



Design and Production	Use and Reuse	End-of-Life Management
<ul style="list-style-type: none"> <li>• Compliance with Toxics in Packaging, Children’s Safe Products Act, Better Brakes, and other product laws</li> <li>• Green chemistry</li> <li>• Alternatives Assessment Guide</li> <li>• Comprehensive lean and engineering assistance to businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Pollution prevention planning</li> <li>• Environmentally preferred (green) purchasing</li> <li>• Technical assistance and information on safe use of chemicals and toxic products</li> <li>• Local Source Control Partnership</li> </ul>	<ul style="list-style-type: none"> <li>• Pollution prevention planning</li> <li>• Hazardous waste (HW) compliance</li> <li>• Permitting HW facilities</li> <li>• Recycling technical assistance</li> </ul>

# Hazardous Waste and Toxics Reduction Program Plan

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## HWTR Program Mission

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

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

## Environmental Threats

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

When hazardous substances are no longer usable, they become hazardous wastes—or “dangerous wastes,” as they are known in Washington.<sup>1</sup> Washington's regulation of dangerous waste provides environmental protection not included in the federal hazardous waste rules. Our more protective standards help reduce spills, protect workers, and safeguard businesses that rely on a clean environment for their livelihood. They also create recycling opportunities for Washington businesses. For more details, see State Dangerous Waste Regulations Protect Human Health and the Environment at <https://fortress.wa.gov/ecy/publications/publications/1304004.pdf>.

When dangerous wastes are mismanaged, they get into water and soil where they can harm human health and the environment or cause costly cleanup sites. While Washington has had 6,344 toxic sites cleaned up or reported cleaned up in the state, approximately 250 new sites are reported each year. Every year there are more new sites being reported than sites that have completed cleanups. The costs of cleaning up toxic sites range from tens of thousands to millions of dollars per site. When responsible parties aren't able to pay for cleanups, the burden often falls on taxpayers.

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

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

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<sup>1</sup> Washington law uses the term *dangerous waste*. Federal law uses the term *hazardous waste*. While these terms are often used interchangeably, Washington's definition includes some substances that are not included in the federal definition.

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

## **Authorizing Laws**

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

## **Constituents/Interested Parties**

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

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

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

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

During the 2013-15 Biennium, Ecology staff performed nearly 750 compliance inspections at facilities that generate or manage dangerous waste. These inspections resolved over 600 serious environmental threats. Such threats have the potential to pollute our environment through leaks or spills from unsafe storage methods or containers and improper disposal.

The inspections also revealed how well facilities complied with state and federal regulations. We found serious environmental violations at 53 percent of regulated businesses we inspected during the 2013-15 Biennium, down from almost 60 percent in the 2009-11 Biennium. An EPA study of Washington businesses showed a 20 percent increase in environmental threats when more than three years passed between inspections. During the 2013-15 Biennium, we maintained a historically high rate of inspections. By conducting inspections on a regular basis, we hope to continue to reduce the chance of finding serious environmental threats at businesses.

## Local Source Control Partnership

Smaller business generators of hazardous/dangerous wastes are less likely to garner the attention of regulatory agencies for waste, air, or stormwater issues. But many smaller businesses still generate wastes that can cause pollution through mismanagement or stormwater runoff.

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

During the 2013-15 Biennium, the total number of performance contracts with local governments reached 22, with five of these funded through federal National Estuary Program grants (the balance were state-funded). The total number of technical assistance visits conducted by local government partners between July 2013 and June 2015 was 6,210, with a total of nearly 19,000 since 2008. For the 2015-17 Biennium, Local Source Control received additional funding to expand technical assistance to the Columbia River Basin and develop an environmental monitoring element with help from Ecology's Environmental Assessment Program.

## **State Solid & Hazardous Waste Plan: Moving Washington Beyond Waste and Toxics**

The state of Washington is required by statute to have a Solid and Hazardous Waste Plan and update it regularly. The plan's purpose is to guide waste and toxics reduction and safe waste management in the state. With extensive stakeholder input, Ecology completed the 2015 update of the state plan, and we are now beginning implementation. Goals of the plan include reducing waste and toxics, addressing issues of concern, and continuing to improve current waste management practices.

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

### **Updated Rules**

As EPA updates its regulations, the state is required to amend the Dangerous Waste Regulations. In the 2015-17 Biennium, Ecology will incorporate new federal hazardous waste rules into the Dangerous Waste Regulations. This rulemaking is needed to keep our rules current with federal law and maintain state authorization. Some rules we adopt to stay current with the federal program; others are optional, but help streamline or clarify existing rules.

Possible EPA rules for adoption include the definition of solid waste recycling exclusions, an exclusion for recycling or disposal of solvent contaminated wipes, the pharmaceutical rule, and the generator improvement rule.

For Washington state only regulations, Ecology will start rulemaking on the Persistent, Bioaccumulation and Toxins rule (PBT WAC 173-333), and may start rulemaking on the Children's Safe Product Act rule (CSPA WAC 173-334). Changes to these rules involve evaluating lists of hazardous chemicals for possible deletion or inclusion. We will also evaluate the need to update and streamline the Pollution Prevention Plan rule (WAC 173-307), in conjunction with the Hazardous Waste Fee regulation (WAC 173-305).

### **Pollution Prevention Planning**

\$60.5 million saved. That's what Washington businesses said Pollution Prevention (P2) planning has done for them since 2005. The actual total is probably much higher, since businesses are not required to report cost savings. That \$60.5 million saved would pay for approximately 1,200 jobs.<sup>2</sup>

Businesses develop P2 plans if they generate more than 2,640 pounds of dangerous waste per year or if they are required to report as part of the national Toxic Release Inventory. These plans identify opportunities to voluntarily reduce hazardous substances used and waste generated. These businesses have reduced their waste by more than 50 percent over the past 20 years.

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<sup>2</sup> Based on average Washington wage \$50,000, as compiled by the U.S. Bureau of Labor Statistics.

During the 2015-17 Biennium, Ecology staff will focus on giving more assistance to these and other facilities on safer alternatives to chemicals that they use. Less toxic chemicals used by these facilities will result increased worker safety and a better environment.

## **Reducing Risk through Technical Assistance to Businesses**

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

Two items are key in breaking the cycle of ongoing cleanup expenses: (1) to use fewer toxic chemicals, and (2) to 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 the environment and may eventually require cleanup.

During the 2013-15 Biennium, HWTR staff conducted over 1,000 business assistance visits. We provided business-specific advice on how to:

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

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

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

## **Safer Chemicals**

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

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

The effects of toxic chemical exposure to human health, the environment, and the economy are enormous-and largely preventable-as state, national, and international efforts transition to safer

chemistry. A number of Ecology projects supporting safer chemicals will continue in 2015-17, including:

- Working with the Toxics in Packaging Clearinghouse, a consortium of states working to keep regulated toxic metals out of consumer products packaging.
- Increasing distribution and use of hazard assessments for identifying highest-risk chemicals and safer chemical alternatives.
- Working with a multi-state effort to reform the federal chemical management law (the 1976 Toxic Substances Control Act), which includes using a set of states' principles on national chemical policy reform. Last biennium, this included giving national testimony on proposed federal legislation and working with a national organization on this issue.
- Certifying manufacturer compliance with the Better Brakes Law and assessing the availability of alternative auto brake friction materials that eliminate or reduce copper, asbestiform fibers, cadmium, lead, and mercury. Right now, these toxic substances are being washed off roads into streams, rivers, and Puget Sound.
- Assuring compliance with the Children's Safe Products Act and other laws that limit toxics in consumer products.
- Developing and implementing Chemical Action Plans to reduce the uses and releases of persistent, bioaccumulative and toxic chemicals.
- Implementing a roadmap for advancing green chemistry in Washington State, including creating a Green Chemistry Center. Some of the goals of the center are to:
  - Support and facilitate designing and advancing innovative chemistries that are environmentally benign, minimize waste, and reduce energy/resource impacts in chemical processes and technologies.
  - Promote industry collaboration and industry-academia opportunities to advance adoption of green chemistry practices.
  - Convene university researchers and educators to prioritize green chemistry research needs, integrate green chemistry science curriculum, and enhance student learning opportunities.

## **Permitting and Corrective Action**

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

Corrective actions are going on at 41 priority facilities, because of their significance as designated by EPA. Ecology expects to have most of these 41 cleanups finished, or in maintenance mode, by 2020. We had completed an overall average of 74 percent of the work at these facilities by the close of the 2013-15 Biennium. The full cleanup process takes 10-12 years to complete.

Human exposures are under control at 90 percent of these facilities, and contaminated groundwater is under control at 85 percent of the facilities. This meets or exceeds EPA's national goals for 2015 of 90 and 79 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 a range of information about hazardous substances and dangerous waste. Data sets include: hazardous substances stored, toxics in products to determine compliance with existing laws, toxics released to the environment, dangerous waste generated and managed, and pollution prevention measures taken by businesses. The information on toxics found in products includes the Children's Safe Products manufacturer reporting database and Ecology's product testing work database. We compile and make the data available to individuals, businesses, emergency responders, and local government decision makers.

Our website, printed materials, telephone information line, and program newsletter, *Shoptalk* (<http://www.ecy.wa.gov/programs/hwtr/shoptalkonline/index.html>), provide the most current available hazardous substance and dangerous waste information. These resources help businesses and the public make informed decisions on using and safely managing hazardous substances to protect human health and the environments. During 2013-15, HWTR websites logged more than 666,814 visits, and *Shoptalk* distribution more than doubled to reach over 10,000 subscribers.

## **Emergency Planning and Community Right-to-Know**

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

1. Tracking the bulk storage of hazardous chemicals to facilitate emergency planning and response.
2. Tracking and reporting on the release of toxic chemicals into communities across the state.

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

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

## **Activities, Results, and Performance Measures**

### **Improve Community Access to Hazardous Substance and Waste Information**

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

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

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

### **Expected Results**

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

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

### **Performance Measure**

- Number of visits to toxics-related websites.

## **Increase Compliance and Act on Environmental Threats from Hazardous Waste**

Ecology conducts annual, 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 comply with regulations will escalate to formal enforcement actions. When possible, a streamlined enforcement and settlement approach is used. This frees up inspectors to do more inspections instead of spending time with legal proceedings. The state also periodically amends the Dangerous Waste Regulations to keep our rules current with the federal program and maintain state authorization.

### **Expected Results**

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

- Conducting over 400 compliance inspections annually.
- Leaning our compliance inspection process in an effort to add capacity for additional inspections.
- Responding to 100 percent of dangerous waste related complaints (approximately 120-180 complaints per year).

- Utilizing streamlined enforcement and settlement approaches as opportunities arise.
- Issuing timely enforcement actions resulting in a deterrent to businesses and changed behavior.
- Focusing on reducing the number of significant environmental threats found during inspections.

**Performance Measures**

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

**Increase Safe Hazardous Waste Management**

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

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

**Expected Results**

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

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

**Performance Measures**

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

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

Facilities that treat, store, or dispose large volumes of dangerous waste must obtain a permit to ensure their design, construction, maintenance, and operating procedures protect public health and the environment. Washington currently has 14 active facilities that are either in "interim status" or have a final permit.

Because these facilities handle such a large volume of dangerous waste, they are inspected annually. They are required to have closure plans to effectively deal with the end of their waste management activities. Ecology is currently working on more than 20 high-priority corrective action cleanup sites.

Ecology also ensures that proper financial assurance requirements are in place at all used oil processors and recyclers, and facilities treating, storing, or disposing dangerous wastes.

### **Expected Results**

Facilities that treat, store, or dispose of dangerous wastes are constructed and operated to prevent soil, water, or air contamination. We accomplish this through:

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

### **Performance Measure**

- Percentage progress toward completed corrective action at priority facilities.

## **Reduce Persistent Bioaccumulative Toxins (PBTs) in the Environment**

Persistent, bioaccumulative toxins (PBTs) are a particular group of chemicals that can significantly affect the health of humans, fish, and wildlife. Ecology is implementing a long-term strategy designed to reduce PBTs in Washington's environment over the coming years. This strategy coordinates agencywide efforts, engages other key organizations and interest groups, and provides for public education and information on reducing PBTs in the environment.

The Legislature has enacted bans for certain products containing mercury, PBDEs (chemical flame-retardants), and lead. Ecology has implemented programs to reduce uses of mercury and lead and continues to support programs to reduce releases of polycyclic aromatic hydrocarbons (PAHs-combustion by-products). Ecology continues to support the Department of Health and local health departments in eliminating sources of lead in homes.

### **Expected Results**

- Through developing Chemical Action Plans and implementing plan recommendations, 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.
- Ecology has completed chemical actions plans for mercury, PBDEs, lead, PAHs- and PCBs. Ecology has scheduled a PBT rule update during the 2015-17 Biennium.

### **Performance Measures**

- Number of children tested for lead in blood.
- Percentage of tested children with elevated lead blood levels.
- Pounds of household and small quantity generator hazardous wastes recycled or properly disposed.

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

The state Hazardous Waste Reduction Act calls for the reduction of hazardous waste generation and the use of toxic substances and requires certain businesses to prepare plans for voluntary reduction. Staff

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

### **Expected Results**

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

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

### **Performance Measures**

- Annual pounds of hazardous waste generated.

### **Reduce Toxic Chemicals in Products and Promote Safer Alternatives**

Toxic chemicals in some types of consumer products have been found to be a source of pollution in 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. Ecology uses several strategies to achieve this goal, including:

- Identifying chemicals of concern in consumer products and promoting safer alternatives to identified chemicals;
- Promoting green chemistry;
- Promoting environmentally preferred purchasing;
- Sampling and enforcing statutory reporting requirements and standards related to children's products;
- Enforcing toxics limits in such products as lead wheel weights, coal tar sealants, and copper brake pads; and
- Testing for metal and enforcing limits in packaging.

## **Expected Results**

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

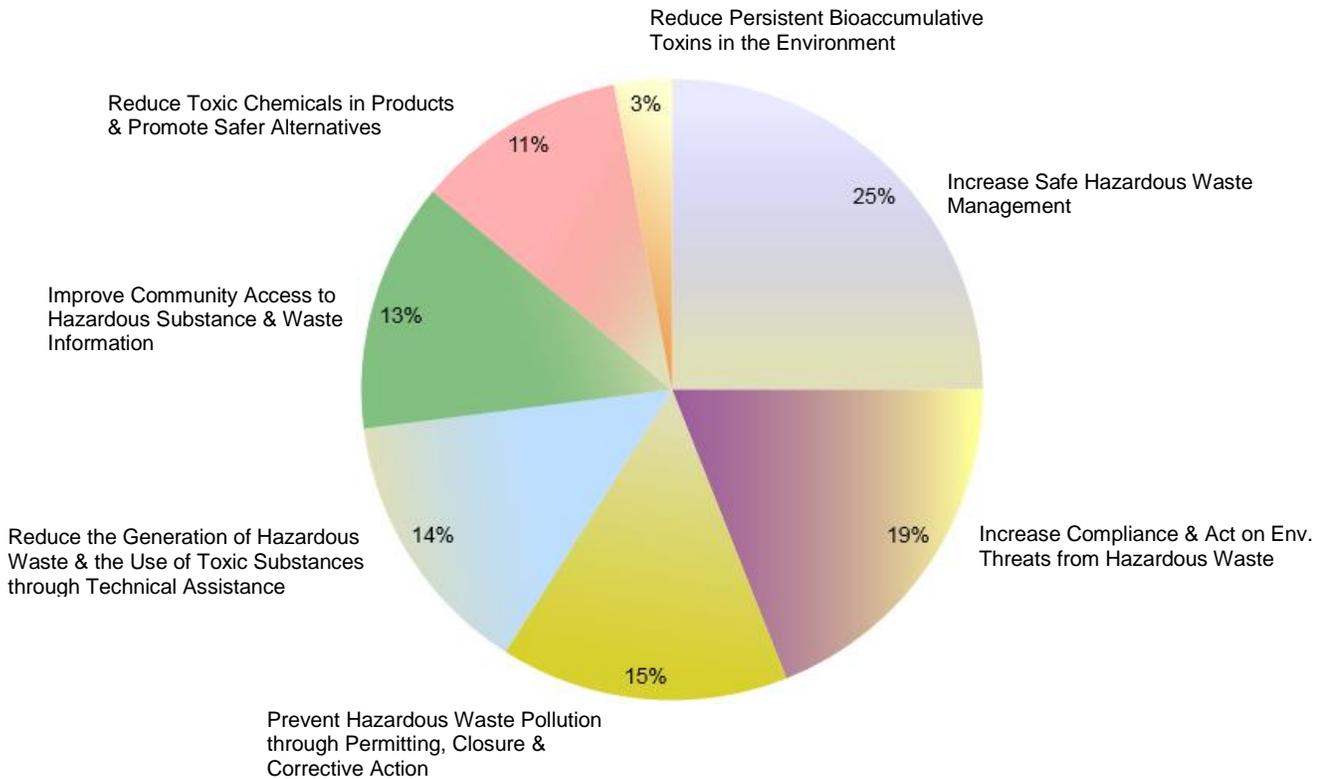
- Collecting or capturing an additional 4,500 pounds of mercury from sources such as schools, labs, florescent lamps, automotive switches and thermometers.
- Certifying compliance with the Better Brakes product law by reducing the average concentration of copper in brakes sold in the state and assessing the availability of alternative materials for brake pads, such as copper-free brake pads.
- Implementing state consumer product laws limiting the presence of toxic chemicals, including product testing.
- Promoting and sharing with businesses up to 100 hazard assessments to replace chemicals of concern with safer alternatives.
- Working with the Department of Enterprise Services to increase the number and use of contracts offering environmentally-preferred products, including Correctional Industries making flame retardant free furniture available.

## **Performance Measures**

- Pounds of toxic substances used by Washington industries.
- Pounds of mercury collected and/or captured.

## Hazardous Waste & Toxics Reduction Program 2015-17 Biennium Budget By Activities

**Operating Budget = \$34.7 Million; FTEs = 130.5**



Activities	Dollars	FTEs
Increase Safe Hazardous Waste Management (A022)	\$8,893,189	18.2
Increase Compliance & Act on Environmental Threats from Hazardous Waste (A021)	6,801,204	32.5
Prevent Hazardous Waste Pollution Through Permitting, Closure & Corrective Action (A031)	5,269,192	19.2
Reduce the Generation of Hazardous Waste & the Use of Toxic Substances Through Technical Assistance (A052)	5,065,283	22.6
Improve Community Access to Hazardous Substance & Waste Information (A019)	4,594,534	24.5
Reduce Toxic Chemicals in Products & Promote Safer Alternatives (A065)	3,799,905	12.5
Reduce Persistent Bioaccumulative Toxins (PBTs) in the Environment (A050)	233,038	1.0
<b>Hazardous Waste &amp; Toxics Reduction Operating Budget Total</b>	<b>\$34,656,345</b>	<b>130.5</b>

## Hazardous Waste & Toxics Reduction Program 2015-17 Biennium Budget By Fund Source

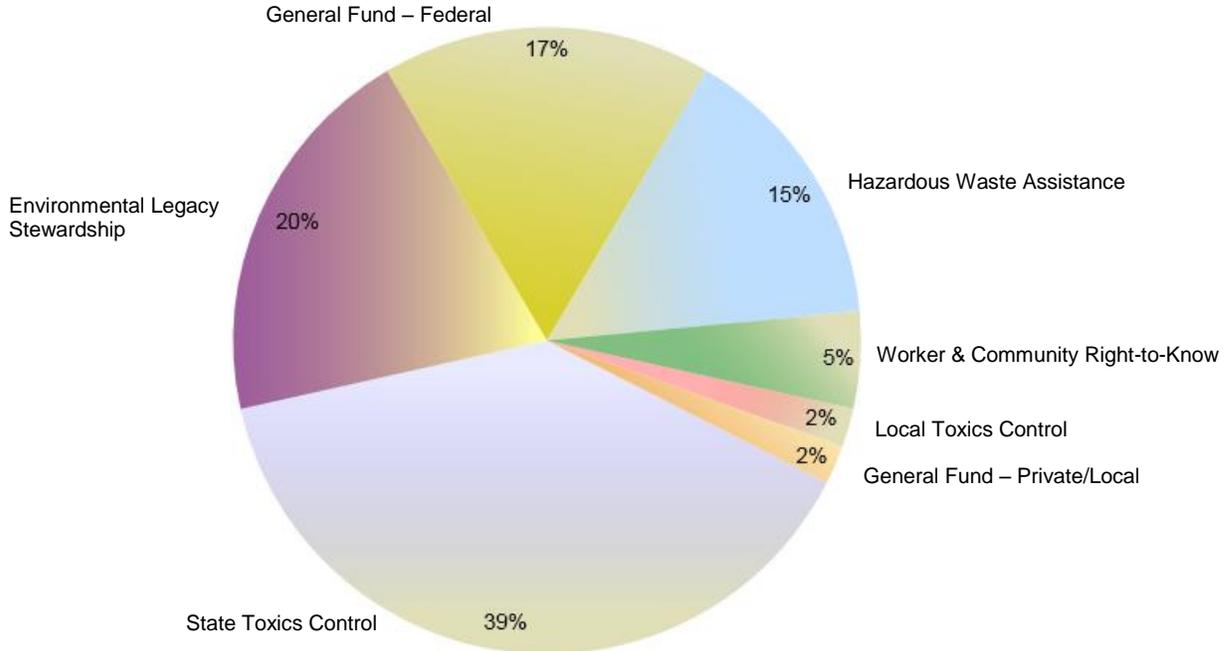
**Operating Budget = \$34.7 Million**

*Pie shown below is operating budget ONLY.*

**Capital Budget = \$0.3 Million**

*Funded entirely by State Toxics Control Account (173).*

**FTEs = 130.5**



Operating Fund Sources	Amount	Uses
State Toxics Control (173)	\$13,622,659	Promote pollution prevention and safe waste management, primarily through technical assistance to businesses, inspections of large quantity generators of hazardous waste and permitted treatment, storage and disposal facilities, and hazardous waste cleanups. Conduct criminal investigations and enforcement actions.
Environmental Legacy Stewardship (19G)	6,974,474	Review and analyze waste-derived fertilizers as part of the fertilizer registration process. Fund and train local government specialists to provide assistance in waste management and reduction and source control. Manage permits, closures, and cleanups at facilities that treat, store, or dispose of hazardous waste.
General Fund – Federal (001)	5,901,300	Grant funds received from EPA to implement federal Resource Conservation and Recovery Act (RCRA) and pollution prevention innovations.
Hazardous Waste Assistance (207)	5,371,736	Provide technical assistance to hazardous waste generators and hazardous substance users. Identify safer chemical alternatives for toxic or hazardous chemicals to help businesses, governments and citizens make better choices on what to use and buy.
Worker & Community Right-to-Know (163)	1,632,485	Provide data systems that compile/gather, maintain, report and make available current hazardous substance and waste information to individuals, businesses, emergency responders, and local government decision makers.
Local Toxics Control (174)	622,690	Compile information on hazardous substance use and make this information available to citizens and other public entities.
General Fund – Private/Local (001)	531,001	Manage cleanups at facilities that treat, store, or dispose of hazardous waste.
<b>Operating Budget Total</b>	<b>\$34,656,345</b>	
Capital Fund Sources	Amount	Uses
State Toxics Control (173)	\$309,430	Remove known toxic components in vehicles and appliances, including switches containing mercury, prior to crushing and shredding.
<b>Capital Budget Total</b>	<b>\$309,430</b>	
<b>HWTR Operating &amp; Capital Budget Total</b>	<b>\$34,965,775</b>	



Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
<b>1. A052 – Reduce the generation of hazardous waste and use of toxic substances through technical assistance.</b>		<b>20.15</b>		
<p><i>The state Hazardous Waste Reduction Act calls for the reduction of hazardous waste generation and the use of toxic substances and requires certain businesses to prepare plans for voluntary reduction. Staff provide assistance through innovative programs for source and waste generation reduction, including more than 480 toxics-related technical assistance visits per year. In addition, the agency focuses on improvements in industries that have the highest rate of waste generation and non-compliance to help them achieve energy savings, water conservation, and reduced hazardous waste production. Reducing toxics in products and the initial generation of hazardous waste minimizes disposal costs, reduces the need for cleanup, minimizes public exposure, and saves money.</i></p>				
1	<p><b>Toxic Evolution (TE) Planners Assistance</b>            Work with planners to research, identify, and implement:</p> <ul style="list-style-type: none"> <li>• Toxic free designs of their product.</li> <li>• Environmentally beneficial substitutions of toxic chemicals.</li> <li>• Sharing chemical alternatives and hazard assessment information.</li> <li>• Inventorying hazardous substances.</li> <li>• Toxics reduction opportunity development.</li> <li>• Using less volume of toxics through efficiencies (Virtual Paint System).</li> <li>• Toxics oriented site visits.</li> <li>• Related activities.</li> </ul>	2.65	<ul style="list-style-type: none"> <li>• Visit 40 facilities per year.</li> <li>• Increase staff time spent on TE activities to 35% by the end of the biennium toward goal of 80% by 2020.</li> <li>• Track dollars saved by implemented opportunities.</li> <li>• Staff conducts and documents research on new opportunities.</li> </ul>	2015 state plan Goal HWM 1: Hazardous waste genertors will significantly reduce chemical use, waste, emissions, and costs by successfully implementing effective P2 plans and other actions.
2	<p><b>Toxic Evolution (TE) Non-planners Assistance</b>            Research, identify, share, and successfully assist non-planners with:</p> <ul style="list-style-type: none"> <li>• Toxic free designs of their product.</li> <li>• Environmentally beneficial substitutions of toxic chemicals.</li> <li>• Sharing chemical alternatives and hazard assessment information.</li> <li>• Inventorying hazardous substances.</li> <li>• Toxics reduction opportunity development.</li> <li>• Using less volume of toxics through efficiencies (Virtual Paint System).</li> <li>• Toxics oriented site visits.</li> <li>• Collaborating with venture capital firms on the Chemical Footprint Project.</li> <li>• Helping an association solve a toxics problem.</li> <li>• Related activities.</li> </ul>	1.80	<ul style="list-style-type: none"> <li>• Assist 40 facilities per year with toxics reduction opportunities.</li> <li>• Increase staff time spent on TE activities to 35% toward goal of 80%.</li> <li>• Document and share successful toxics substitutions.</li> <li>• Staff conducts and documents research on new opportunities.</li> </ul>	2015 state plan Goal HWM 1: Hazardous waste genertors will significantly reduce chemical use, waste, emissions, and costs by successfully implementing effective P2 plans and other actions.

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
3	<p><b>Toxic Evolution (TE) Pilots/Projects/Research</b> Independent of whether project is with planners or non-planners, includes:</p> <ul style="list-style-type: none"> <li>• Cleaning with Safer Choice products.</li> <li>• Chemical Footprint Projects.</li> <li>• Flame retardant in products.</li> <li>• Virtual Paint.</li> <li>• SCIL Pilot.</li> <li>• Others to be determined.</li> </ul>	2.65	<ul style="list-style-type: none"> <li>• Finish Cleaning with Safer Choice Products pilot.</li> <li>• Conduct Safer Chemical Ingredients List pilot.</li> <li>• Complete Virtual Paint project.</li> <li>• Collaborate with venture capital firms on Chemical Footprint project.</li> <li>• Complete an additional 2-4 pilots.</li> <li>• Involve all regional staff in a pilot during biennium.</li> <li>• Evaluate whether CSPA reported data can inform future pilots.</li> </ul>	Ecology has developed new clients and new ways to achieve the above goal (HWM1).
4	<p><b>Toxic Evolution (TE) Training</b> Staff training includes:</p> <ul style="list-style-type: none"> <li>• GreenScreen/QCat.</li> <li>• Environmental Chemistry.</li> <li>• Sales and marketing.</li> <li>• Planning the training (i.e., Training Team)</li> </ul>	1.20	<ul style="list-style-type: none"> <li>• Complete training plan for safer alternative skills.</li> <li>• Staff complete training plan.</li> <li>• Staff spend up to 200 hours during the biennium on completing the training plan and individual learning.</li> </ul>	TR staff feel confident and give accurate, timely, and appropriate information to facilities about safer alternatives and green chemistry options.
5	<p><b>End-of-Life Management (EOLM) P2 Planner Assistance</b> Traditional EOLM P2 activities with planners, such as:</p> <ul style="list-style-type: none"> <li>• Interpreting regulations about toxics (example; EPCRA compliance).</li> <li>• Waste reduction opportunity development (example: recommending distillation).</li> <li>• Finding cheaper disposal options/recycling opportunities.</li> <li>• Waste oriented site visits.</li> <li>• Compliance assistance.</li> </ul>	2.80	<ul style="list-style-type: none"> <li>• Visit 60 facilities per year.</li> <li>• Review 300 plans per year, 90% completed by April 30 of each year.</li> <li>• Track dollars saved by implemented opportunities.</li> <li>• Conduct 2-4 in-depth technical assistance projects ( may be Lean and Environment, TREE, or energy-related).</li> </ul>	2015 state plan Goal HWM 1: Hazardous waste genertors will significantly reduce chemical use, waste, emissions, and costs by successfully implementing effective P2 plans and other actions.
6	<p><b>End-of-Life Management (EOLM) P2 Non- planner Assistance</b> Traditional EOLM P2 activities with non-planners, such as:</p> <ul style="list-style-type: none"> <li>• Interpreting regulations about toxics (example; EPCRA compliance).</li> <li>• Waste reduction opportunity development (example: recommending distillation).</li> <li>• Finding cheaper disposal options/recycling opportunities.</li> <li>• Waste oriented site visits.</li> <li>• Compliance assistance.</li> </ul>	2.60	<ul style="list-style-type: none"> <li>• Conduct 40 visits to non-planners.</li> <li>• Conduct 2-4 in-depth technical assistance projects ( may be Lean and Environment, TREE, or energy-related).</li> </ul>	2015 state plan Goal HWM 1: Hazardous waste genertors will significantly reduce chemical use, waste, emissions, and costs by successfully implementing effective P2 plans and other actions.

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
7	<b>Pollution Prevention (P2) Plan Tracking</b>	0.40	<ul style="list-style-type: none"> <li>• Revise pollution prevention fee process.</li> </ul>	The P2 plan database is up-to-date and information in it is accurate and it greatly facilitates the P2 fee process.
8	<b>Incentives and Recognition to Industry and Government</b> Including EnviroStars and P2 Success Stories.	1.25	<ul style="list-style-type: none"> <li>• Conduct the Safer Chemistry Champion Award program.</li> <li>• Write and distribute ten success stories.</li> <li>• Support local EnviroStars programs.</li> </ul>	2015 state plan Goal HWM 2: P2 planning facilities and other industries will use cleaner, more sustainable manufacturing processes and produce less toxic and sustainable products.
9	<b>Toxics Evolution and Reducing Toxics in Products</b> Includes communication planning, web and publication content development. (Does not include visits.)	0.55	<ul style="list-style-type: none"> <li>• Evaluate effectiveness of Toxics Evolution activities with clients.</li> <li>• Conduct regional green chemistry roundtable with outdoor industry organization.</li> <li>• Evaluate opportunities to inform toxics evolution pilots based on reported CSPA information.</li> </ul>	2015 state plan Goal INFO 1: The majority of regulated businesses understand how to comply with the DW regulations, why it is important to implement their P2 plans, and act accordingly. They will understand that waste must be tackled during the design phase, not at the end-of-life, and whenever possible, reduce waste before it is created.
10	<b>Toxics Evolution Support/Coordination</b> Includes Change Implementation Team	1.55	<ul style="list-style-type: none"> <li>• Implement, evaluate, and adjust the Toxics Evolution Five Year Plan.</li> <li>• Complete, maintain, and implement the Toxics Evolution communication plan.</li> <li>• Change Implementation Team will review training plans and scope future pilots.</li> <li>• Update rules relating to P2 Planning (adding to hazardous substance list, fees, etc.).</li> </ul>	There is good two-way communication between CIT and related teams and TR staff. TR staff understand CIT and related teams' mission and goals.
11	<b>Other</b> Includes: supervision, training, mentoring, cross-program teams, pollution prevention coordination, Toxics Reduction Network, data entry, SharePoint maintenance, and final review of reports.	2.70	<ul style="list-style-type: none"> <li>• Conduct six joint trainings (staff and business together) on safer alternatives and green chemistry.</li> <li>• Plan and conduct a face-to-face toxics staff training event once per biennium.</li> <li>• Conduct eleven meetings to coordinate toxics reduction activities.</li> <li>• Increase coordination with Compliance Network and Corrective Action Network.</li> </ul>	Staff know what to do and how to do it and all other support systems (databases, SharePoint, etc.) are in place and are working well. All three networks understand what each does and there is good two-way communication between TR staff and TR network representatives.
<b>2. A022 – Increase safe hazardous waste management.</b>		<b>12.00</b>		
<p><i>Ecology provides education and technical assistance to thousands of businesses on safe hazardous waste management. Although formal enforcement work is essential to maintaining compliance with hazardous waste regulations, workshops and technical assistance visits also can help bring facilities into regulatory compliance using substantially fewer resources. Safe management of hazardous waste protects the public and the environment, and enables the state to avoid significant clean-up costs.</i></p>				

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
21	<b>Compliance-related Technical Assistance</b> Includes: Increased Generator Contact (IGC), Delinquent Annual Reporters (DAR), new notifiers, non-notifiers, sector work, Urban Waters, Local Source Control Partnership Coordination, statistical support.	5.20	<ul style="list-style-type: none"> <li>Complete up to 200 compliance-related TA visits.</li> </ul>	<p>2015 state plan Goal 4: Communication about compliance issues improves, making it easier for facilities to make corrections.</p> <p>Businesses are legally and safely managing hazardous waste, and toxics reduction technical assistance has helped businesses reduce their use of hazardous substances.</p>
22	<b>Dangerous waste and compliance education, outreach, and regulatory assistance</b> Includes generator workshops, web, video, and publication content development. (Does not include visits.)	0.85	<ul style="list-style-type: none"> <li>Revise compliance-related web content.</li> <li>Create up to two additional web-based dangerous waste workshop audio/visual training modules for use by regional offices (FY14).</li> <li>Regions to host pilot dangerous waste workshop/webinars based on new videos (FY15).</li> </ul>	<p>2015 state plan Goal 4: Communication about compliance issues improves, making it easier for facilities to make corrections.</p> <p>There will be reduced use of toxic substances and better compliance with dangerous waste regulations.</p>
22	<b>Dangerous waste and compliance education, outreach, and regulatory assistance</b> Includes generator workshops, web, video, and publication content development. (Does not include visits.)	0.85	<ul style="list-style-type: none"> <li>Revise compliance-related web content.</li> <li>Create up to two additional web-based dangerous waste workshop audio/visual training modules for use by regional offices (FY14).</li> <li>Regions to host pilot dangerous waste workshop/webinars based on new videos (FY15).</li> </ul>	<p>2015 state plan Goal 4: Communication about compliance issues improves, making it easier for facilities to make corrections.</p> <p>There will be reduced use of toxic substances and better compliance with dangerous waste regulations.</p>
23	<b>Special Issues</b> Includes fertilizer work, recycling determinations, Pre-Preg, By-product Synergy, mercury switch data, and new industry proposals.	0.85	Ongoing work on Pre-Preg, update drycleaner guidance manual, and ongoing site visits to increase mercury switch turn-ins.	Special waste and toxics are handled safely and sustainably. Statutory requirements are met. Special issues work has clear performance measures.
24	<b>Other</b> Includes supervision, training, mentoring, cross-program teams, national networks, policy development and regulatory interpretation, data entry, SharePoint maintenance, and final review of reports.	3.60	Develop safety plan and conduct safety training.	Staff know what to do and how to do it and all other support systems (databases, SharePoint, etc.) are in place and working well. All three networks understand what each does and there is good two-way communication between staff and network representatives.
<b>3. A021 – Increase compliance and act on environmental threats from hazardous waste</b>		<b>32.10</b>		
<p><i>The agency annually conducts formal compliance enforcement inspections at large and medium quantity generators and hazardous waste management facilities to ensure compliance with state and federal regulations. A credible, formal enforcement capability is essential to preserving the effectiveness of technical assistance and informal enforcement efforts. While staff undertake formal enforcement infrequently, repeated refusal or inability of a facility to correct violations and come into compliance with the regulations will escalate to formal enforcement actions.</i></p>				

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
31	<b>Inspections</b> Includes EPA, State Priorities, Urban Waters Initiative, follow-ups.	18.30	<ul style="list-style-type: none"> <li>• 410 compliance inspections annually.</li> <li>• Continue efforts to cut current environmental threat rate to 30% by 2017.</li> </ul>	2015 staff plan Goal 3: Large Quantity and Medium Quantity Generators will comply with the dangerous waste rules and remain in compliance.
32	<b>Compliance Enforcement</b> Includes BEN calculations.	2.05	<ul style="list-style-type: none"> <li>• Use streamlined enforcement and settlement approaches as opportunities arise.</li> <li>• Issue timely enforcement actions resulting in a deterrent to businesses and changed behavior.</li> <li>• Use press releases to help prevent businesses from violating.</li> </ul>	2015 staff plan Goal 3: Large Quantity and Medium Quantity Generators will comply with the dangerous waste rules and remain in compliance.  Use streamlined approaches to decrease staff time and AAG expense per enforcement action.
33	<b>Complaint Response</b>	2.85	<ul style="list-style-type: none"> <li>• Respond to and close out 100% of complaints. (HWTR receives approximately 120-180 complaints per year.)</li> </ul>	Respond to 100% of complaints, resulting in discovering and resolving serious dangerous waste mismanagement, protecting people's lives, their health and the environment.
34	<b>Implement Lean Projects</b> Only include work required to identify and plan new tasks. (This does not include new or different work.)	0.0	<ul style="list-style-type: none"> <li>• Track compliance inspection start-to-finish time.</li> <li>• Work with ITSO on next steps of PIMS.</li> </ul>	Compliance work is conducted very efficiently and is effective in meeting its goals.
35	<b>Rule Development</b> Includes all state and federal rule development activities related to the program (i.e., amend the dangerous waste regulations, which keeps rules current with the federal RCRA program and maintains the state's authorization).	0.95	<ul style="list-style-type: none"> <li>• Update federal rule updates expected, along with review of state rules.</li> </ul>	RCRA authorization and rulemaking complies with state and federal law, meets agency and program needs. Use regulation changes to address those risks and drive positive changes.
36	<b>Other</b> Includes supervision, training, mentoring, health care industry networks/memberships, compliance network (CompNet), cross-program teams, RCRA Info, RSVP, Compliance Coordination, Compliance Lean implementation, data entry, SharePoint maintenance, and final review of reports.	7.95	<ul style="list-style-type: none"> <li>• CompNet continue to meet monthly.</li> <li>• Document compliance network discussions and make available to staff.</li> <li>• Review state criteria designation levels.</li> </ul>	Staff provided with needed training and forums to effectively and efficiently conduct compliance network discussions and decisions are documented and available to staff.

<b>4. A031 – Prevent hazardous waste pollution through permitting, closure, and corrective action</b>	<b>19.00</b>	
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*Facilities that treat, store, and/or dispose of dangerous wastes (TSDs) are required to obtain a permit to ensure that their design, construction, maintenance, and operating procedures protect public health and the environment. Washington currently has 15 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 clean-up plan. The agency is currently working on 39 corrective action clean-up sites (22 high-priority facility and 17 medium- and low-priority facilities).*

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
41	<b>Site-specific Corrective Action Work</b> Includes development and publication of engineering reviews/inspections.	11.30	<ul style="list-style-type: none"> <li>• Reach agreement with EPA on definition of completion.</li> <li>• Ecology will strive to meet EPA's cleanup goals for protecting human health, controlling migration of contaminated groundwater, and sites reaching remedy construction complete.</li> <li>• Washington will contribute, with other Region 10 states, to meet EPA Region 10 site-specific goals: advance one site for human health, one for groundwater under control, three for remedy construction complete, and three permits issued or renewed.</li> <li>• Overall cleanup completion at 74% by end of 15-17.</li> <li>• Maintain and update site manager timelines.</li> </ul>	2015 staff plan HWM 7: By 2020, 95% of corrective action sites permitted by Ecology will safely manage environmental contamination.
42	<b>Permitting</b> Includes permit modifications, other TSD regulatory options, document development and publication, web content, engineering reviews/ inspections and financial assurance, permit coordination.	3.40	<ul style="list-style-type: none"> <li>• Issue two high priority major relocation modifications (Stericycle).</li> <li>• Process 5-10 permit modifications per year. (Scheduled permit modification requests will be considered high priority; unscheduled requests will be prioritized based on importance and current work load. Permit modifications on expired permits will happen only if they have an environmental benefit).</li> </ul>	2015 staff plan HWM 8: In the next five years, Ecology will issue permits for all sites and facilities that reflect current operations and ensure facilities comply with permit conditions.
43	<b>Site-specific Closures</b> Includes used oil recycling facilities (continue to hold), post-closure, document development and publication.	1.00	<ul style="list-style-type: none"> <li>• Ensure proper financial assurance requirements are in place at used oil processors and recyclers.</li> <li>• One recycler closure expected (Thermo Fluids).</li> </ul>	2015 staff plan HWM 10: Dangerous waste facilities and used oil processors will offer safe recycling.
44	<b>Public Involvement</b> Includes EPA, State Priorities, Urban Waters Initiative, follow-ups.	0.60	<ul style="list-style-type: none"> <li>• Regular public notice of pending permitting and corrective action work.</li> <li>• Increased attention on communicating with underserved communities such as immigrant populations and innercity neighborhoods.</li> <li>• Creation of stakeholder groups and community networks for the distribution of permitting and corrective action developments.</li> <li>• Translation of outreach materials into other languages, such as Spanish.</li> </ul>	2015 staff plan HWM 9: Parties interested in permitted facilities and corrective action sites will know where to find current information.

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
45	<b>Other</b> Includes EPA, State Priorities, Urban Waters Initiative, follow-ups.	2.70	<ul style="list-style-type: none"> <li>• Training for Corrective Action (CA) staff on public engagement and involvement, resulting in better public understanding and acceptance of cleanup actions.</li> <li>• Conduct two meetings to coordinate CA activities.</li> <li>• Increase coordination with Compliance Network and Toxics Reduction Network.</li> </ul>	Corrective Action Network: Timely and efficient communication internally between corrective action staff, with EPA Region 10 and facilities subject to permitting and corrective action. All three networks understand what each network does.
<b>5. A019 – Improve community access to hazardous substance and waste information. "Community" includes the public, private businesses, non-profit organizations, and government sectors.</b>		<b>20.58</b>		
<p><i>The agency 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. It provides the agency, public, and local governments with accurate information about the type, location, and source of hazardous substances that affect them. In accordance with federal and state Community Right-to-Know laws, the agency also responds to public inquiries about toxic chemicals and provides a website for this purpose.</i></p>				
51	<b>Environmental Justice (EJ)</b> Includes leading Ecology agency-wide coordination.	1.30	<ul style="list-style-type: none"> <li>• Oversee Ecology’s EJ Strategic Plan, including Language Access planning and protocols.</li> <li>• Complete pilot project assessment and translation of HWTR’s vital documents.</li> <li>• Develop demographic maps to assess HWTR’s compliance inspections, enforcement efforts, and the program’s activities affecting low-income, minority, or Tribal populations.</li> <li>• Develop and post environmental justice and equitable access public website.</li> </ul>	2015 State plan “What Washington will look like in 2035 – Environmental equity and justice is achieved for all Washington residents.” WA communities are equitably served and protected by Ecology’s work. Ecology staff understand and apply the agency’s EJ values and Title VI guidance. Communities with EJ considerations are aware of and have access to Ecology’s services, and are supported to engage in the agency’s public participation activities.
52	<b>Website Maintenance, Updates and Revisions</b> Includes Internet, Intranet, SharePoint. (Does NOT include content development.)	2.20	<ul style="list-style-type: none"> <li>• Clarify program/agency SharePoint vs. Intranet use.</li> <li>• Update and finalize list of content owners for all web pages, including RTT-based pages.</li> <li>• Review and update navigation and content for key topic areas starting with Pollution Prevention and Manage Waste.</li> <li>• Identify and plan product testing database upgrade.</li> </ul>	Corrective Action Network: Timely and efficient communication internally between corrective action staff, with EPA Region 10 and facilities subject to permitting and corrective action. All three networks understand what each network does.

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
53	<p><b>Systems Development, Maintenance, and Updates</b> Includes TurboPlan, TurboWaste.Net, RCRAInfo, RSVP, Reporting Portal, LSC database, Institutional Memory, and IT policy. (Does NOT include data entry.) Determine whether or not CSPA reporting and product testing databases are supported in ITSO or HWTR.</p>	5.25	<ul style="list-style-type: none"> <li>• Maintain all program applications/databases including Local Source Control, RSVP, EPCRA, TRIDex, TurboPlan, etc.</li> <li>• Rebuild the TurboWaste.Net application.</li> <li>• Rebuild the Institutional Memory application.</li> <li>• Finalize reports in the Reporting Portal.</li> <li>• Keep RCRAInfo Handler data current.</li> <li>• Identify a path forward to improve the product testing database.</li> <li>• Work with Oregon and IC2 to develop shared manufacturers reporting system.</li> </ul>	No major crashes or failures. Systems support program mission and decision-making for better targeting and policies.
54	<p><b>Data Management and Analysis</b> Includes GIS, quality assurance, and quality control. (Does NOT include data entry.) Institutional Memory, program data and performance measure analysis.</p>	1.90	<ul style="list-style-type: none"> <li>• Develop and start implementing the Toxics Evolution metrics.</li> <li>• IN coordination with other programs, continue to grow our GIS efforts as resources allow.</li> <li>• Update the toxic substance reduction OFM measure.</li> </ul>	Data is transformed into useful information for program activities, performance measures, and fee collection needs.
55	<p><b>Emergency Planning and Community Right-to-Know Act (EPCRA)</b> Includes support of the State Emergency Response Commission (SERC), data entry, Tier Two, and Toxic Release Inventory (TRI) presentations, communication strategies with state, Tribal, and local governments.</p>	2.75	<ul style="list-style-type: none"> <li>• Make more TRI information available to the public via data snapshots on the web.</li> <li>• Publish Chemicals in Washington online report annually (if resources allow).</li> <li>• Tier Two reports are collected, analyzed, and distributed annually to emergency responders.</li> <li>• Continue to coordinate with L&amp;I on worker right-to-know account.</li> </ul>	2015 state plan DATA 2: Ecology researches and shares knowledge of chemicals of concern, and uses this knowledge to direct work on reducing toxics. Hazardous chemical information is readily available to state, Tribal, and local emergency operations so local communities are better prepared to respond to emergencies involving hazardous materials.
56	<p><b>Hazardous Substance Information and Education Office (HSIEO)</b> Includes 1-800 information phone/email service and website.</p>	0.10	<ul style="list-style-type: none"> <li>• Respond to highest-priority telephone and email information requests from the public and businesses, as time allows.</li> </ul>	2015 state plan DATA 2: See above. Growing degree of awareness and understanding about toxics in products leads to refinements of our outreach and education activities and drives decisions to better educate citizens about toxics and hazards in their communities.
57	<p><b>Document Publication</b> Includes formatting, graphics, distributing for reviews including Plain Talk, printing if needed. (Does NOT include content experts.)</p>	1.55	<ul style="list-style-type: none"> <li>• Create or update up to 50 publications annually, posting to the web and making available for electronic distribution.</li> </ul>	Publications team works effectively with program staff to develop new publications. When possible, information developed is used to enhance web content. Publications influence behavior changes that provide positive environmental results. HWTR story is told accurately.

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
58	<b>Annual Reporting and Fee Administration</b> Includes hazardous waste generation and planning fees, including notifications, invoicing, collections, electronic payments, and fee administration.	3.88	<ul style="list-style-type: none"> <li>Approximately 4,000 hazardous waste reports from businesses are collected and analyzed yearly.</li> <li>P2 and Generation fees invoiced and re-billed on time.</li> <li>Continue to add appropriate industry sectors to be invoiced.</li> <li>Review rules relating to P2 and hazardous waste generation fees for potential changes.</li> </ul>	Fee revenue supports HWTR needs.
59	<b>Other</b> Includes supervision, translations, training, mentoring, cross-program teams, marketing, records management, community access to pen data, data entry, SharePoint maintenance, and final review of reports.	1.65	<ul style="list-style-type: none"> <li>Support translation teams as needed.</li> </ul>	Staff know what to do and how to do it and all other support systems (databases, SharePoint, etc.) are in place and working well. All three networks understand what each does and there is good two-way communication between staff and network representatives.
<b>6. A065 – Reduce toxic chemicals in products and promote safer alternatives.</b> (Activity created July, 2010, and represents work in both HWTR and W2R programs. This document includes only tasks and FTEs in HWTR.)		<b>10.30</b>		
<i>Toxic chemicals in products are polluting our environment and have the potential to harm humans. Reducing toxic chemicals in products overtime will lower the risks to people and the environment. To make significant progress toward achieving this goal requires several strategies; identifying chemicals of concern and strengthen the ability to gather data on the presence of these chemicals in products and the environment; improve tools and authorities to promote safer alternatives; promote green chemistry; and, improve education, outreach and communication. Reducing toxic chemical threats is the smartest, cheapest and healthiest approach to protecting people and the environment.</i>				
61	<b>Compliance with Consumer Products Laws Toxics in Packaging, Other Product Testing Projects</b> Includes support compliance and enforcement, research projects in support of existing laws like Children’s Safe Product Act (CSPA), toxics in packaging, better brakes, mercury-containing products, state EPP product testing, and other products.	3.60	<ul style="list-style-type: none"> <li>Support implementation of the Children’s Safe Product Act and development/implementation of CAPs.</li> <li>The Better Brakes effort will publicize the requirements, certify manufacturer compliance, track friction materials, and assess the availability of alternative materials.</li> <li>Publicize the results of product testing projects (clothing, PCBs, PFASs, seasonal products, etc.).</li> </ul>	2015 state plan goal RIMP 5: Manufacturers and other users of chemicals will significantly reduce the presence of persistent, bioaccumulative toxics (PBTs) and other toxics in products.
62	<b>Safer Chemicals &amp; Prioritization</b> Includes identification of chemicals of concern, promoting Safer Chemical Ingredients List (SCIL), agency priorities, and taking targeted actions.	0.75	<ul style="list-style-type: none"> <li>Identify priority products using CSPA reported data.</li> <li>Identify priority chemicals to focus agency RTT work.</li> <li></li> </ul>	2015 state plan goal RIMP 5: Manufacturers and other users of chemicals will significantly reduce the presence of persistent, bioaccumulative toxics (PBTs) and other toxics in products.

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
63	<b>Green &amp; Sustainable Chemistry/Safer Alternatives Actions</b> Includes providing Northwest Green Chemistry support, promoting technical solutions, conducting innovative pilots, education Interstate Chemicals Clearinghouse (IC2), and green nanotechnology partnership.	1.60	<ul style="list-style-type: none"> <li>• The green chemistry center will establish its mission, a steering committee, 501c3 filing status and ways to secure ongoing funding.</li> <li>• Support implementation of TRS recommendations including work with the TRS stakeholder group.</li> <li>• Successfully implement Sectors go Green.</li> <li>• Completion of at least six hazard assessments (through P2 grant; more if we get additional funding).</li> <li>• Increase distribution and use of Ecology's "green screen" for identifying safer chemical alternatives.</li> </ul>	2015 state plan goal RIMP 5: Manufacturers and other users of chemicals will significantly reduce the presence of persistent, bioaccumulative toxics (PBTs) and other toxics in products.
64	<b>Hazard and Alternative Assessments</b> Includes GreenScreens, Quick Chemical Assessment Tool (QCAT), guidance, training, and technical assistance.	0.65	<ul style="list-style-type: none"> <li>• Pigments and dyes AA if funding secured.</li> <li>• Boat paint AA if funding is secured.</li> <li>•</li> </ul>	2015 state plan goal RIMP 1: Ecology and others will increase knowledge about chemicals of concern.
65	<b>Environmentally Preferable Purchasing (EPP) &amp; Product Stewardship</b>	0.60	<ul style="list-style-type: none"> <li>• Revitalize EPP Executive Order or Governor directive.</li> <li>• Support EPP Team efforts to improve Ecology's green purchasing efforts.</li> <li>• Continue to work with W2R on Product Stewardship initiatives.</li> </ul>	2015 state plan goal RIMP 2: The acceptance and use of environmentally preferable products and services (EPP) with residential, commercial, and institution all sectors will increase.
66	<b>Toxics in Stormwater &amp; Puget Sound</b> Includes Puget Sound research, work with the Puget Sound Partnership, work with the WA Stormwater Center, NEP "toxics/nutrients" related projects, and education and outreach efforts.	0.50	<ul style="list-style-type: none"> <li>• Work with the Washington Stormwater Center to develop and distribute a business outreach video and re-package existing stormwater educational materials for use by Local Source Control Specialists.</li> <li>• Coordinate toxics/nutrients NEP grant.</li> <li>• Coordinate agency participation in update of PS Action Agenda.</li> <li>• Develop NEP application, if appropriate.</li> </ul>	2015 state plan goal RIMP 6: Non-point sources of toxic pollution will be reduced, improving and protecting water and air quality, and preventing additional contaminated sites.
67	<b>Sustainability Technical Assistance</b> Includes Ecology's GRI report, state agency compliance with Governor's Executive Order and Agency Sustainability Team actions.	0.90	<ul style="list-style-type: none"> <li>• Sponsor and represent the agency Sustainability Team.</li> <li>• Support agency Global Reporting Framework (GRI) report.</li> </ul>	2015 state plan goal HWM 2: P2 planning facilities and other industries will use cleaner, more sustainable manufacturing processes and produce less toxic and more sustainable products.
68	<b>Policy</b> Legislative initiatives, TSCA reform, incentives, chemicals policy, CSPA update including rule revisions, green chemistry, supervisors' projects, and Network support including SAGE and RTT Steering Committee.	1.00	<ul style="list-style-type: none"> <li>• Help develop consistent state policy on toxics reform, possibly develop model states legislation.</li> <li>• Update agency toxics reduction strategy and workplan.</li> <li>• Assess effectiveness of CSPA.</li> <li>• Collaborate with OR/CA on flame retardants.</li> </ul>	Obtain support for program proposed legislative initiatives including reforming state purchasing statutes to drive markets for environmentally preferred products and services and TSCA reform.

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
69	<b>Other</b> Includes supervision, training, mentoring, communication planning, education and outreach, cross-program teams, program coordination, data entry, SharePoint maintenance, and final review of reports.	.70		Staff know what to do and how to do it and all other support systems (databases, SharePoint, etc.) are in place and working well.
<b>7. A050 – Reduce Persistent Bioaccumulative Toxins (PBTs) in the Environment</b>		<b>1.75</b>		
<p><i>Persistent, bioaccumulative toxins (PBTs) are a particular group of chemicals that can significantly affect the health of humans, fish, and wildlife. Ecology developed, and the Legislature funded in the 2001-03 biennium, implementation of a long-term strategy designed to reduce PBTs in Washington’s environment over the coming years. This strategy coordinates agency-wide efforts, engages other key organizations and interest groups, and provides for public education and information on reducing PBTs in the environment. The Legislature has enacted bans for certain products containing mercury, PBDEs, and lead. Ecology has implemented programs to reduce releases of PAHs (polycyclic aromatic hydrocarbons). Ecology continues to support the Department of Health and local health departments in eliminating sources of lead in homes. Ecology is currently developing a chemical action plan for PCBs. Following the PCB plan, Ecology will work with stakeholders to update the rule, if needed, and develop a schedule for subsequent chemical action plans.</i></p>				
71	<b>Chemical Action Plans (CAPs) – Develop and Implement</b>	0.70	<ul style="list-style-type: none"> <li>Complete PFAS cap.</li> <li>Collect/capture an additional 4,500 pounds of mercury.</li> </ul>	2015 state plan RIMP 5: Manufacturers and other users of chemicals will significantly reduce the presence of persistent, bioaccumulative toxics (PBTs) and other toxics in products.
72	<b>Product Law Enforcement (0.2 CSPA)</b>	0.00		2015 state plan RIMP 5: Manufacturers and other users of chemicals will significantly reduce the presence of persistent, bioaccumulative toxics (PBTs) and other toxics in products.
72	<b>Update PBT Rule</b>	0.60	<ul style="list-style-type: none"> <li>Update PBT rule</li> </ul>	2015 state plan RIMP 5: Manufacturers and other users of chemicals will significantly reduce the presence of persistent, bioaccumulative toxics (PBTs) and other toxics in products.
73	<b>Other</b> Includes supervision, training, mentoring, cross-program teams, data entry, SharePoint maintenance, and final review of reports.	0.45		Staff know what to do and how to do it and other support systems (databases, SharePoint, etc.) are in place and working well.
<b>9. A050 – Program Management and Administration</b>		<b>8.48</b>		
<p><i>Program management and administration is not an agency activity. Work captured in this category supports and directs the work of the program as a whole. The FTEs and cost will be allocated to all six program activities to show the full effort required for each activity. <b>VERY FEW SECTION FTEs SHOULD BE RECORDED HERE.</b></i></p>				

Categories		Total FTEs	Results expected in 15-17	Long-term success looks like
91	<b>Program Management and Administration</b>	0.00		
92	<b>Policy and Planning</b> Includes Performance Partnership Agreement (PPA) with EPA, Program Plan, Beyond Waste updates and data indicators, OFM performance measures, and statewide mandatory reporting.	1.45	<ul style="list-style-type: none"> <li>• New program plan by fall 2015.</li> <li>• New PPA by fall 2015.</li> <li>• New Beyond Waste progress report completed annually.</li> <li>• Report quarterly to OFM on performance measures.</li> <li>• Visit all sections to share program planning and OFM measures for 15-17.</li> <li>• State Solid and Hazardous Waste Plan update and implementation.</li> </ul>	HWTR staff and agency management understand how HWTR's work supports agency's priorities. HWTR achieves progress towards Beyond Waste vision and goals. Beyond Waste Plan and program plan drive HWTR activities.
93	<b>Financial Management</b> Includes grants development, grant monitoring, and budget development/monitoring.	1.15	<ul style="list-style-type: none"> <li>• 13-15 spending remains within allotments.</li> <li>• All budget-related tasks submitted on time to Central Budget office.</li> <li>• Grant applications, progress reports, and final reports submitted on time.</li> <li>• Final 13-15 agency budget includes HWTR's highest priority.</li> </ul>	Increased capacity for compliance and prevention work. Increased funding from federal grants. Section managers manage their budgets.
94	<b>Administration</b> Includes program manager, administrative assistant, secretaries, and receptionist.	4.38	<ul style="list-style-type: none"> <li>• The program accomplishes established activities within section budgets.</li> <li>• Staff understand their jobs and have the necessary tools to do them.</li> <li>• Managers complete performance reviews on time.</li> <li>• Managers and staff achieve results as specified in performance evaluations.</li> </ul>	Good working relationships exist between managers and staff. Program meets all performance targets.
95	<b>Other</b> Includes legislative support.	1.50	<ul style="list-style-type: none"> <li>• Agency management, legislative liaison, and key legislative staff understand HWTR positions on relevant legislation.</li> <li>• Bill analysis and fiscal notes are completed on time.</li> <li>• Explanation of program budget activities and performance measures presented to HWTR staff.</li> <li>• Continue to link staff work plans tied more closely to program plan.</li> </ul>	Staff know what to do and how to do it and all other support systems (databases, SharePoint, etc.) are in place and working well. Legislature adopts our supported legislation and provides sufficient resources when necessary.