provides managers, supervisors, and employees with information, guidance, and instruction about key employment activities and processes for workforce and position planning; making employment decisions; employee retention; succession management; and career planning.
- Renewing and expanding our interagency and intergovernmental partnerships for recruiting highly qualified, diverse candidates.
- Assessing our selection and hiring process. We will develop new methods to streamline the process and further improve the quality and diversity of our candidate pools.
- Expanding the scope of our training program. We will provide tools for managers, supervisors, and employees to take on emerging issues from the economic recession, including workload management and Lean processes.

Statewide Time and Attendance Reporting System
The Fiscal Office will continue working with the Department of Transportation to develop a new statewide tool to automate time and attendance reporting. The tool will allow employees to self-enter time and attendance, route to supervisor for approval, and feed the information into the existing enterprise Human Resources Management System (HRMS). This system will enforce the terms of applicable collective bargaining agreements and perform and/or support payroll cost allocation.

General Fund Shortfall
Since the start of the 2007-09 biennium, Ecology's near General Fund-State (GF-S) has been reduced by $35.6 million, or nearly 27 percent. About 22 percent of our 2011-13 Operating Budget is supported by GF-S, with the remainder coming from dedicated environmental accounts and federal dollars. In addition to the GF-S reductions, $255 million has been transferred from dedicated environmental accounts, managed by Ecology, to the GF-S.

Consolidating Services

- Ecology is consolidating application and data servers to position itself to move to the new state data center. We have completed the migration to shared services electronic mail, hosted at the new Consolidated Technology Services.
- Ecology is working with the new Department of Enterprise Services to consolidate vehicle fleet resources, data, and management responsibilities.

Regulatory Improvement

- The State Auditor's Office is conducting a performance audit on streamlining business regulations this biennium. The audit is focused on best practices for streamlining regulations and permitting and inspections. Ecology is one of 26 agencies in the audit. We will be implementing the best practice recommendations based on the State Auditor's Office findings.
- To achieve our mission, Ecology is making sure our work is prioritized and focused on direct benefits to the environment and human health protection. The principles and practices of tools such as Value Stream Mapping and Lean are being applied to targeted regulatory processes. The intent is to identify and reduce non-value added work that adds time and costs and doesn't contribute to environmental or human health protection or the final products or services we deliver to our customers. We are building our capacity to support continuous process improvement as we learn and do more with Lean.

Environmental Education

Ecology is launching new communication and education resource-sharing partnerships and strengthening existing partnerships. Our aim is to maintain a high level of service, transparency, and accountability to the public, to communities, and to Washington businesses that want to operate in a way that is safe for people and the environment. Examples of our communication and education partnerships include:

- Working with the carpet cleaning industry, we're providing easy-to-use information to carpet cleaning businesses on how to dispose of their leftover wastewater (laden with chemicals) in way that is safe for people, the businesses themselves, and the environment.
- Working with the City of Seattle and South Seattle Community College, we're providing free car-repair workshops so Puget Sound residents can learn how to prevent engine oil, transmission fluid, and other pollutants from leaking onto the ground and into streams, lakes and the Sound.
- Ecology signed a cooperative agreement with the U.S. Coast Guard 13th District, spelling out how the two agencies work together in communication and public notification about oil spills and related incidents.

In 2011-13, we will continue to improve our use of rapidly changing communication technologies to gather and share information. This means understanding our customers and what they need, and it means constantly improving delivery of information so it's easily accessible to them when they need it.

Climate Policy

Climate change poses a significant threat to Washington's economy, but also offers the state enormous new economic and job creation opportunities. These new opportunities will require Washington to act quickly to reduce our greenhouse gas emissions and lead the transformation to a new low-carbon economy. State law requires reductions in emissions of greenhouse gases, as well as efforts to prepare for and respond to climate changes already under way. On-the-ground work in this area is being moved from the Climate Policy group in Administration to Ecology's Air Quality Program. The work on adaptation/response, state agencies climate leadership, and related activities (such as adaptation coordination/collaboration with federal, regional, state, tribal and local governments, universities, and others) remains with the Climate Policy group in Administration.

Activities & Results

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

Climate Policy Group

The Climate Policy Group was formed to implement a strategic priority for Ecology and the state. The group provides leadership, policy support, and coordination on state and federal climate change legislation, policies, regulations, and programs. It works closely with Ecology's Air Quality Program and other environmental programs, Washington's Energy Office, other state agencies, other states and Canadian provinces, stakeholder groups, and the public.

Communication and Education

Ecology carries out state and federally mandated rule-making, policy development, enforcement actions, toxic site cleanup, and other work that demands substantial public information and public involvement.

Ecology is committed to being transparent, open, and accountable to the public, policy leaders, news media, and the communities we serve. The Communication and Education Office provides needed support to Ecology leadership and our environmental programs to accomplish this.

The public relies on rapidly changing communication technologies to gather, understand, and share information. This requires public agencies to constantly improve delivery of needed information to our customers. The Communication and Education Office helps Ecology respond to this need. The office coordinates Ecology's use of the Internet and other technologies, with a focus on understanding our customers, what they need, and how to make information easily accessible to them at all times.

The office also leads Ecology's participation in education partnerships with local governments, community groups, schools, and universities to help Washington residents make informed choices about using and protecting Washington's waters and air, reducing toxic threats, and reducing risks related to climate change.

Communication and Education provides round-the-clock communication and outreach support for oil and hazardous chemical spills. This includes being available 24/7 to provide timely information to the media and the public and, when they're established, to staff multi-jurisdiction incident response teams.

Governmental Relations

The Governmental Relations Office provides leadership, policy support, and coordination for federal and state legislative issues, as well as issues that affect local governments, tribes, and British Columbia. This office includes the Rules Unit, which provides rule development assistance and coordination, along with economic analysis, including Small Business Economic Impact Statements and cost/benefit studies. They also coordinate performance measurement and develop environmental indicators. This office is responsible for leading the agency's Lean process improvement work.

Human Resources

The Human Resources Office provides a full scope of human resource management and consulting services, including recruitment, labor relations, classification and compensation, performance management, training and development, employee safety and wellness, layoffs, personnel records management, and personnel action processing.

Human Resources plays a key role in ensuring Ecology complies with federal and state employment laws, civil service rules, and agency policy. The Human Resources Office also manages implementation and administration of collective bargaining agreements, including bargaining, contract compliance, handling grievances, and arbitration.

The office develops and manages Ecology's Affirmative Action Plan and ensures equal employment opportunity, and sponsors and coordinates activities that encourage diversity. This includes helping create a supportive work environment that reflects the diversity of the communities we serve.

Regional and Field Offices

Although these offices are budgeted in Agency Administration, their work is mostly connected with environmental priorities.

Each of Ecology's four regional offices (Lacey, Yakima, Spokane, and Bellevue) and field offices (Bellingham and Vancouver) has executive management representatives and provides core administrative support to regional office staff. This support includes reception, mail, records management, complaint tracking, regional fleet management, and State Environmental Policy Act (SEPA) functions. The Regional Directors in these offices help local communities and provide cross-program coordination and management of large, multiple-program environmental reviews and permitting projects.

Executive, Financial, Administrative, and Information Technology Services

Ecology leadership comes from the executive office.

Financial Services provides centralized financial support in accounting, budget, contracts, payroll, fiscal notes, audits, purchasing, and inventory.

Administrative Services maintains Ecology's central records, facilities, and vehicles. They respond to public records requests, provide mail services, and manage extensive library resources at headquarters and in the regions in the form of books, periodicals, and research.

The Information Technology Services Office includes desktop and network services, application development, and data planning. They guide information technology policy and strategic direction for the agency.

Agency Administration is supported by each fund source available to the Department of Ecology. Each fund contributes to Administration in the same percentage that each fund contributes to the total of the environmental programs' salaries and benefits.

Expected Results

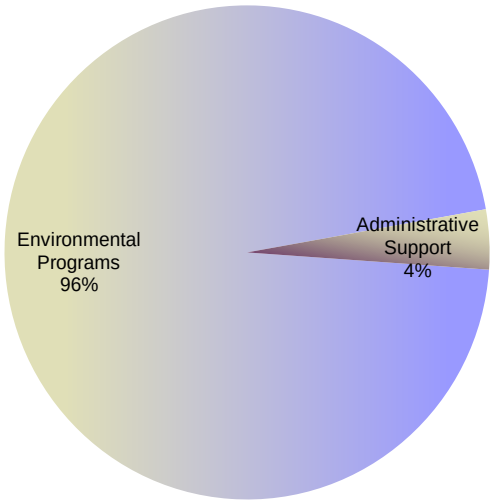
- Ecology managers, the Governor, State Auditor, Office of Financial Management, and the Legislature have confidence in Ecology and our financial information, and can use it to make crucial decisions affecting the environment.
- The public is informed about the work Ecology does, is educated about its role in environmental protection, and understands the policies we are developing and the opportunities available to influence our decisions.
- Washington's environmental laws and rules are improved through Ecology's relationships with

legislators, local governments, businesses, Native American tribes, and environmental and citizen groups.
- Ecology managers and supervisors have the highest-quality communication, performance management, hiring, and leadership skills.
- Ecology's work environment reflects the diversity of the communities we serve.
- Ecology staff get reliable, secure, and high quality desktop support and network services.
- Customers have easy access to Ecology information.
- Facilities and vehicles are well-maintained, safe, and efficient.
- Requestors of public records are provided responsive records in a timely manner.
- Adopted federal legislation reflects Washington's priorities (e.g., transition to a clean energy future, a level playing field for Washington businesses, recognition of our unique and clean energy portfolio).
- An integrated climate change strategy is available to better enable state and local agencies, public and private businesses, non-governmental organizations, and individuals to prepare for, address, and adapt to the impacts of climate change.

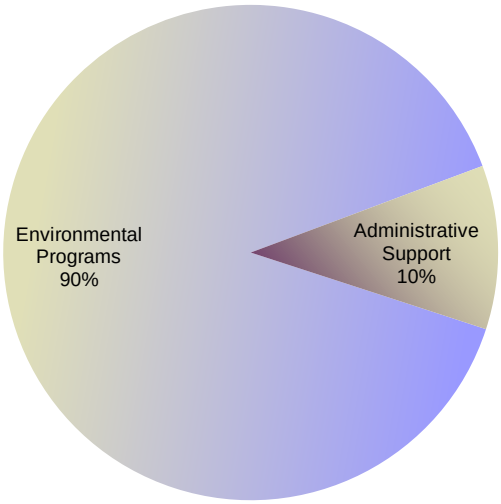
Performance Measures
- Number of agency audit findings.
- Percent of Ecology-administered accounts with a positive cash balance.
- Metric tons of Ecology greenhouse gas emissions.
- Number of pages printed and copied.
- Gallons of fuel used in Ecology vehicles and equipment.
- Percent of employees who are accident-free.
- Diversity goal percentage for the total agency.
- Percent of employees meeting the discrimination and sexual harassment training requirements.
- Percent of vacancies filled within 45 days.

Administration as a Percentage of Ecology's 2011-13 Budget

Operating & Capital Budget



Operating Budget Only



Environmental Programs:

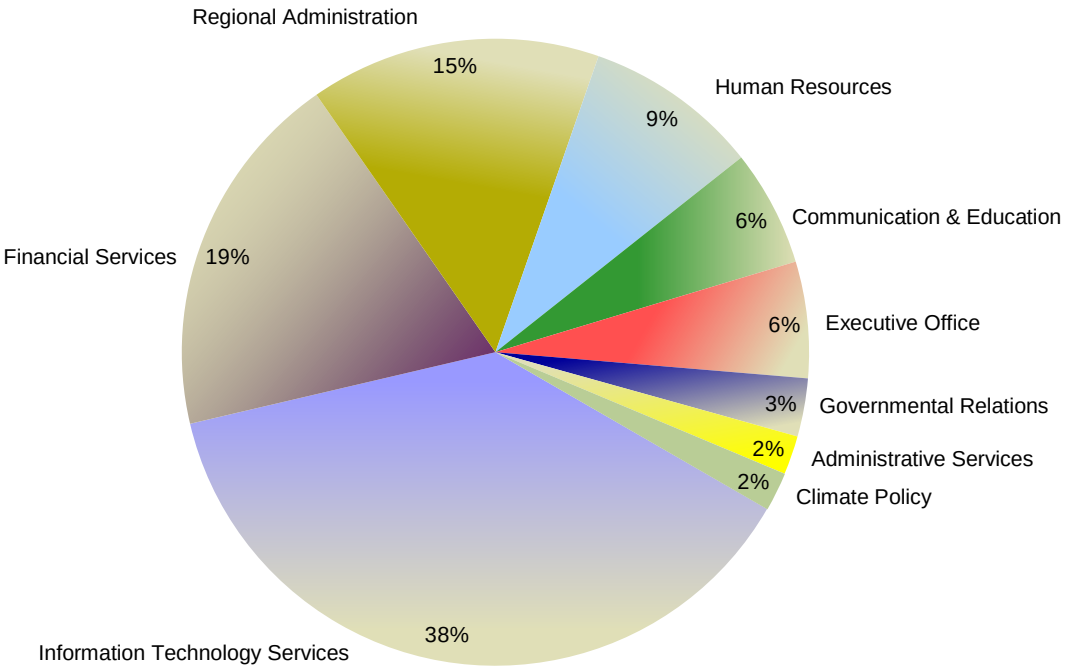
- Water Quality
- Waste 2 Resources
- Toxics Cleanup
- Water Resources
- Shorelands & Environmental Assistance
- Air Quality
- Environmental Assessment
- Hazardous Waste & Toxics Reduction
- Nuclear Waste
- Spill Prevention, Preparedness & Response

Program A – ***includes Ecology central business services:***

- Information Technology Services (Network, Desktop, Applications, Data Management)
- Financial Services (Budget, Fiscal, Purchasing)
- Regional Directors & Support
- Human Resources
- Communications & Education (Earning Public Trust)
- Executive (Director, Special Assistants, Support Staff, Tribal Relations)
- Administrative Services (Records, Library, Facilities, Transportation)
- Governmental Relations (Support for Rule-Making, Performance & Recognition)
- Climate Policy

Administration Program 2011-13 Biennium Operating Budget By Activities

Operating Budget = $44.4 Million; FTEs = 213.0



Activities	Dollars	FTEs
Information Technology Services	$16,723,838	69.8
Financial Services	8,705,484	49.3
Regional Administration	6,628,843	40.2
Human Resources	3,968,015	19.4
Communication & Education	2,698,577	12.2
Executive Office	2,554,032	8.8
Governmental Relations	1,419,831	6.0
Administrative Services	952,763	4.5
Climate Policy	753,632	2.8
Agency Administration Operating Budget Total	**$44,405,015**	**213.0**

Administration Program 2011-13 Biennium Budget
By Fund Source (FTEs = 213.0)

Operating Fund Sources	Amount
State Toxics Control (173)	$14,195,402
General Fund – State (001)	12,521,891
General Fund – Federal (001)	6,432,764
Water Quality Permit (176)	4,754,283
Local Toxics Control (174)	1,037,996
Oil Spill Prevention (217)	826,484
Hazardous Waste Assistance (207)	779,378
Waste Reduction, Recycling & Litter Control (044)	751,050
Underground Storage Tank (182)	500,282
Air Operating Permit (219)	378,201
Air Pollution Control (216)	328,793
Reclamation Revolving (027)	319,194
Water Pollution Control Revolving – Federal (727)	276,384
Biosolids Permit (199)	267,608
Flood Control Assistance (02P)	241,077
Worker & Community Right-to-Know (163)	233,121
Electronic Products Recycling (11J)	88,637
Site Closure (125)	81,002
State Toxics Control – Private/Local (173)	70,459
Freshwater Aquatic Weeds (222)	60,705
General Fund – Private/Local (001)	58,406
Product Stewardship Programs (16T)	56,825
Water Pollution Control Revolving – State (727)	55,410
State & Local Improvements Revolving – Water Supply Facilities (Referendum 38) (072)	38,809
Wood Stove Education & Enforcement (160)	30,725
Aquatic Algae Control (10A)	14,371
Water Rights Tracking System (10G)	5,758
Operating Budget Total	**$44,405,015**

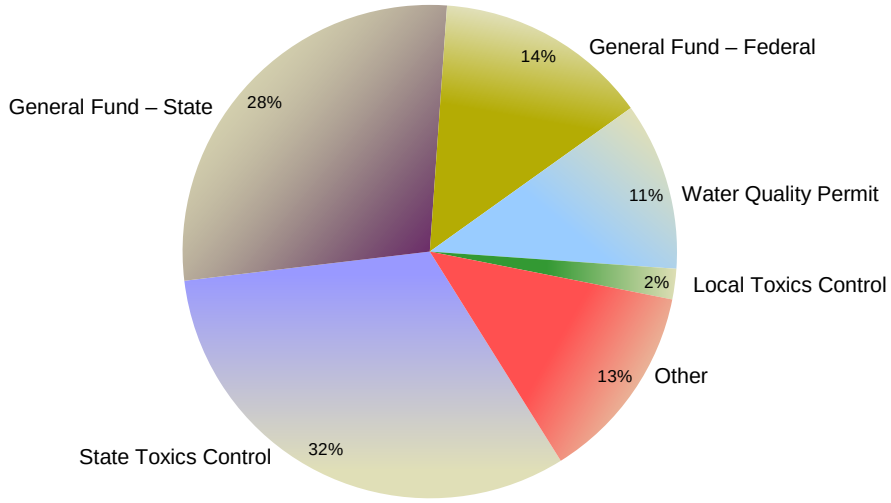
Capital Fund Sources	Amount
Cleanup Settlement (15H)	$559,479
State Building Construction (057)	297,151
Local Toxics Control (174)	198,449
Columbia River Basin Water Supply Development (10P)	157,337
Water Pollution Control Revolving – Federal ARRA (727)	130,673
General Fund – Federal (001)	27,375
Waste Tire Removal (08R)	22,817
State Toxics Control (173)	9,051
Air Pollution Control (216)	4,354
Capital Budget Total	**$1,406,686**

Agency Administration Operating & Capital Budget Total	**$45,811,701**

Note: Agency Administration is supported by each fund source available to the Department of Ecology. Each fund contributes to Agency Administration in the same percentage that each fund contributes to the total of the environmental programs' salaries and benefits.

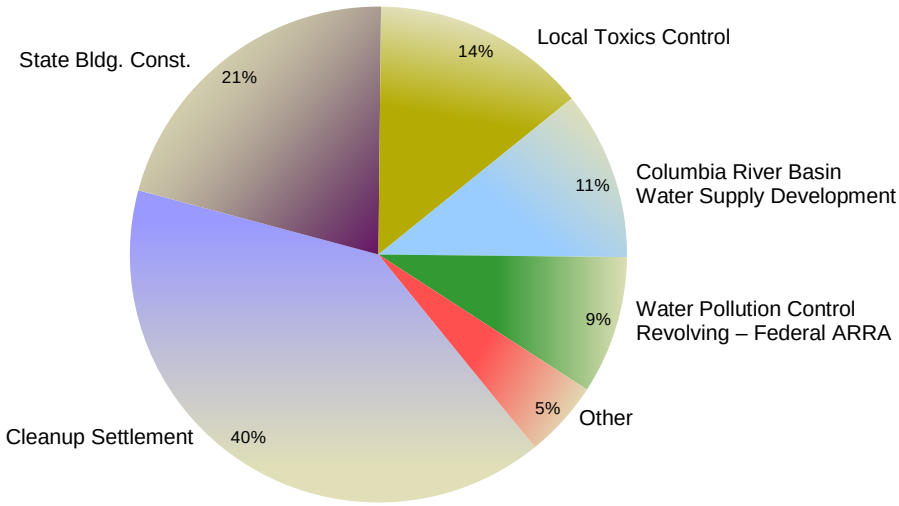
Agency Administration Program 2011-13 Biennium Budget By Fund Source

Operating Budget = $44.4 Million

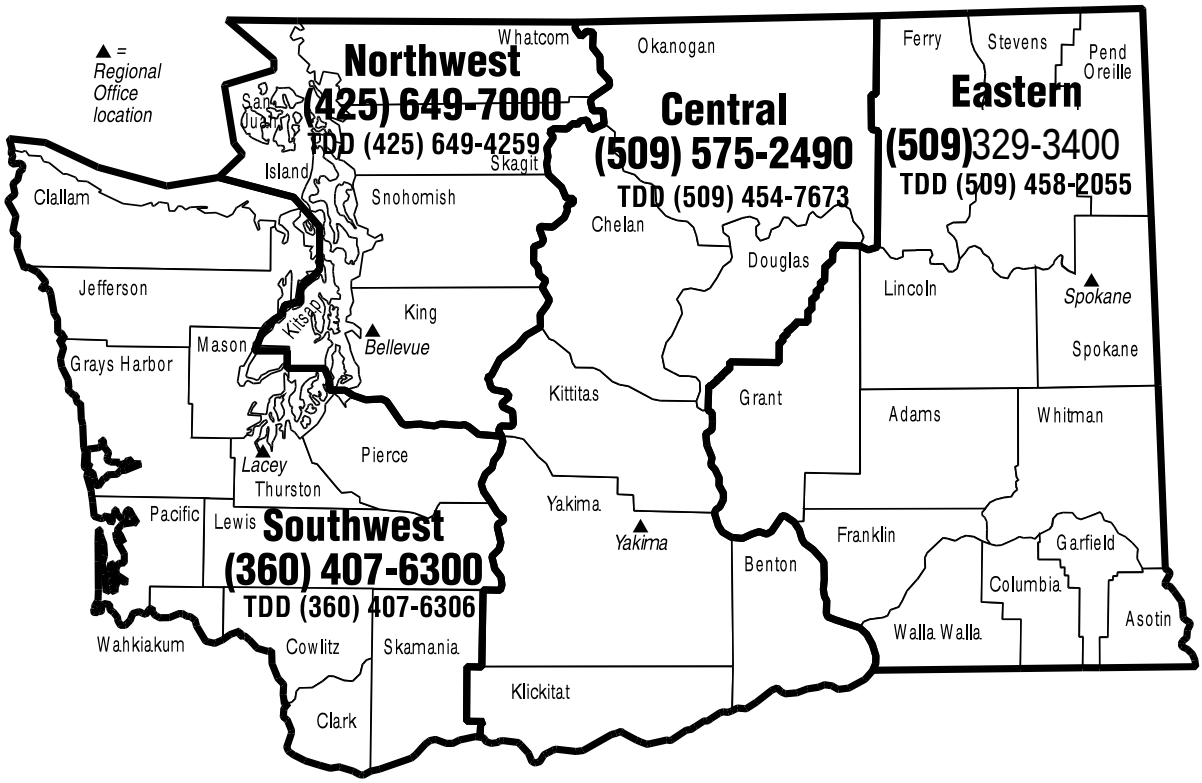


Other = Oil Spill Prevention (1.86%), Hazardous Waste Assistance (1.76%), Waste Reduction, Recycling & Litter Control (1.69%), Underground Storage Tank (1.13%), Air Operating Permit (0.85%), Air Pollution Control (0.74%), Reclamation Revolving (0.72%), Water Pollution Control Revolving – Federal (0.62%), Biosolids Permit (0.60%), Flood Control Assistance (0.54%), Worker & Community Right-to-Know (0.52%), Electronic Products Recycling (0.20%), Site Closure (0.18%), State Toxics Control – Private/Local (0.16%), Freshwater Aquatic Weeds (0.14%), General Fund – Private/Local (0.13%), Product Stewardship Programs (0.13%), Water Pollution Control Revolving – State (0.12%), State & Local Improvements Revolving - Water Supply Facilities (Referendum 38) (0.09%), Wood Stove Education & Enforcement (0.07%), Aquatic Algae Control (0.03%), and Water Rights Tracking System (0.01%).

Capital Budget = $1.4 Million



Other = General Fund – Federal (1.95%), Waste Tire Removal (1.62%), State Toxics Control (0.64%), and Air Pollution Control (0.31%).



Ecology Headquarters & Regional Offices

Headquarters
300 Desmond Drive SE
Lacey, WA
360.407.6000

PO Box 47600
Olympia, WA 98504-7600

Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452
425.649.7000

Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, WA 98902-3452
509.575.2490

Southwest Regional Office
300 Desmond Drive SE
Lacey, WA
360.407.6300

PO Box 47775
Olympia, WA 98504-7775

Eastern Regional Office
N. 4601 Monroe Street, Suite 202
Spokane, WA 99205-1295
509.329.3400

Ecology Field Locations

Bellingham Field Office
1440 10th Street, Suite 102
Bellingham, WA 98225-7028
360.715.5200

Vancouver Field Office
2108 Grand Boulevard
Vancouver, WA 98661-4622
360.690.7171

Ecology Program Locations

Richland Nuclear Waste Office
Ecology Nuclear Waste Program
3100 Port of Benton Boulevard
Richland, WA 99354-1670
509.372.7950

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 E
Port Orchard, WA 98366
360.871.8800

Laboratory Accreditation Office
2350 Colchester Drive
PO Box 488
Manchester, WA 98353-0488
360.895.6145

Environmental Assessment Program Operations Center
8270 28th Court, NE
Lacey, WA 98516-7148
360.480.9224

Methow Valley Water-Master Office
134 Riverside Avenue
Winthrop, WA 98862
509.996.8273

Walla Walla Water-Master Office
Walla Walla Community College
500 Tausick Way
Walla Walla, WA 99362
509.329.3400

Wenatchee Water-Related Services
303 South Mission Street, Suite 300
Wenatchee, WA 99362-6142
509.575.2490

Ecology's Data – Where does it come from?

This publication relies on financial data for tables and graphs. Data is based upon the initial 2011-13 biennial operating and capital budgets. The following identifies those sources.

Agency Level

*Operating**

Operating funds by account and program are based upon the enacted biennial budget appropriations, and approved allotments (spending plans) from the Office of Financial Management (OFM).

Operating funds pass-through are based upon allotments for grants as approved by OFM.

**Note: Operating funds do not include $1,550,000 and 7.0 FTEs that were in the budget for the consolidation of the Pollution Liability Insurance Agency and the Columbia River Gorge Commission with Ecology, because these consolidations were not approved by the legislature.*

Capital

Capital funds by account and program are based upon enacted biennial budget appropriations and OFM approved allotments. It includes new appropriations and reappropriations. It does not include unallotted 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 upon allotments for grants and contracts. It includes new appropriations and reappropriations. It does not include unallotted funds.

Program Level

Operating

Operating funds by activity are based upon activity inventory funding amounts as approved by OFM.

Operating funds by account are based upon OFM approved allotments.

Capital

Capital funds by account are based upon OFM approved allotments. It includes new appropriations and reappropriations. It does not include unallotted funds.

Ecology Administered Accounts

The Department of Ecology uses 43 accounts and is the administering agency for 40 of these accounts. This section is an inventory of the accounts Ecology administers. 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. There are four new accounts since the previous version of this publication: 16T, 16V, 18B, and 296. These new accounts are the result of legislation enacting environmental regulations.

02P – Flood Control Assistance Account
023 – Special Grass Seed Burning Research Account
027 – Reclamation Account
032 – State Emergency Water Projects Revolving Account
044 – Waste Reduction, Recycling, and Litter Control Account
05W – State Drought Preparedness Account
051 – State and Local Improvements Revolving Account – Waste Disposal Facilities (Ref. 26)
055 – State and Local Improvements Revolving Account – Waste Disposal Facilities (Ref. 39)
07C – Vessel Response Account
072 – State and Local Improvements Revolving Account – Water Supply Facilities (Ref. 38)
08R – Waste Tire Removal Account
10A – Aquatic Algae Control Account
10G – Water Rights Tracking System Account
10P – Columbia River Basin Water Supply Development Account
11J – Electronic Products Recycling Account
11W – Water Quality Capital Account
116 – Basic Data Account
125 – Site Closure Account
15H – Cleanup Settlement Account
160 – Wood Stove Education and Enforcement Account
16T – Product Stewardship Programs Account
16V – Water Rights Processing Account
173 – State Toxics Control Account
174 – Local Toxics Control Account
176 – Water Quality Permit Account
18B – Columbia River Basin Taxable Bond Water Supply Development Account
182 – Underground Storage Tank Account
194 – Environmental Excellence Account
199 – Biosolids Permit Account
207 – Hazardous Waste Assistance Account
216 – Air Pollution Control Account
217 – Oil Spill Prevention Account
219 – Air Operating Permit Account
222 – Freshwater Aquatic Weeds Account
223 – Oil Spill Response Account
258 – Metals Mining Account
296 – Columbia River Basin Water Supply Revenue Recovery Account
408 – Coastal Protection Account
500 – Perpetual Surveillance and Maintenance Account
727 – Water Pollution Control Revolving Account

Fund decriptions in alphabetical order.

Air Operating Permit Account (Fund #219) (RCW 70.94.015)
Fund Manager: Air Quality Program. Contact Paige Boulé 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 emissions and complexity of source.

Air Pollution Control Account (Fund #216) (RCW 70.94.015)
Fund Manager: Air Quality Program. Contact Paige Boulé 360.407.6646

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

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

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.

Aquatic Algae Account (Fund #10A) (RCW 43.21A.667)

Fund Manager: Water Quality Program. Contact Vince Chavez 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.

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

Fund Manager: Waste 2 Resources Program. Contact Jessica S. Moore 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, providing technical assistance and supporting overhead expenses that are directly related to these activities.

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 $880.46 plus an additional fee for each residential equivalent. The fee for each residential equivalent ranges from $0.075 to $0.315, depending on the type and size. New biosolids facilities also pay a one-time review fee of $2,641.38.

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

Fund Manager: Toxics Cleanup Program. Contact Randy Newman 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 Kitty Hjelm 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 longterm effects of oil spills, and the development and implementation of aquatic land geographic information systems.

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

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

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: Over $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: Over $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.)

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

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.

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

Fund Manager: Waste 2 Resources Program. Contact Jessica S. Moore 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 unit market share. Depending on the market for the time period in question, manufacturers may move from one tier to another. It is a seven tier structure, and the fee ranges from $0 in tier-7 to $41,200 in tier-1.

Environmental Excellence Account (Fund #194) (RCW 43.21K.170)

Fund Manager: Waste 2 Resources Program. Contact Jessica S. Moore 360.407.6996

Purpose: To support innovative pollution reduction products.

Authorized Use: Dormant since fiscal year 2004.

Revenue Source: Fee and voluntary contributions for individually negotiated program agreement proposal.

Flood Control Assistance Account (Fund #02P) (RCW 86.26.007)

Fund Manager: Shorelands and Environmental Assistance Program. Contact Gordon Wiggerhaus 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: $4,000,000 per biennium transfer from State General Fund as required by RCW 86.26.007. For the 2011-13 biennium, the enacted budget changed the transfer to $2,000,000.

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

Fund Manager: Water Quality Program. Contact Vince Chavez 360.407.7544

Purpose: To prevent and control or manage invasive freshwater aquatic weeds.

Authorized Use: Funds are used to 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 Donna Allen 360.407.6561

Purpose: To provide technical assistance and compliance education assistance to hazardous substance users and waste generators.

Authorized Use: Assist select businesses with the development and follow through of plans for reducing hazardous waste. Develop and distribute educational information on waste reduction to all businesses that 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.

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

Fund Manager: Waste 2 Resources Program. Contact Jessica S. Moore 360.407.6996

Purpose: To provide technical assistance to local governments for local solid waste planning and oversight of solid waste facilities. In addition, funds are granted to local governments under the Remedial Action Grant, Public Participation Grant, and the Coordinated Prevention Grant programs. Remedial Action Grants are provided to cleanup hazardous sites throughout Washington State. Remedial Action grant categories include oversight remedial action grants, site hazard assessment grants, integrated planning grants, safe-drinking-water action grants, and area-wide

groundwater remedial action grants. Public Participation Grants (PPGs) pay the costs of technical experts to help citizens understand environmental problems and the cleanup process so they can make informed comments and be involved in the decision making process. Two types of PPGs are available including hazardous-substance-release-site grants and waste management priorities implementation grants. Coordinated Prevention grants fund local government projects that prevent or minimize environmental contamination to comply with state solid and hazardous waste laws and rules. The two types of grants are planning and implementation grants for solid and hazardous waste management and solid waste enforcement grants. Funds are also utilized for the reduction of air toxics found in diesel engine and wood smoke emissions.

Authorized Use: To fund several grant programs including the remedial action grant program, the coordinated prevention 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. 96 percent of the HST revenue is from petroleum products. 53 percent of the total HST revenue is deposited into the Local Toxics Control Account. The other 47 percent goes to the State Toxics Control Account.

Metals Mining Account (Fund #258) (RCW 78.56.080)

Fund Manager: Water Quality Program. Contact Vince Chavez 360.407.7544

Purpose: To consider site-specific criteria in determining a preferred location of tailings facilities of metals mining and milling operations and incorporate the requirements of all known available and reasonable methods in order to maintain the highest possible standards to insure the purity of all waters of the state.

Authorized Use: To assess each active metals mining and milling operation and to cover the costs of required inspections.

Revenue Source: This fee is collected from active metals mining and millings operations. Fees are negotiated individually based on required workload. Fees are annual with a variable charge due to the number and type of inspections required by the Metals Mining Act.

Oil Spill Prevention Account (Fund #217) (RCW 90.56.510)

Fund Manager: Spill, Prevention, Preparedness, and Response Program. Contact Kitty Hjelm 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; development of rules and policies; facility and vessel plan review and approval; spill drills; inspections; investigations; enforcement; interagency coordination; and public outreach and education.

Revenue Source: A four-cent tax on the first possession of each barrel of petroleum imported into and consumed in Washington State.

Oil Spill Response Account (Fund #223) (RCW 90.56.500)

Fund Manager: Spill, Prevention, Preparedness, and Response Program. Contact Kitty Hjelm 360.407.7454

Purpose: To provide funds for responding to and cleaning up oil spills when state response costs are expected to exceed $50,000.

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 petroleum imported into and consumed in Washington State.

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.)

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

Fund Manager: Waste 2 Resources Program. Contact Jessica S. Moore 360.407.6996

Purpose: To provide a convenient and environmentally sound product stewardship program for mercury-containing lights.

Authorized Use: Oversight of mercury containing lights collection and recovery.

Revenue Source: Producers of mercury containing lights are required to pay a fee of $5,000 per year.

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, and conduct investigations and natural resource hydrographic, topographic, river, underground water, mineral and geological surveys for potential hydro power projects as provided in RCW 90.16.060. In addition, funds are used to support staff work at the Departments of Ecology and Fish and Wildlife on Federal Energy Regulatory Commission hydro facility relicensing.

Revenue Source: Fees for well drilling and well driller's license (RCW 18.104.055) and for power licensing (RCWs 90.16.050 and RCW 90.16.060).

Site Closure Account (Fund #125) (RCW 43.200.080)

Fund Manager: Nuclear Waste Program. Contact Steve Moore 360.407.7212

Purpose: To fund final closure and decommissioning the Commercial Low Level Radioactive Waste Disposal site at Hanford.

Authorized Use: Funds have been used for an environmental impact study, a site investigation, design of a cover for filled trenches, and will be used for final closure activities.

Revenue Source: Users of the facility and site pay permit fees based on disposal volumes. Revenue also comes from repayment of a $13.8 million fund transfer from the Site Closure Account to the State General Fund which started in July 2008. Payment amounts are increased annually by the Implict Price Deflator. (This account retains interest.)

Special Grass Seed Burning Research Account (Fund #023) (RCW 70.94.656)

Fund Manager: Air Quality Program. Contact Paige Boulé 360.407.6646

Purpose: To reduce air pollution from the burning of grasses grown for seed.

Authorized Use: Funds are used for research on alternatives to grass seed field burning.

Revenue Source: Grass seed field burning permit fees are limited to exceptions so funds are on the decline. Grass seed field burning was banned in the mid-1990s.

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.

State and 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 agriculturlal 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 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. The last two state drought declarations were in 2001 and 2005. 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. 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.

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

Fund Manager: Toxics Cleanup Program. Contact Randy Newman 360.407.7219

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 law.

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

Revenue Source: The State Toxics Control Account (STCA) 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 primary source of revenue for the STCA. 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 47 percent of the Hazardous Substance Tax is deposited in the STCA. The other 53 percent is deposited in the Local Toxics Control Account. In addition to funds from the Hazardous Substance Tax, the STCA also accrues revenue through Cost Recovery, the process by which Ecology recovers expenditures or obtains reimbursements for its cost of providing cleanup oversight and approval for the cleanup of contamination at properties under a decree or order. Another method is cost recovery for technical assistance and the Voluntary Cleanup Program (VCP), the action where Ecology collects costs from persons who request review of a planned or completed cleanup to determine whether or not there should be any further action taken. Other revenue include fines and penalties issued against persons or businesses which have not complied with environmental contamination and cleanup laws and fees collected from facilities that manage mixed waste.

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

Fund Manager: Toxics Cleanup Program. Contact Randy Newman 360.407.7219

Purpose: To prevent underground storate 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 $160 per tank.

Vessel Response Account (Fund #07C) (RCW 90.56.335)

Fund Manager: Spill, Prevention, Preparedness, and Response Program. Contact Kitty Hjelm 360.407.7454

Purpose: The original purpose was to provide funds for emergency vessel towing to prevent vessel casualties and major oil spills. Currently it is being used to extend the Invasive Species Council.

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 statury changes changed the distribution to the Transportation 2003 (Nickel) Account starting in FY 2008.

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

Fund Manager: Waste 2 Resources Program. Contact Jessica S. Moore 360.407.6996

Purpose: To control and remove litter and develop public education programs concerning the litter problem. Also, to recover and recycle waste materials related to litter.

Authorized Use: Litter prevention and pickup (through Ecology Youth Corps, and contracts and grants with local and other state agencies), litter campaign, litter survey,

administration of litter program, recycle hotline, technical assistance in waste reduction, recycling, and pollution prevention initiatives. The enacted 2011-13 budget transferred $7,000,000 to the State General Fund. Proviso language is included in the 2011-13 biennial budget bill that limits the use of the remaining funds as follows: "The department may not spend waste reduction, recyclng, and litter control account funds to support the following activities: The *Beyond Waste* plan, work on national solid waste recycling issues, work on contstruction and demolition recycling and green building alternatives, education programs including the green schools initiative, and management of the 1-800-recycle hotline and database on school awards. Waste reduction, recycling, and litter account control funds must be prioritized to support litter pickup using correctional crews, regulatory programs, and technical assistance to local governments."

Revenue Source: Wholesalers and retailers in Washington State pay a litter tax of $0.15 per $1,000 of gross profit as set in statute for all sales of food for humans or pets, cigarettes and tobacco products, soft drinks, carbonated water, beer, wine, newspapers, magazines, household paper and paper products, glass containers, metal containers, plastic or fiber containers made of synthetic materials, cleaning agents, and toiletries.

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

Fund Manager: Waste 2 Resources Program. Contact Jessica S. Moore 360.407.6996

Purpose: To provide funding to local governments for clean up of unauthorized waste tire piles and implementing measures that prevent future accumulations of unauthorized waste tire piles.

Authorized Use: To accomplish the following: administer and manage interagency contracts with local governments to clean up and prevent unauthorized tire piles; establish and maintain a website to disseminate information about preventing tire piles; tracking current projects; and enforcement of waste tire disposal regulations.

Revenue Source: A portion of the $1 per tire fee that is collected when new replacement tires are purchased. This fee is collected from consumers making new tire purchases.

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.)

Water Quality Capital Account (Fund #11W) (RCW 70.146HB.1137)

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 so the source of future funding for Fund 11W is unclear. For the 2011-13 biennium, the Water Quality Capital Account funds only Centennial Clean Water capital re-appropriations.

Water Quality Permit Account (Fund #176) (RCW 90.48.465)

Fund Manager: Water Quality Program. Contact Vince Chavez 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 permitees; 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: $79-150,400 for industries; $1.44-$2.07 (per residential equivalent) for municipalities; and $100-$36,059 for general permits (FY 2012). Fees are subject to I-601 requirements and they 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 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.

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.

Wood Stove Education and Enforcement Account (Fund #160) (RCW 70.94.483)

Fund Manager: Air Quality Program. Contact Paige Boulé 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.