
## THURSTON COUNTY

# Hazardous Waste Management Plan

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THURSTON COUNTY

WASHINGTON

SINCE 1852

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Cover photos courtesy Dave Nightingale, Special Waste Associate.

# Plan Summary

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# Introduction

The 2014 *Hazardous Waste Management Plan for Thurston County* (the Plan) is intended to help the County achieve its vision of an environment and community free of health concerns stemming from hazardous material production, use, and disposal. The 2014 Plan updates earlier plans adopted in 1998 and 1991, presenting an updated strategy for improving the management of hazardous materials in homes and businesses in Thurston County.

The Plan first describes current local conditions and programs for hazardous waste management in the county. Then, it presents a comprehensive program for reducing the quantities of hazardous materials used by homes and small businesses as well as for increasing safe handling and proper disposal of hazardous waste. The Plan builds on coordination between the County's Hazardous Waste Program and efforts by County departments, State of Washington agencies, and other local organizations addressing related human health and environmental issues.

The Plan is organized into the following chapters:

A. **Introduction and Background**, describing the planning area and the public participation process for the Plan.
B. **Analysis of Current Conditions**, covering household hazardous waste, waste from conditionally exempt small quantity generators, and the hazardous waste inventory.
C. **Legal Authority for the Program**, outlining existing regulations and the County's current enforcement program.
D. **Financing of the Program**, identifying current and alternative revenue sources.
E. **Governance Structure of the Jurisdiction**, identifying legal authorities for plan implementation decisions.
F. **Program Philosophy**, describing the guiding principles and goals for the Plan and the Hazardous Waste Program.
G. **Program Services**, briefly describing the core services the County proposes to offer.
H. **Process for Updating the Plan**, identifying how minor and major updates will be made to the Plan.
I. **Implementation Plan**, presenting more details on core and alternative services, including strategic goals, milestones, responsible entities, and costs.

Appendices present supplementary data, documentation, and details.

The 2014 *Hazardous Waste Management Plan for Thurston County* will be adopted by Thurston County the town of Bucoda and the cities of Lacey, Olympia, Rainier, Tenino, Tumwater, and Yelm in spring 2014.

# Planning Area

## Geography

Located at the southern end of Puget Sound, Thurston County has extensive water resources to protect, including Puget Sound coastline, rivers, lakes, ponds, and abundant groundwater. The County contains approximately 736 square miles, of which just over 86 percent is unincorporated. The most highly urban areas are located among the three north county cities of Olympia, Lacey, and Tumwater. Surrounding this urban core is a suburban area composed of moderate-density residential and commercial uses, some light industrial uses, and warehousing activities. This suburban belt gradually turns into an area characterized by low-density rural land uses such as farming, low-density residential developments, small towns, and commercial timberlands.

## Population

Thurston County is one of Washington's fastest-growing counties. In 2012, the county's population reached an estimated 257,000 people, up nearly 40 percent from 1997. Nearly 63 percent of residents live within the city and or urban growth areas of Olympia, Lacey, and Tumwater, and nearly 32 percent of residents live in rural, unincorporated areas of Thurston County.

The ethnic composition of Thurston County's population is gradually diversifying: 18 percent of residents describe their race as something other than "White alone." The Hispanic population in Thurston County, which represents individuals of Hispanic origin and may denote persons of any race, represents 7 percent of all residents. In about 14 percent of Thurston County households, a language other than English is spoken at home.

Thurston County's population is aging: persons age 65 and older constituted 13 percent of the total County population in 2010 and are expected to compose nearly 21 percent by 2030.

## Economy

The largest components of public and private non-farm employment were the state government (19% of jobs), retail trade (11%), health care and social assistance (11%), and local government (9%). Most private firms in Thurston County are small, but large firms represent a large share of employment. Firms with fewer than 20 employees represent 90 percent of total firms and less than 22 percent of total employment. In contrast, firms with 100 or more employees represent less than 2 percent of total firms and 51 percent of total employment.

# Analysis of Current Conditions

## Household Hazardous Waste

Household hazardous waste (HHW) is waste that has hazardous characteristics or would otherwise be a listed hazardous waste except that it is generated (or produced) in a home, rather than a business. Hazardous characteristics include toxicity, ignitability, corrosiveness, and reactivity. Common household activities such as home repair, automotive maintenance, gardening, cleaning, personal care, and hobbies often involve the use of hazardous household products or substances.

Thurston County encourages reduction and reuse of household hazardous products, to keep waste generation as low as possible. To promote safe disposal for wastes that cannot be avoided, the County operates or supports five moderate risk waste collection systems for residents:

- **HazoHouse**—a permanent collection facility at the County's Waste and Recovery Center (WARC) at Hawks Prairie.
- **WasteMobile**—County-run mobile collection events.
- **Used oil collection sites**—a system of County-operated and private collection sites for used motor oil; some locations also accept antifreeze and oil filters.
- **Medicine Return Program**—a system operated by local law enforcement agencies to collect unwanted prescription medicines safely.
- **Swap Shop**—an area of HazoHouse to reduce waste by promoting reuse by residents of less hazardous products such as paint or household cleaners; this facility has been less active recently.

## Collection Quantities

In 2012, the County collected or facilitated the collection of approximately 662,400 pounds of hazardous waste from county residents, as shown in Table PS-1. In 2012, 13,120 household customers used HazoHouse, and 250 residents used the WasteMobile. The number of customers using other collection methods is not known.

**Table PS-1. Household Hazardous Waste Collected, 2012**

| Collection Method | Pounds Collected |
|---|---|
| **HazoHouse** | 418,700 |
| **WasteMobile** | 9,900 |
| **Used oil collection sites (excluding HazoHouse and WasteMobile)** | 228,200 |
| **Medicine Return Program** | 5,600 |
| **Total** | **662,400** |

*Note: Figures in table are rounded to the nearest hundred.*

## Public Education

Thurston County's Public Health and Social Services (PHSS) Department has a team dedicated to educating the public about hazardous waste issues. Educational programs are designed to increase awareness and to reduce use, misuse, improper storage and disposal, and risks to human health and the environment related to hazardous products. Thurston County prioritizes specific topics, audiences, and education methods according to hazards, community needs, and outreach effectiveness, so specific campaign elements change over time.

We identify and implement effective ways to connect hazardous materials education to related environmental, health, and resource concerns, such as restoring Puget Sound, protecting indoor air quality, protecting drinking water, preventing chronic disease, and broader community health improvement.

## Business Hazardous Waste

Businesses that generate hazardous waste are regulated under federal, state, and local laws to ensure safe use, storage, handling, and disposal. Regulatory activities are primarily shared between local counties, which regulate conditionally exempt small quantity generators (CESQG), and the State, which regulates businesses that generate larger quantities of hazardous waste or small quantity generators that do not satisfy the conditions for exemption as CESQGs.

Businesses that qualify as CESQGs are commonly involved in auto and equipment maintenance, pesticide application, medical and dental services, dry cleaning, manufacturing, construction, commercial printing and photography, and facility and grounds maintenance. Schools and government entities involved in road maintenance, facility and grounds maintenance, and equipment repair may also qualify as CEQGS.

In 1992, Thurston County adopted a Nonpoint Source Pollution Ordinance to establish local standards for storage, disposal, and spills of hazardous materials from CESQG businesses. PHSS enforces the ordinance, provides technical assistance to CESQG businesses, and coordinates with the Department of Ecology on enforcement and assistance for businesses that generate larger quantities of hazardous waste.

## Collection Quantities

In 2012, Thurston County's HazoHouse facility collected nearly 30,200 pounds of materials from 311 small businesses. Quantities managed by private collectors were not available for 2012; however, in 2011, two major private collectors (Emerald Services and PSC) accepted 46,300 pounds of hazardous waste from businesses, representing a significant decrease from 2009 when more than 206,000 pounds were accepted by private collectors. A survey from 1992 provides some additional information. In 1992, Thurston County surveyed 312 CESQG businesses, finding that 83 percent of their hazardous waste was managed properly. This figure is provided for context with the following cautions: the data is 20 years old; the sample was not random and did not represent all types of CESQG businesses in Thurston County

at that time; and the definition of CESQG has since changed to increase the amount of waste that a business can accumulate while being considered a CESQG.

## Technical Assistance

Since 1993, the **Business Pollution Prevention (BPP)** program has helped local CESQG businesses to comply with hazardous waste regulations and implement best management practices for hazardous materials. The BPP program operates in two areas: on-site technical assistance and information services.

Through its **Integrated Pest Management** program, The County promotes integrated pest management (IPM), a holistic method to reduce the need for toxic chemicals in pest and vegetation management by state and local agencies, businesses, and the general public.

## Enforcement

PHSS leads enforcement of local hazardous waste regulations for CESQGs and households. When appropriate, the County coordinates with the Department of Ecology on enforcement, inspections, and technical assistance related to medium and large quantity generators. The four main activities of the local enforcement program are as follows:

- Permitting and inspection of HazoHouse as a moderate risk waste (MRW) facility.
- Complaint response and enforcement.
- Regulatory coordination.
- Site remediation and cleanup.

Thurston County monitors, coordinates, and oversees **site remediation and cleanup** for sites under the jurisdiction of Thurston County—those that are not covered under state or federal oversight.

# Regulations and Legal Authority for the Plan

Hazardous waste regulation starts at the federal level, with certain responsibilities delegated to the states and, in turn, local governments. In Washington State, local governments were delegated the responsibility to prepare and carry out comprehensive management plans for small quantities of hazardous waste from households and CESQGs in the 1985 amendments to the Washington State Hazardous Waste Management Act. The key local regulation governing hazardous waste is Article VI (Nonpoint Source Pollution Ordinance) of the Thurston County Sanitary Code. Businesses that generate larger amounts of hazardous waste are regulated by the Washington State Department of Ecology under state law.

The lead agency for implementing the Plan continues to be PHSS. The Department of Public Works implements individual programs related to hazardous waste collection at HazoHouse. The overall work of the Public Health and Social Services Department is governed by the Thurston County Board of Health.

# Program Philosophy

The following principles guide the Thurston County's Hazardous Waste Program:

1. Protect public health, water resources, and the environment from use, storage, handling, transport, and disposal of hazardous materials.
2. Work upstream to reduce human and environmental exposure to hazardous materials and products and to reduce reliance on publicly funded services, such as through promoting producer responsibility and safer technologies.
3. Prevent the use of, exposure to, and contamination by hazardous materials and products, taking a precautionary approach.
4. Promote the use of management practices for hazardous substances and hazardous waste that cause the least health and environmental damage.
5. Follow the Washington State hazardous waste management hierarchy which, from highest to lowest priority, promotes the following hazardous waste management strategies:
    a. Waste prevention and source reduction.
    b. Reuse.
    c. Recycling.
    d. Physical, chemical, and biological treatment.
    e. Incineration.
    f. Solidification or stabilization treatment.
    g. Landfill disposal.
6. Be a regional leader on issues related to hazardous materials, including leading by example and promoting policies that protect public health and the environment from hazardous materials.
7. Encourage greater coordination among county departments, government agencies, businesses, and nongovernmental organizations to increase program efficiencies and effectiveness and to minimize gaps.
8. Ensure all county residents and businesses have equitable and convenient access to program services.
9. Improve efficiency and effectiveness of hazardous waste programs by measuring progress regularly and prioritizing services according to hazards, toxicity, exposure, and community needs.
10. Raise community awareness, foster an ethic of responsibility, and empower those who produce, sell, and use hazardous products to protect human health and the environment.
11. Secure stable funding, staffing, and other resources necessary to achieve the goals of the plan.

The Hazardous Waste Program is intended to accomplish the following goals:

| |
|---|
| **1. Prevention, Safe Use, and Proper Storage** |
| 1.1 Reduce County use of hazardous products and ensure all hazardous products that cannot be reduced are properly used, stored, and handled. |
| 1.2 Encourage the use of alternatives to hazardous products by businesses and residents, including environmentally preferable purchasing. |
| 1.3 Increase waste prevention, which conserves resources and reduces demand for disposal and recycling services. |
| 1.4 Prevent poisoning and reduce acute (short-term) and chronic (long-term) exposure to hazardous chemicals at home and school. |
| 1.5 Protect groundwater, surface water, soils, sediments, and public and private property from hazardous materials contamination. |
| 1.6 Prevent and reduce the improper use and storage of hazardous materials so as to eliminate unnecessary risks to human and environmental health, including spills to the environment. |
| **2. Proper Disposal** |
| 2.1 Increase the proper management of hazardous waste that cannot be prevented through source reduction. |
| 2.2 Increase the percentage of hazardous waste collected (that cannot be prevented through source reduction). |
| 2.3 Reduce improper and illegal disposal of hazardous materials so as to reduce unnecessary risks to human health, the environment, public infrastructure. |
| **3. Enforcement, Compliance, and Clean Up** |
| 3.1 Achieve 100% compliance in businesses safely managing chemicals that cannot be reduced. |
| 3.2 Increase the rate of clean-up of contaminated sites under the jurisdiction of Thurston County (that are too small for state or federal oversight). |
| 3.3 Maintain high compliance with the Nonpoint Source Pollution Ordinance. |
| **4. Program Management and Administration** |
| 4.1 Use a systematic approach to chemical policy and regulations, identify emerging threats, and work upstream including support for product stewardship and producer responsibility. |
| 4.2 Manage hazardous materials in a cost-effective manner by:<br>– Using best practices, appropriate enforcement mechanisms, and educational tools for residents, businesses, and policymakers.<br>– Identifying priority focal areas to address the highest threats based on hazards, toxicity, and risk. |
| 4.3 Continuously improve protection of public health and environmental quality through ongoing evaluation of the coverage and effectiveness of program services. |
| 4.4 Identify and address changes in resident and business needs, behaviors, and obstacles to prevention, safe use and storage, and proper disposal. |
| 4.5 Create partnerships among county departments and with government agencies, schools, businesses, and other organizations to better address hazardous materials. |

# Program Financing

Thurston County's programs to address hazardous waste are funded primarily through:

- Tip fees collected at the Thurston County Waste and Recovery Center for solid waste and SQG business hazardous waste.
- Grants provided by the Department of Ecology including Coordinated Prevention Grants (CPG) and Site Hazard Assessment Grants (SHA).

A minimal amount of funding has been provided by agreements with other departments in Thurston County and other government agencies.

The table below presents the dollar amounts and percentage shares of funding by source for County hazardous-waste-related activities for 2009–2012. While tip fees compose more than three-quarters of program funding, grants from the Department of Ecology are also a vital source of funding.

**Table PS-2. Dollars by Funding Source for Thurston County Spending on Hazardous Waste**

| | Average 2009–2012 | |
|---|---|---|
| **Funding Source** | **Dollars** | **Percent** |
| **Ecology Grants** | $285,989 | 21% |
| **Tip Fees (for HazoHouse)** | $412,894 | 31% |
| **Tip Fees (Other)** | $607,746 | 46% |
| **Other Sources** | $23,812 | 2% |
| **Total** | **$1,330,442** | **100%** |

*Notes: Figures may not sum to 100 percent because they are rounded. Capital costs for construction of the HazoHouse ($2,117,866) in 2011 are not included in this table.*

# Process for Updating the Plan

This Hazardous Waste Management Plan is Thurston County's third plan, and it updates previous plans adopted in 1998 and 1991. To involve the public in updating the Plan, the County consulted with the Thurston County Solid Waste Advisory Committee (SWAC) and each participating jurisdiction. The County convened a stakeholder committee with meetings open to the public, conducted a public comment period on the Plan and determination of non-significance under the State Environmental Policy Act, and formally presented the Plan to the Thurston County Board of Health for adoption.

# Program Services and Implementation Plan

The Implementation Plan describes programs to help Thurston County achieve the goals of its Hazardous Waste Management Plan for the planning period of 2014–2018. Programs address six required elements and one optional element:

- Household Hazardous Waste Collection (HHWC)
- Household and Public Education (HPE)
- Small Business Technical Assistance (SBTA)
- Small Business Collection Assistance (SBCA)
- Enforcement (E)
- Used Oil Recycling (UOCRO)
- Leadership, Policy, Administration, and Evaluation (LPAE)—*optional element*

Table PS-3 on page PS-11 lists the core programs that Thurston County commits to conducting during the planning period, unless circumstances require the County to amend or revise the Plan. **Chapter I (Implementation Plan)** also describes alternative options that would be reasonable additional programs for Thurston County to pursue but for which funding is not currently available.

## Table PS-3. Core Programs for 2014–2018: Program Status, Costs, and Schedule

| Core Program | Program Status | Estimated Annual Cost in $1,000s | Anticipated Schedule 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| **Household Hazardous Waste Collection** | | | | | | | |
| HHWC-1. HazoHouse | Current | $350 to $400 | X | X | X | X | X |
| HHWC-2. Wastemobile | Current | $25 to $30 | X | X | X | X | X |
| HHWC-3. Medicine Return Program | Current | Minimal | X | X | X | X | X |
| HHWC-4. Swap Shop | Resuming | In HHWC-1 | X | X | X | X | X |
| HHWC-5. Syringe Collection and Disposal Program | New | $10 to $30 | X | X | X | X | X |
| HHWC-6. Reassessment of Resident Collection Needs | New | $5 to $50 | | X | | | |
| HHWC-7. Program Revisions to Address Resident Collection Needs | New | Unknown | | | | X | X |
| **Household and Public Education** | | | | | | | |
| HPE-1. Toxics Reduction Education and Outreach | Current | $200 to $400 | X | X | X | X | X |
| HPE-2. Environmental Health Information Line | Current | In HPE-1 | X | X | X | X | X |
| HPE-3. Reassessment of Resident and Education Needs | New | $5 to $50 | | X | | | |
| HPE-4. Program Revisions to Address Resident Education Needs | New | Unknown | | | | X | X |
| **Small Business Technical Assistance** | | | | | | | |
| SBTA-1. Business Pollution Prevention (BPP) Program | Current | $200 to $400 | X | X | X | X | X |
| SBTA-2. Inspection of Businesses in Wellhead Protection Areas | Current | In SBTA-1 | X | X | X | X | X |
| SBTA-3. Business Hazardous Waste Information Line | Current | In SBTA-1 | X | X | X | X | X |
| SBTA-4. IPM and Pesticide Reduction Projects | Current | $40 to $60 | X | X | X | X | X |
| SBTA-5. Assessment of Methods to Identify New Businesses | New | $3 to $10 | | | X | | |
| **Small Business Collection Assistance** | | | | | | | |
| SBCA-1. Small Quantity Generator Business Waste Collection | Current | In HHWC-1 | X | X | X | X | X |
| SBCA-2. Reassessment of Small Business Collection Needs | New | $5 to $50 | | | X | | |
| SBCA-3. Program Revisions to Address Business Collection Needs | New | Unknown | | | | | X |

| Core Program | Program Status | Estimated Annual Cost in $1,000s | Anticipated Schedule 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| **Enforcement** | | | | | | | |
| E-1. Inspections, Complaint Response, and Enforcement | Current | $150 to $250 | X | X | X | X | X |
| E-2. Regulatory Coordination | Current | In E-1, E-2, HPE-1, SBTA-1 | X | X | X | X | X |
| E-3. Site Hazard Assessment | Current | $100 to $150 | X | X | X | X | X |
| **Used Oil Collection, Recycling, and Outreach** | | | | | | | |
| UOCRO-1. Used Oil Collection Sites | Current | $15 to $20 | X | X | X | X | X |
| UOCRO-2. Oil Filter and Antifreeze Collection | Current | In HHWC-1, UOCRO-1 | X | X | X | X | X |
| **Leadership, Policy, Administration, and Evaluation** | | | | | | | |
| LPAE-1. Thurston County Government Operations | Current | In SBTA-3 | X | X | X | X | X |
| LPAE-2. Product Stewardship Support | Current | $25 | X | X | X | X | X |
| LPAE-3. Required Reporting | Current | In specific programs | X | X | X | X | X |
| LBAE-4. In-Depth Program Evaluation | Current | In specific programs | X | X | X | X | X |
| LPAE-5. Assessment of Alternative Funding Sources | New | $5 to $30 | X | | | | |
| LPAE-6. Hazardous Waste Management Plan Updates | Recurring | $50 to $100 | | | | | X |

*Accomplishments of current programs are described in **Chapter B (Analysis of Current Conditions)** and **Chapter C (Legal Authority and Enforcements)**. Additional information on programs is provided in **Chapter G (Program Services)** and **Chapter I (Implementation Plan)**.*

# Chapter A. Introduction and Background

## Contents



## Tables and Figures

# Purpose of the Plan

The 2014 *Hazardous Waste Plan for Thurston County* (the Plan) is intended to help the County achieve its vision of an environment with residents free of health concerns stemming from hazardous material production, use, and disposal. The 2014 Plan updates earlier plans adopted in 1998 and 1991, presenting an updated strategy for improving the management of hazardous materials in homes and businesses in Thurston County.

The Plan first describes current local conditions and programs for hazardous materials management in the county. Then, it presents an ambitious and comprehensive program for reducing the quantities of hazardous materials used by homes and small businesses as well as increasing safe handling and proper disposal of hazardous waste. The Plan builds on coordination between the County's Hazardous Waste Program and efforts by County departments, State of Washington agencies, and other local organizations addressing related human health and environmental issues.

The 2014 *Hazardous Waste Plan for Thurston County* will be adopted by Thurston County and the cities of Bucoda, Lacey, Olympia, Rainier, Tenino, Tumwater, and Yelm.

# Description of the Planning Area

This section provides an overview of the geography and demographics of Thurston County; together, the county's geography and demographics inform the need for and help guide current and future hazardous waste planning efforts. This section provides the context for which this plan is written, and it highlights changes that have taken place since previous plans were adopted. Geography, climate, water resources, population, growth rate, land use, and economics influence the services provided by the local Hazardous Waste Program.

Unless otherwise noted, all information was derived from the Thurston Regional Planning Council's 2012 report *The Profile: For Thurston County; the Cities/Towns of Bucoda, Lacey, Olympia, Rainier, Tenino, Tumwater, and Yelm; and the Confederated Tribes of the Chehalis Reservation and the Nisqually Indian Tribe*, referenced herein as "The Profile."

## Geography

Thurston County is located in southwest Washington at the southern end of Puget Sound. Landforms vary from coastal lowlands in the north part of the county to Cascade foothills in the southeast. Generally, the county is a region of prairies and rolling lowlands, broken by minor hills and a few peaks in the northwest and southeast corners that rise to about 2,600 feet.

More than 90 miles of Puget Sound coastline extend into the county, creating four points of land between five "fingers" of water. Three major river basins—the Nisqually in the east, the Deschutes in the central area, and the Chehalis in the south—drain the land. The Nisqually and Deschutes rivers drain into Puget Sound, and the Chehalis River leaves Thurston County and drains into the Pacific Ocean.

Glacial activity left more than 100 lakes and ponds in Thurston County. The two largest lakes are Alder Lake and Skookumchuck Reservoir, impoundments of the Nisqually and Chehalis rivers, respectively. The two largest natural lakes are Black Lake (576 acres) and Summit Lake (522 acres), both in the western part of the county.

The County contains approximately 736 square miles of land, including lakes and other land-locked water bodies (Table A-1). As of 2011, just over 86 percent of the total area was unincorporated Thurston County (similar to the 87 percent in 1997 and down from 95 percent in 1991). The remaining 13 percent of Thurston County land area is divided among incorporated cities and towns and their Urban Growth Areas (UGAs). Less than 1 percent of the county is reservation land. The largest cities are Olympia, Lacey, and Tumwater, three contiguous towns at the heads of Budd and Henderson inlets. Neighboring counties are Mason County to the northwest, Grays Harbor County to the west, Lewis County to the south, and Pierce County to the east.

**Table A-1. Thurston County Land Area (2011)**

| Jurisdiction | | Acres | Land Area Square Miles | Percent |
|---|---|---|---|---|
| **Bucoda** | Total | 380 | 0.6 | 0.1% |
| **Lacey** | City | 10,624 | 16.6 | 2.3% |
| | UGA | 10,571 | 16.5 | 2.2% |
| | Total | 21,195 | 33.1 | 4.5% |
| **Olympia** | City | 11,859 | 18.5 | 2.5% |
| | UGA | 4,119 | 6.4 | 0.9% |
| | Total | 15,978 | 24.9 | 3.4% |
| **Rainier** | City | 1,105 | 1.7 | 0.2% |
| | UGA | 319 | 0.5 | 0.1% |
| | Total | 1,424 | 2.2 | 0.3% |
| **Tenino** | City | 924 | 1.4 | 0.2% |
| | UGA | 65 | 0.1 | 0.0% |
| | Total | 989 | 1.5 | 0.2% |
| **Tumwater** | City | 9,274 | 14.5 | 2.0% |
| | UGA | 4,954 | 7.7 | 1.1% |
| | Total | 14,228 | 22.2 | 3.0% |
| **Yelm** | City | 3,634 | 5.7 | 0.8% |
| | UGA | 2,396 | 3.8 | 0.5% |
| | Total | 6,030 | 9.4 | 1.3% |
| **Grand Mound UGA** | Total | 983 | 1.5 | 0.2% |
| **Chehalis Reservation** | | 833 | 1.3 | 0.2% |
| **Nisqually Reservation** | | 1,725 | 2.7 | 0.4% |
| Total **Cities** | | 37,799 | 59.1 | 8.0% |
| Total **UGA** | | 23,407 | 36.6 | 5.0% |
| Total **Reservations** | | 2,558 | 4.0 | 0.5% |
| Rural Unincorporated **County** | | 407,074 | 636.1 | 86.5% |
| Thurston County **Total** | | 470,839 | 735.7 | 100.0**%** |

*Source: Thurston Regional Planning Council, The Profile, November 2012, page I-17, Table I-2.*
*Explanation: UGA – Urban Growth Area: unincorporated area designated to be annexed into the city limits to accommodate future urban growth.*

# Climate

Thurston County's climate is influenced by its proximity to Puget Sound and the maritime air masses that move through the region from the Pacific Ocean. Summers are warm and generally dry, while winters are mild and wet. Some form of cloud cover is present around 86 percent of the year, with more than a trace of rain falling on about half the days of the year. The City of Olympia receives an average of 50 inches of rainfall annually.

**Table A-2. Thurston County Average Temperature, Precipitation, and Snowfall**

| | Average Temperature Degrees Fahrenheit | | | | Precipitation (Inches) | | Average Total Snowfall (Inches) |
|---|---|---|---|---|---|---|---|
| | 2011 | | Normal | | | | |
| Month | High | Low | High | Low | 2011 | Normal | Normal |
| Jan | 46.3 | 34.1 | 44.6 | 31.7 | 7.3 | 8.0 | 7.3 |
| Feb | 44.9 | 29.3 | 49.1 | 32.4 | 4.5 | 5.6 | 3.6 |
| Mar | 50.7 | 35.5 | 53.2 | 33.8 | 9.0 | 5.2 | 1.9 |
| Apr | 52.7 | 34.7 | 58.8 | 36.5 | 4.1 | 3.3 | 0.1 |
| May | 60.4 | 40.1 | 65.6 | 41.6 | 4.2 | 2.1 | 0..0 |
| Jun | 66.8 | 46.8 | 70.8 | 46.7 | 0.7 | 1.6 | 0.0 |
| Jul | 73.9 | 49.7 | 77.1 | 49.5 | 1.4 | 0.7 | 0.0 |
| Aug | 76.7 | 49.3 | 77.0 | 49.5 | 0.3 | 1.1 | 0.0 |
| Sep | 74.6 | 47.3 | 71.6 | 45.3 | 1.6 | 2.1 | 0.0 |
| Oct | 58.7 | 41.9 | 60.4 | 39.8 | 4.3 | 4.7 | 0.0 |
| Nov | 49.1 | 31.8 | 50.4 | 35.5 | 8.8 | 8.2 | 1.3 |
| Dec | 43.6 | 30.2 | 44.8 | 32.6 | 4.7 | 8.1 | 3.9 |
| Average | 58.2 | 39.2 | 60.3 | 39.6 | | | |
| **Total** | | | | | **50.7** | **50.9** | **18.0** |

*Source: Thurston Regional Planning Council, The Profile, 2012, page I-16, Table I-1.*
*Note: "Normal" is the statistical average of data from June 1, 1948 to June 30, 2008.*

# Water Resources

While drizzly days are key to defining the character of Thurston County, surface water (Puget Sound, lakes, and rivers) gives the county some of its most attractive features. The connecting link—groundwater—is perhaps the most important natural resource in Thurston County. Groundwater is the source of water for nearly all of the county's residential, agricultural, and industrial needs. Only two communities, Summit Lake and some of Lake St. Clair homeowners, use lake water as their drinking water source. Protecting and maintaining high-quality water in surface waters, groundwater, and throughout the Puget Sound basin is essential to protecting human health and the ecological integrity of the region.

# Groundwater

Groundwater is an important natural resource as nearly the entire county relies on it for residential, agricultural, and industrial needs. Water supply in Thurston County is provided by a variety of municipalities, water districts, private systems, and individual wells. Approximately 99 percent of the county's residential drinking water comes from groundwater through more than 1,200 public water supply systems and more than 8,000 private wells. Most systems are located in urban areas, while rural residents generally use individual wells. An abundant supply of groundwater is available in the county, except in certain foothills and some mountainous areas. The major drinking water protection areas are located in McAllister Springs, Allison Springs, and near Grand Mound.

Most wells have water levels within 50 feet of the land surface. Groundwater is abundant in relatively shallow aquifers because retreating glaciers left porous deposits of sand and gravel over the original bedrock. These deposits are excellent for storing rainfall and are recharged almost entirely from rainfall in the immediate area. The aquifers store groundwater until it moves to a discharge area such as a natural spring or is pumped to the surface by wells. Most recharge occurs during the heaviest months of precipitation, from October to March.

Groundwater is also an important source of stream flows during dry summer months, which support the county's riparian ecosystems and fisheries as well as the recreational opportunities they provide.

# Surface Water

The major rivers and streams of Thurston County contain a variety of fish, including wild salmon. With five major inlets leading to the Puget Sound, Thurston County plays a significant role in maintaining the health of this critical marine environment along the northern boundary of the county. In addition to serving as habitat for endangered orcas, Puget Sound provides fish and shellfish resources and recreation opportunities. Healthy surface waters are important for protecting the health of Thurston County residents who eat local seafood and play along local rivers and beaches.

# Ground and Surface Water Pollution Prevention

Thurston County along with many state agencies, local jurisdictions, and local utilities work to protect groundwater and surface water from pollution, including hazardous materials. This section briefly describes key local efforts; details on pollution prevention efforts conducted by Thurston County's Hazardous Waste Program are described in **Chapter B (Analysis of Current Conditions)**.

## Wellhead Protection

As water seeps into the ground and recharges aquifers, it can potentially mobilize and carry with it contaminants deposited on or under the ground. Consequently, controlling contamination sources within the recharge areas is critical to maintaining high-quality drinking water.

At the state level, both the Washington State Department of Health and Department of Ecology have important roles in groundwater protection. Within Thurston County, local jurisdictions have developed joint wellhead protection programs, which coordinate with Thurston County's Hazardous Waste Program to protect drinking water resources. On behalf of municipal water purveyors, the Hazardous Waste Program identifies and inspects businesses located in wellhead protection areas.

## On-site Sewage Treatment Systems

A septic tank and drainfield, or on-site sewage system, is a disposal and treatment system for wastewater from households and small businesses typically used where sanitary sewers are unavailable. In Thurston County, approximately 70,000 septic systems are in operation. Septic system efficiency relies heavily on appropriate design and siting, regular maintenance, and proper use.

Septic systems are not designed to treat household hazardous wastes, which can damage septic systems and cause sewage to reach the ground's surface or chemicals to enter surface or groundwater. Damaged or failed septic systems pose a significant concern when they are located near sensitive aquifer recharge areas or wellhead protection areas.

In 2008, Thurston County adopted its *On-Site Sewage System Management Plan* to identify areas where septic systems might pose a risk to public health and to develop strategies for managing systems in those areas.[1] The plan identified nine areas where septic systems may pose an increased public health risk:

- Henderson Watershed Protection Area
- Nisqually Reach Shellfish Protection Area
- Eld Inlet
- Totten Inlet
- Budd Inlet
- Summit Lake
- Southern Thurston County (Scatter Creek Area)
- McAllister Springs Aquifer Recharge Area (southeast of Lacey)
- Shana Park/East Olympia Wellhead Areas

## Wastewater Pollution Prevention

The LOTT Clean Water Alliance (LOTT) is a nonprofit partnership between Lacey, Olympia, Tumwater, and Thurston County that helps preserve and protect public health, the environment, and water resources by providing wastewater management and reclaimed water production services for the

[1] More information on Thurston County's *On-Site Sewage System Management Plan* can be found on Thurston County's website at http://www.co.thurston.wa.us/health/ehadm/oss_imp.html.

urbanized area of north Thurston County.[2] As a way to prevent pollutants from entering the wastewater plant, LOTT regulates the discharge of significant quantities of wastewater and materials that could adversely affect the collection system, the sewage treatment plant, its workers, or Budd Inlet.

The LOTT wastewater treatment plant operates an Industrial Pretreatment Program that issues pretreatment permits to Significant Industrial Users and issues discharge authorizations (which are less detailed than permits) to smaller businesses that discharge potentially problematic wastes to the sewer. Significant Industrial Users are required to adequately pretreat their wastewater before discharging it to the public system. Twelve customers are currently permitted as Significant Industrial Users:

- Thurston County Waste & Recovery Center
- Weyerhaeuser Corporation
- Nutriom, LLC
- Unigen Pharmaceuticals, Inc.
- Crown Cork & Seal, Inc.
- Georgia-Pacific Corporation
- J. R. Setina Manufacturing Company, Inc.
- Roy's Designs, Inc.
- Fish Brewing Company
- Pepsi Northwest Beverages, LLC
- C T Specialties
- Winsor Fireform, LLC

LOTT also sets limits for the amount of contaminants allowable in wastewater discharged to the sewer system, including heavy metals; fats, oils, greases; and organic chemicals. LOTT treatment facilities include the Budd Inlet Treatment Plant, Budd Inlet Reclaimed Water Plant, and the Hawks Prairie Reclaimed Water Satellite. Other wastewater treatment plants in Thurston County are the Yelm Class A Water Reclamation Facility, Grand Mound Wastewater Facility, and Tenino Wastewater Treatment Plant.

## Stormwater Runoff

Stormwater runoff is water from rain that does not immediately soak into the ground. Instead, it flows across hard surfaces such as driveways, streets, lawns, and roofs, and can become contaminated by hazardous materials spills, improperly stored hazardous materials, pesticides and fertilizers, pet waste, oil, and other pollutants. This runoff flows into storm drains and ditches that carry the water to streams and Puget Sound or into the soil, where it can seep into groundwater. The runoff does not usually enter a sanitary sewer for treatment and cleaning. Low-impact development techniques can clean stormwater to a certain extent, but preventing contaminated stormwater is the best approach.

[2] Details on the LOTT Clean Water Alliance can be found on its website at http://www.lottcleanwater.org.

Thurston County Storm and Surface Water Utility works to minimize or prevent stormwater pollution as required by the County's National Pollutant Discharge Elimination System (NPDES) Phase II Permit, which is issued by the Department of Ecology and based on the federal Clean Water Act.[3] Thurston County's Hazardous Waste Program identifies and inspects small businesses that have hazardous substances or wastes on-site to enforce the County's Nonpoint Source Pollution Ordinance (Article VI of the Thurston County Sanitary Code) and promote practices that reduce the risk of hazardous waste leaks and spills.

Locally, stormwater utilities in Lacey, Olympia, and Tumwater are similarly required to prevent stormwater pollution by their NPDES Phase II Permits. At the state level, the Department of Ecology and the Puget Sound Partnership also implement programs to prevent polluted stormwater runoff.

## Population

In 2012, Thurston County's population reached an estimated 256,800 people, up 38 percent from the 1997 figure of 197,600 cited in the 1998 Hazardous Waste Plan, and an increase of 66 percent from the first writing in 1989 when the population was 155,150.

## Geographic Distribution

Population is primarily concentrated in urban areas located in the northern part of the county. An estimated 109,000 people live in the cities of Olympia, Lacey, and Tumwater, accounting for approximately 42 percent of the county's total population. When residents in adjacent Urban Growth Areas (UGAs) are included, Olympia, Lacey, and Tumwater account for nearly 63 percent of the county's population. Nearly 32 percent of residents live in rural, unincorporated areas of Thurston County. This urban/rural distribution of residents did not change significantly between 1995 and 2012, as shown in Table A-3.

[3] Details on the Thurston County Storm and Surface Water Utility can be found its website at http://www.co.thurston.wa.us/stormwater.

**Table A-3. Population Distribution by Jurisdiction**

| Jurisdiction | | 1995 | 2000 | Estimate 2005 | 2010 | 2011 | Preliminary Estimate 2012 |
|---|---|---|---|---|---|---|---|
| **Bucoda** | **Total** | **600** | **628** | **650** | **562** | **560** | **560** |
| **Lacey** | City | 25,880 | 31,226 | 33,180 | 42,393 | 42,830 | 43,600 |
| | UGA | 27,830 | 28,630 | 31,520 | 33,170 | 33,380 | 33,640 |
| | **Total** | **53,710** | **59,860** | **64,700** | **75,560** | **76,210** | **77,240** |
| **Olympia** | City | 37,730 | 42,514 | 43,330 | 46,478 | 46,780 | 47,500 |
| | UGA | 8,670 | 9,270 | 10,980 | 11,840 | 11,910 | 12,050 |
| | **Total** | **46,400** | **51,780** | **54,310** | **58,320** | **58,690** | **59,550** |
| **Rainier** | City | 1,420 | 1,492 | 1,585 | 1,794 | 1,825 | 1,825 |
| | UGA | 160 | 165 | 175 | 110 | 110 | 110 |
| | **Total** | **1,580** | **1,655** | **1,760** | **1,905** | **1,935** | **1,935** |
| **Tenino** | City | 1,390 | 1,447 | 1,500 | 1,695 | 1,700 | 1,705 |
| | UGA | 140 | 150 | 165 | 15 | 15 | 15 |
| | **Total** | **1,530** | **1,600** | **1,665** | **1,710** | **1,715** | **1,720** |
| **Tumwater** | City | 12,050 | 12,698 | 12,950 | 17,371 | 17,570 | 17,900 |
| | UGA | 6,860 | 7,280 | 8,410 | 6,350 | 6,120 | 6,170 |
| | **Total** | **18,910** | **19,980** | **21,360** | **23,720** | **23,690** | **24,070** |
| **Yelm** | City | 2,295 | 3,289 | 4,455 | 6,848 | 7,005 | 7,100 |
| | UGA | 1,085 | 1,095 | 1,130 | 1,355 | 1,420 | 1,425 |
| | **Total** | **3,380** | **4,385** | **5,585** | **8,200** | **8,425** | **8,525** |
| **Grand Mound UGA** | **Total** | **1,010** | **1,015** | **1,025** | **1,345** | **1,370** | **1,195** |
| **Chehalis Reservation** | **Total** | **35** | **35** | **35** | **65** | **70** | **70** |
| **Nisqually Reservation** | **Total** | **615** | **600** | **580** | **575** | **595** | **595** |
| **Rural Unincorporated** | **Total** | **58,650** | **65,820** | **72,430** | **80,300** | **80,850** | **81,340** |
| **Thurston County** | **TOTAL** | **186,400** | **207,355** | **224,100** | **252,264** | **254,100** | **256,800** |

*Source: Thurston Regional Planning Council, The Profile, 2012, page II-10, Table II-2.*
*Notes: UGA - Urban Growth Area. Unincorporated area designated to be annexed into city limits over 20 years to accommodate urban growth. Rural unincorporated county is the portion of the unincorporated county that lies outside UGA and tribal reservation boundaries.*

# Race, Ethnicity, and Language

The ethnic composition of Thurston County's population is gradually diversifying. In 1970, more than 98 percent of the population was Caucasian. By the 2010 United States Census, that figure had dropped 82 percent, as shown in Table A-4. People who do not characterize their race as "White alone" are most likely to describe themselves as being of two or more races (5%) or Asian alone (5%). The Hispanic population in Thurston County, which represents individuals of Hispanic origin and may denote persons of any race, represents 7 percent of all residents.

**Table A-4. Population by Race and Hispanic Origin in Thurston County and Washington State, U.S. Census 2010**

| | Thurston County | | Washington State | |
|---|---|---|---|---|
| | Population | Percent | Population | Percent |
| White Alone | 207,856 | 82% | 5,196,362 | 77% |
| Black/African American Alone | 6,752 | 3% | 240,042 | 4% |
| American Indian & Alaska Native Alone | 3,515 | 1% | 103,869 | 2% |
| Asian Alone | 13,037 | 5% | 481,067 | 7% |
| Native Hawaiian & Other Pacific Islander Alone | 1,961 | 1% | 40,475 | 1% |
| Other Race Alone | 5,648 | 2% | 349,799 | 5% |
| **Total Single Race** | **238,769** | **95%** | **6,411,614** | **95%** |
| **Two or More Races Total** | **13,495** | **5%** | **312,926** | **5%** |
| *Hispanic Origin* | *17,787* | *7%* | *755,790* | *11%* |
| **Total Population** | **252,264** | **100%** | **6,724,540** | **100%** |

*Source: Thurston Regional Planning Council, The Profile, 2012, page II-28, Table II-15.*
*Note: Hispanic origin is ethnicity tracked separately from race; a person of Hispanic origin may be of any race.*

Data collected as part of the U.S. Census Bureau's 2006—2010 American Community Survey (ACS) included language spoken at home. The Census Bureau defines as a "linguistically isolated" household as a household in which no member 14 years old or older: a) solely speaks English, or b) speaks English "very well." In 13.5 percent of Thurston County households, a language other than English is spoken at home. Approximately 1.9 percent of Thurston County households were "linguistically isolated." Households in Bucoda, Lacey, and Olympia are more likely to be linguistically isolated than households in other parts of the county.

After English, Spanish is the single most commonly spoken language, used in 5.1 percent of households (0.6% linguistically isolated). The Census Bureau also estimated that 4.7 percent of households speak Asian and Pacific Island languages (0.4% linguistically isolated), and 3.3 percent of households speak other Indo-European languages (0.2% linguistically isolated).

**Table A-5. Language Spoken at Home and Linguistically Isolated Households by Jurisdiction U.S. Census 2006-2010 Five-Year Estimate**

| Language Spoken at Home *Linguistically isolated* | Bucoda | Lacey | Olympia | Rainier | Tenino | Tumwater | Yelm | Uninc. County | Thurston County Total |
|---|---|---|---|---|---|---|---|---|---|
| **English** | 89.4% | 81.1% | 87.0% | 95.9% | 93.1% | 89.4% | 90.6% | 87.3% | **86.5%** |
| **Spanish** | 5.6% | 5.9% | 4.7% | 1.9% | 2.5% | 4.6% | 3.3% | 5.2% | **5.1%** |
| ***Isolated*** | *5.6%* | *0.6%* | *0.6%* | *0.0%* | *0.0%* | *0.1%* | *0.0%* | *0.7%* | ***0.6%*** |
| ***Not isolated*** | *0.0%* | *5.3%* | *4.0%* | *1.9%* | *2.5%* | *4.5%* | *3.3%* | *4.5%* | ***4.5%*** |
| **Other Indo-European languages** | 0.0% | 4.8% | 2.6% | 1.3% | 3.1% | 2.9% | 3.3% | 3.2% | **3.3%** |
| ***Isolated*** | *0.0%* | *0.1%* | *0.3%* | *0.0%* | *0.0%* | *0.4%* | *0.0%* | *0.2%* | ***0.2%*** |
| ***Not isolated*** | *0.0%* | *4.7%* | *2.3%* | *1.3%* | *3.1%* | *2.5%* | *3.3%* | *2.9%* | ***3.1%*** |
| **Asian and Pacific Island languages** | 5.1% | 7.7% | 5.2% | 1.0% | 1.3% | 2.9% | 2.9% | 3.9% | **4.7%** |
| ***Isolated*** | *0.0%* | *2.3%* | *1.8%* | *0.0%* | *1.3%* | *0.1%* | *0.0%* | *0.5%* | ***1.1%*** |
| ***Not isolated*** | *5.1%* | *5.4%* | *3.5%* | *1.0%* | *0.0%* | *2.8%* | *2.9%* | *3.4%* | ***3.7%*** |
| **Other languages** | 0.0% | 0.4% | 0.5% | 0.0% | 0.0% | 0.2% | 0.0% | 0.4% | **0.4%** |
| ***Isolated*** | *0.0%* | *0.0%* | *0.0%* | *0.0%* | *0.0%* | *0.0%* | *0.0%* | *0.1%* | ***0.0%*** |
| ***Not isolated*** | *0.0%* | *0.4%* | *0.5%* | *0.0%* | *0.0%* | *0.2%* | *0.0%* | *0.3%* | ***0.3%*** |
| **Total percent of households linguistically isolated** | **5.6%** | **3.0%** | **2.7%** | **0.0%** | **1.3%** | **0.6%** | **0.0%** | **1.5%** | **1.9%** |

*Source: Thurston Regional Planning Council, The Profile, 2012, page II-30, Table II-17. U.S. Census Bureau: 2006-2010 American Community Survey Five-Year Estimate.*

*Note: A linguistically isolated household is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English "very well." In other words, all members 14 years old and over have at least some difficulty with English.*

## Age Distribution

Thurston County's population is aging. In 2010, the median age of a Thurston County resident was 38.5 years in 2010, up from 33.6 years in 1990. Persons age 65 and older are composing a growing share of the population. In 2010, persons age 65 and older constituted 13.0 percent of the total County population, compared to 11.4 percent in 2000. The percentage of residents age 65 and older is expected to climb to 15.0 percent by 2015 and 20.6 percent by 2030.

## Growth Rate

Thurston County is one of Washington's fastest-growing counties, primarily through in-migration of new residents. From 2000 to 2010, 77 percent of new residents came though migration rather than birth, far more than the statewide average of 55 percent.

The 2012 Population Forecast (Thurston Regional Planning Council) projects the population to reach about 296,000 in 2020 (a 17% increase from 252,300 in 2010). In the next decade, the population is project to grow 18 percent to reach nearly 350,000 in 2030.

**Table A-6. Population Forecast by Jurisdiction Thurston County, 2010–2035**

| Jurisdiction | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|---|
| **Bucoda** | 560 | 570 | 575 | 675 | 890 | **1,065** |
| **Lacey & UGA** | 75,540 | 79,660 | 88,610 | 96,990 | 101,510 | **107,720** |
| **Olympia & UGA** | 58,310 | 61,820 | 67,850 | 74,030 | 79,940 | **84,400** |
| **Rainier & UGA** | 1,905 | 2,030 | 2,145 | 2,310 | 2,840 | **3,150** |
| **Tenino & UGA** | 1,710 | 1,725 | 1,760 | 2,030 | 2,750 | **3,190** |
| **Tumwater & UGA** | 23,350 | 25,830 | 30,840 | 35,620 | 40,160 | **42,880** |
| **Yelm & UGA** | 8,200 | 9,685 | 14,050 | 18,595 | 22,455 | **26,285** |
| **Grand Mound UGA** | 1,550 | 1,480 | 1,670 | 1,630 | 1,775 | **1,885** |
| **Chehalis Reservation** | 70 | 75 | 90 | 105 | 125 | **160** |
| **Nisqually Reservation** | 595 | 750 | 985 | 1,035 | 1,070 | **1,120** |
| **Total Cities & UGAs** | 171,120 | 182,800 | 207,500 | 229,890 | 252,320 | **270,570** |
| **Total Reservations** | 665 | 825 | 1,070 | 1,145 | 1,200 | **1,280** |
| **Rural Unincorporated** | 80,470 | 82,820 | 87,290 | 91,130 | 95,030 | **98,740** |
| **County Total** | **252,300** | **266,500** | **295,900** | **322,200** | **348,600** | **370,600** |

*Source: Thurston Regional Planning Council, The Profile, 2012, page II-24, Table II-11.*
*Notes: UGA - Urban Growth Area. Unincorporated area designated to be annexed into city limits over 20 years to accommodate urban growth. Rural unincorporated county is the portion of the unincorporated county that lies outside UGA and tribal reservation boundaries.*

## Land Use

Land use in Thurston County forms a distinct pattern. The most highly urban areas are located among the three north county cities of Olympia, Lacey, and Tumwater. Surrounding this urban core is a suburban area composed of moderate-density residential and commercial uses, some light industrial uses, and warehousing activities. This suburban belt gradually turns into an area characterized by low-density rural land uses such as farming, low-density residential developments, small towns, and commercial timberlands.

Watersheds or basins that have less than 10 percent urban or built land cover are generally assumed to have high water quality. The watersheds of Henderson Inlet, Budd/Deschutes, Nisqually River, and Eld Inlet all have greater than 10 percent developed land cover. The Chehalis and Black River watersheds are approaching this threshold.

## Economy

The 2008–2009 economic recession slowed job growth in Thurston County. In 2010, total employment throughout Thurston County was 129,289 jobs, down from 136,087 in 2008. In 2010, private-sector non-farm employment represented nearly 70 percent of total jobs in the county. The public sector composed 29 percent of total employment, and business owners made up another nearly 21 percent. Farm employment constituted about 1 percent of jobs in Thurston County. In 2011, Thurston County had an unemployment rate of 8.3 percent, below the state rate of 9.2 percent.

The largest components of public and private non-farm employment were the state government (19% of jobs), retail trade (11%), health care and social assistance (11%), and local government (9%). Most private firms in Thurston County are small: nearly two-thirds (66%) of companies have four or fewer employees while 90 percent of businesses have fewer than 20 employees. While they make up a large share of companies, firms with fewer than 20 employees represent less than 22 percent of total employment in the county. In contrast, less than 2 percent of firms have 100 or more employees, but they represent 51 percent of total employment.

# Public Participation Process

This Hazardous Waste Plan is Thurston County's third such plan, and it updates previous plans adopted in 1998 and 1991. Washington State Department of Ecology encourages local governments to update their hazardous waste plans to reflect local conditions and needs. By 2008, it had become clear that enough changes had occurred in Thurston County's hazardous waste system, along with corresponding adjustments in programs, that an updated plan was needed.

Updating the plan allows participating jurisdictions, citizens, partnering organizations, and businesses the opportunity to provide input to increase the quality and responsiveness of the County's program. The update process helps ensure that services meet changing local conditions, needs, and priorities.

The process for the 2014 update began in 2008 with staff of the Thurston County Public Health and Social Services Department consulting with the Thurston County Solid Waste Advisory Committee and then meeting with each jurisdiction to confirm its interest to continue participating as a partner in a joint hazardous waste plan. Appendix 2 presents agreements by local cities to participate in the update process. Appendix 3 presents documentation of participation by the Thurston County Solid Waste Advisory Committee.

The County carried out a stakeholder process to obtain input from all jurisdictions and organizations that the Hazardous Waste Program has partnered with as well as from the general public. The County formed an eight-member stakeholder committee (see Appendix 4 for links to committee meeting minutes and documents) that participated in seven meetings open from May to December 2008 to identify what services were working well and what services needed improvement. Stakeholder meetings were open to the public.

The public was invited to participate in this stakeholder process using the following methods:

- Invitations to participate in the stakeholder committee were sent to organizations and individuals the County had previously partnered with on hazardous waste:
  - Town of Bucoda, Cities of Lacey, Olympia, Rainier, Tenino, Tumwater, Yelm.
  - Confederated Tribes of the Chehalis Reservation and the Nisqually Indian Tribe.
  - Local organizations including the LOTT Clean Water Alliance, Olympic Region Clean Air Agency (ORCAA), Thurston Conservation District, and The Evergreen State College.
  - State agencies and entities including the Department of Ecology, Department of Health, and Washington State University.
  - Local school districts, nonprofit organizations, small businesses, and interested citizens.
- The general public was notified of and invited to participate in the planning process through a notice published in *The Olympian* newspaper in May 2008.
- A County webpage invited the public to attend stakeholder meetings or provide input to County staff members. The webpage located at http://www.co.thurston.wa.us/health/ehhw/hwPlan/index.html presented:
  - The schedule of stakeholder meetings.
  - Methods for providing input to County staff members by email, phone, or postal mail.
  - All meeting agendas, presentations, and minutes. See Appendix 4 for links to meeting agendas and minutes.

In 2009, County staff members incorporated recommendations from the stakeholder meetings into an initial draft document updating the Hazardous Waste Management Plan. Due to staff capacity limitations, completion of the update process was delayed until 2013. In 2013, the County engaged Cascadia Consulting Group, assisted by Special Waste Associates, to help complete the plan by updating background information and the analysis of current conditions, identifying additional potential services and funding sources, and ensuring the updated document met the Department of Ecology's new requirements for hazardous waste management plans.

After completing the draft of the 2014 Plan, the County completed the public involvement process in the following steps:

- In May 2013, submitted the draft 2013 Plan to:
  - The Thurston County Solid Waste Advisory Committee (SWAC), which represents participating cities, to provide comments and input.
  - The Department of Ecology in May 2013 for informal review.
- After making revisions responding to comments from the SWAC and Department of Ecology, conducted a 21-day (September 6–27, 2013) public comment period on the Plan and SEPA review determining non-significance. Notices regarding the comment periods on the Plan and SEPA determination were distributed to federal, state, and regional agencies; tribal governments; other Thurston County departments; local cities and towns; adjacent counties; as well as local libraries, community organizations, and newspapers. A notice was also published on the County's website. The Plan was available at three local libraries, the County Courthouse, and PHSS Department office as well as on the County's website.
- Summarized and addressed comments from the public. (The comment responsiveness summary is presented in Appendix 5.)
- Submitted the Plan to the Thurston County Board of Health for formal adoption; the Board of Health issued the final plan to each city of adoption.
- Sent the final plan to Ecology for final approval.

Various other County and State plans were considered as this plan was drafted. These plans include the following:

- Thurston County Solid Waste, *Thurston County Waste Composition Study 2008–2009*. Thurston County: Green Solutions, December 2009. http://www.co.thurston.wa.us/solidwaste/regulations/docs/ThurstonCountyWasteComp-08-09.pdf.
- Washington State Department of Ecology. *Reducing Toxic Threats Statewide Household Survey*. Olympia: Applied Research Northwest, 2007. http://www.ecy.wa.gov/biblio/0704013.html.
- Thurston County Public Health and Social Services Department. *On-Site Sewage System Management Plan*. Thurston County: January 2008. http://www.co.thurston.wa.us/health/ehadm/oss_imp.html.
- Thurston County Public Health and Social Services Department. *1998 Hazardous Waste Management Plan.* Thurston County: July 1998. http://www.co.thurston.wa.us/health/ehhw/hwplan/pdfs/Haswastpln1998.pdf.
- Washington State Department of Ecology. *Beyond Waste*. 2004. https://fortress.wa.gov/ecy/publications/publications/0407025.pdf.
- Washington State Department of Ecology. *Beyond Waste Plan 2009 Update*. Publication # 09-07-026, October 2009. http://www.ecy.wa.gov/beyondwaste/navSection.html.
- Washington State Department of Ecology. *Guidelines for developing and updating local hazardous waste plans*. Waste 2 Resources Program Publication ##10-07-006, 2010. https://fortress.wa.gov/ecy/publications/summarypages/1007006.html.

- Thurston County Solid Waste. *Thurston County Solid Waste Management Plan*. Thurston County: Maul Foster & Alongi, 2009. http://www.co.thurston.wa.us/solidwaste/regulations/SWMP.htm.
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- Department of Ecology. *2013-15 Strategic Plan*. September 2012. https://fortress.wa.gov/ecy/publications/SummaryPages/1201014.html.
- Washington State Department of Health. *Wellhead Protection Program Guidance Document*. June 2010. http://www.doh.wa.gov/portals/1/Documents/pubs/331-018.pdf.
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# Chapter B. Analysis of Current Conditions

## Contents



## Tables and Figures

This chapter provides information on the current quantities, types, and management of hazardous waste generated by households and businesses in Thurston County. It also describes the County's current program services on hazardous waste collection, public education, and technical assistance and identifies opportunities and constraints for improving those services.

# Household Hazardous Waste

Household hazardous waste (HHW) is waste that has hazardous characteristics or would otherwise be a listed hazardous waste except that it is generated (or produced) in a home, rather than a business. Hazardous characteristics include toxicity, ignitability, corrosiveness, and reactivity. Common household activities such as home repair, automotive maintenance, gardening, cleaning, personal care and hobbies often involve the use of hazardous household products or substances. The Washington State Department of Ecology provides a list of typical hazardous household substances, shown in Appendix 9.

In addition to typical HHW, the Hazardous Waste Program addresses substances that are not typically defined as hazardous waste but nonetheless raise concerns because they may:

- Harm human health or the environment during use (not just disposal).
- Contribute to chronic health conditions over time.
- Contribute to regional environmental problems.
- Be difficult to dispose of or recycle, or lack sufficient research about their safety.

Products such as fluorescent lamps, pharmaceuticals, batteries, and electronics that raise disposal concerns have broadened what is considered household hazardous waste.

The County is concerned with reducing the immediate and long-term human health and environmental impacts of products during their use and storage as well as when they become waste. This concern is embedded in the work described in this document, whether the terms used to describe materials are "wastes," "products," "substances," "chemicals," "hazardous," "moderate risk," "dangerous," "toxic," "special" or "of concern."

This section describes Thurston County's current household hazardous waste conditions including:

- Estimated quantities produced.
- Current HHW management methods.
- Opportunities and constraints for improving HHW management.
- Opportunities and constraints for improving household and public education.

The County's **guiding principles and goals** for hazardous waste management, are presented in **Chapter F (Program Philosophy)** of this Plan.

The County's **current and proposed programs** for HHW collection and for household and public education are described in **Chapter G (Program Services)** and **Chapter I (Implementation Plan)**.

# Quantity of Household Hazardous Waste Generated

Precise figures are not available for the quantity of HHW generated and how that waste is managed. Instead, this Plan presents estimates for 2009, the most recent year for which data is available on the quantity of HHW properly disposed versus improperly disposed of in municipal solid waste.

Based on available data, this Plan estimates that approximately **3.5 million pounds of HHW were generated in 2009**, of which approximately:

- **32 percent was properly disposed of through HazoHouse, the WasteMobile, and the used oil collection network.**
- **Between 9 and 48 percent was improperly disposed of in the landfill as municipal solid waste.**
- **Between 21 and 60 percent remains unaccounted for.**

Determining the precise amount of household hazardous waste generated in Thurston County each year is problematic due to a lack of reliable data on the following quantities:

- Hazardous products sold, used, or disposed of each year.
- Hazardous products currently stored in home stockpiles.
- Improperly disposed hazardous waste.

Calculation details are provided in the following text boxes.

### How much HHW is generated?

According to the Department of Ecology's 2004 *Beyond Waste Plan*, HHW is estimated to compose approximately 1 percent of the total quantity of municipal solid waste generated.[1] The term "waste" indicates a product that is no longer used; in this context, it does not refer to household hazardous materials that are stored or are in use. In 2009 (the most recent year for which solid waste composition data are available), approximately 177,000 tons or 353 million pounds of municipal solid waste was disposed in Thurston County. Applying the 1 percent figure yields an estimate that Thurston County generated approximately 1,766 tons, or 3.5 million pounds, of HHW in 2009. This estimate translates to approximately 14 pounds per resident in 2009.[2]

[1] Summary of the *Washington State Hazardous Waste Management Plan and Solid Waste Management Plan: Final Plan*, Washington State Department of Ecology, Publication Number 04-07-022, November 2004, Page 19, http://www.ecy.wa.gov/pubs/0407022.pdf.

[2] Population data from Thurston Regional Planning Council, *The* Profile 2010, page II-12, Table II-2.

### How much HHW is disposed of properly?

In 2009, Thurston County's HazoHouse, a fixed hazardous waste collection facility, collected approximately 773,000 pounds of materials from residents. WasteMobile collection events collected another 46,000 pounds. Through the public and private used oil collection sites (excluding HazoHouse and WasteMobile) in Thurston County, another 286,000 pounds of used oil were collected for recycling or proper disposal. Together, HazoHouse, the WasteMobile, and the used oil collection site collected more than 1.1 million pounds of HHW in 2009. Applying that figure to the total HHW generation calculated above yields an estimate that 32 percent of HHW was disposed of properly. It is important to note, that these 2009 quantities include latex paint; however, in 2010 HazoHouse began directing customers to dry out latex paint and dispose of it as solid waste, although the facility continued to accept it from customers unofficially.

### How much HHW is disposed of in the landfill?

Thurston County's *Solid Waste Composition Study* from 2009 estimates that more than 300,000 pounds of "actual hazardous wastes" were disposed as solid waste from residential sources and rural drop-boxes in 2009 (see Table B-1).[3] Using a broader definition that includes all wastes in Table B-1, except animal excrement and carcasses, residents may have disposed of nearly 1,675,000 pounds of HHW. Consequently, between 8 and 47 percent of HHW may have been disposed of through the landfill, depending on the definitions used in the composition study.

### How much HHW is unaccounted for?

After subtracting the amount of waste disposed of properly and the estimated amounts disposed of in the landfill, between 21 and 60 percent of household hazardous waste remains unaccounted for—potentially being disposed of or stored improperly.

[3] Thurston County, "Solid Waste Composition Study 2009," prepared by Green Solutions, December 2009. *Table 4: Breakdown of Wood, C&D, and Special Wastes* and *Table 6: Weight of Disposed Materials*.

**Table B-1. Hazardous and Problematic Wastes in Thurston County Solid Waste Stream (2009)**

| Waste Category | Residential | | | | Commercial | | Total |
|---|---|---|---|---|---|---|---|
| | Residential Self-Haul | Rural Dropboxes | Single-family | Multifamily | Non-Residential Self-Haul | General Commercial | Total |
| **Paints and Solvents** | | | | | | | |
| **Latex Paint** | 0.02% | 0.02% | 0.10% | 0.10% | -- | 0.02% | 0.04% |
| **Oil-Based Paint** | -- | -- | -- | 0.01% | 0.01% | 0.01% | -- |
| **Solvents** | 0.10% | 0.02% | -- | 0.03% | -- | -- | 0.01% |
| **Automotive Wastes** | | | | | | | |
| **Motor Oil, Other Oils** | 0.03% | 0.10% | -- | 0.10% | -- | -- | 0.01% |
| **Oil Filters** | 0.02% | -- | 0.01% | 0.01% | -- | 0.10% | 0.04% |
| **Gasoline, Fuel Oil** | -- | -- | -- | -- | -- | -- | -- |
| **Antifreeze** | 0.03% | -- | -- | -- | -- | -- | 0.01% |
| **Other Auto Maintenance** | 0.01% | -- | -- | -- | -- | 0.01% | 0.01% |
| **Batteries, Car** | 0.01% | -- | -- | -- | -- | -- | -- |
| **Home and Garden** | | | | | | | |
| **Pesticides, Herbicides** | 0.02% | 0.02% | -- | -- | -- | -- | 0.01% |
| **Fertilizer with Pesticide. and Herbicide** | -- | -- | -- | -- | -- | -- | -- |
| **Fertilizer without Pesticide or Herbicide** | 0.10% | -- | -- | -- | -- | -- | 0.01% |
| **Other** | | | | | | | |
| **Adhesives, Glues** | 0.20% | 0.10% | 0.03% | 0.04% | 0.04% | 0.03% | 0.10% |
| **Cleaners, Corrosives** | 0.40% | -- | 0.04% | 0.10% | -- | -- | 0.10% |
| **Medical Wastes** | 0.02% | -- | 0.03% | -- | -- | 0.02% | 0.02% |
| **Household Batteries** | 0.10% | 0.10% | 0.20% | 0.10% | -- | 0.10% | 0.10% |
| **Animal Excrement** | 2.70% | 1.10% | 5.00% | 2.80% | 0.30% | 0.40% | 1.90% |
| **Animal Carcasses** | -- | -- | 0.01% | -- | -- | -- | -- |
| **Gas Cylinders** | -- | -- | -- | 0.01% | -- | 0.01% | -- |
| **Other Special Wastes** | 0.80% | -- | -- | -- | -- | -- | 0.20% |
| **Total Special Waste** | 4.50% | 1.40% | 5.40% | 3.30% | 0.40% | 0.60% | 2.50% |
| **"Actual Hazardous Waste"** | 0.35% | 0.15% | 0.04% | 0.15% | 0.02% | 0.14% | 0.15% |
| **Total MSW Disposed (tons)** | 35,650 | 3,340 | 37,390 | 7,990 | 17,610 | 74,600 | 176,580 |

*Source: Thurston County, "Solid Waste Composition Study," prepared by Green Solutions, December 2009. Table 4: Breakdown of Wood, C&D, and Special Wastes and Table 6: Weight of Disposed Materials. The report did not list which specific materials were considered "Actual Hazardous Waste."*

Pharmaceuticals and cosmetics—personal care products—also have human health and environmental impacts, although these products have not traditionally been managed as HHW. The 2009 *Solid Waste Composition Study* estimated that residents disposed of approximately 660,000 pounds of personal care products, or about 0.4% of the waste residents sent to the landfill.[4] Thurston County's program to collect pharmaceuticals in coordination with law enforcement agencies began in 2010, collecting 2,209 pounds of medicines in that year. To date, law enforcement has collected 16,042 pound of medicines.

Fluorescent lamps, which contain mercury, are another product of concern. As of 2013, Washington State law requires mercury lamps to be recycled at their end-of-life (RCW 70.275.080). The 2009 *Solid Waste Composition Study* estimated that approximately 21 percent of disposed light bulbs were either fluorescent bulbs or tubes, yielding an estimate that residents disposed of approximately 122,000 pounds of fluorescent lamps, or about 0.02% of the waste they sent to the landfill.[5] In contrast, HazoHouse collected 19,055 pounds of mercury-containing lamps in 2009. As the United States moves toward a federally mandated phase-out of inefficient incandescent bulbs starting in 2012, with a full ban going into effect in 2014, the quantity of more efficient bulbs, including fluorescent lamps is likely to increase, although other technologies such as LED lamps are beginning to replace fluorescent lamps. As a result, the quantity of fluorescent lamps disposed of is expected to increase in the near term as current and future fluorescent lamps reach their end of life. Several retail locations now accept compact fluorescent bulbs for recycling, but fluorescent tubes can be difficult for residents to dispose of—locally, they are only accepted at HazoHouse or by private vendors that typically serve businesses. A new statewide product stewardship program for fluorescent lamps—Light Cycle Washington—is in development. This program, when implemented, should provide more convenient options for households to bring their mercury-containing lights for proper management and increase collection.

## Current Household Hazardous Waste Management

To keep waste generation as low as possible, Thurston County encourages reduction and reuse of household hazardous products. To promote safe disposal for wastes that cannot be avoided, the County operates or supports five moderate risk waste collection systems for residents:

- **HazoHouse**—a permanent collection facility at the County's Waste and Recovery Center (WARC) at Hawks Prairie (northeast Thurston County).
- **WasteMobile**—County-run mobile collection events.
- **Used oil collection sites**—a system of County-operated and private collection sites for used motor oil; some locations also accept antifreeze and oil filters.
- **Medicine Return Program**—a system operated by local law enforcement agencies to collect unwanted prescription medicines safely.

[4] Thurston County, "*Solid Waste Composition Study*," prepared by Green Solutions, December 2009. Table 6: Weight of Disposed Materials.

[5] Thurston County, "*Solid Waste Composition Study*," prepared by Green Solutions, December 2009. Section F: Additional Data and Observations and Table 6: Weight of Disposed Materials.

- **Swap Shop**—an area of HazoHouse to reduce waste by promoting reuse by residents of less hazardous products such as paint or household cleaners.

In addition, residents can dispose of unwanted computers, laptops, monitors, and televisions through the **E-Cycle Washington** program, financed and managed by electronics manufacturers and overseen by the Department of Ecology. One of the collection sites for Thurston County is located at the County's WARC but is operated by Goodwill Industries.

## HazoHouse Fixed Collection Facility

In the 1980s, Thurston County opened a fixed facility—known as HazoHouse—located at the Thurston County Waste and Recovery Center (WARC) to collect HHW from county residents. In March 2011, the County upgraded to a new state-of-the art HazoHouse facility featuring improvements in worker and customer protection, spill containment, and more efficient operations. HazoHouse is the only permitted Moderate Risk Waste (MRW) facility in Thurston County.

HazoHouse accepts unwanted, outdated, or mixed household hazardous waste from residents for free from 8 a.m. to 5 p.m. on Friday through Tuesday (closed Wednesday and Thursday). Wastes that are contaminated mixtures, cannot be practically reused or recycled on-site, or are too dangerous to be safely reused, are processed, stored, and transported off-site by a licensed hazardous waste company. When possible, these wastes are refined or recycled, burned for energy or neutralized. The small amounts of remaining materials are incinerated or disposed of in hazardous waste landfills. When possible, these wastes are managed in accordance with the hazardous waste management hierarchy described in **Chapter F (Program Philosophy)**.

In 2012, 13,120 household customers used HazoHouse to dispose of 418,724 pounds of HHW. Assuming each customer represents a household, HazoHouse served approximately 13% of households in Thurston County.[6] The annual number of HazoHouse customers generally grew from 2002 to 2009, although the total quantity collected and quantity per customer varied from year to year, as shown in Table B-2. A detailed breakdown of waste by category is presented in Table B-3.

In 2010, HazoHouse began directing customers to dry out latex paint and dispose of it as solid waste, although the facility continued to accept it from customers unofficially. The change to dissuade people from bringing latex paint may account for the decrease in total participation: latex paint is often considered a "loss leader" that motivates customers to visit hazardous waste facilities. Other jurisdictions, such as Snohomish County, King County, and Metro (Oregon) have experienced a decrease in participation when they stopped accepting latex paint or when retail sites began accepting paint through a product stewardship program.[7] This change may also account for the steady decrease in

[6] Thurston Regional Planning Council, "*The Profile*, November 2012," page 1 (Statistical Profile: Thurston County) estimates 100,560 households in 2010, the most recent year for which data are available.

[7] Metro (Oregon), "Producer Responsibility Scenario Analysis," Prepared by Cascadia Consulting Group, December 2012.

pounds of HHW collected per customer from 2010 to 2012—as paint is a relatively heavy material that customers tend to bring in larger quantities. If latex paint is excluded from the calculation, total pounds collected per customer have not changed significantly since HazoHouse stopped accepting latex paint.

**Table B-2. HazoHouse Residential Customers and Total Pounds of HHW Collected**

| | Number of customers | Pounds of HHW collected | Pounds of HHW per customer |
|---|---|---|---|
| 2002 | 7,152 | 229,959 | 32 |
| 2003 | 9,279 | 694,745 | 75 |
| 2004 | 9,629 | 476,558 | 49 |
| 2005 | 9,668 | 686,253 | 71 |
| 2006 | 10,809 | 754,887 | 70 |
| 2007 | 14,810 | 838,244 | 57 |
| 2008 | 14,094 | 744,897 | 53 |
| 2009 | 16,029 | 773,141 | 48 |
| 2010 | 14,442 | 664,559 | 46 |
| 2011 | 14,491 | 535,011 | 37 |
| 2012 | 13,120 | 418,724 | 32 |

*Source: Thurston County Public Works Department and Public Health and Social Services Department.*
*Notes: Used oil is also collected through the other public and private used oil collection sites. Figures for oil collected at HazoHouse were updated using information tracked by the County's oil collection program. As a result, oil quantities in this table may differ from quantities reported in reports to the Department of Ecology.*

**Table B-3. HazoHouse HHW Collected by Category (in pounds), 2008–2012**

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| Used Oil and Oil Filters | 196,766 | 214,060 | 202,564 | 166,500 | 145,299 |
| Latex Paint | 179,424 | 156,948 | 135,191 | 104,315 | 7,555 |
| Oil-based Paint | 155,400 | 148,150 | 70,795 | 68,548 | 55,589 |
| Batteries | 74,868 | 79,251 | 57,718 | 51,621 | 32,357 |
| Antifreeze | 0 | 25,672 | 29,468 | 25,928 | 29,751 |
| Flammable Solids | 1,050 | 550 | 516 | 500 | 470 |
| Flammable Liquids | 40,600 | 46,150 | 60,946 | 43,542 | 38,381 |
| Acids | 6,850 | 5,250 | 4,255 | 5,016 | 4,219 |
| Bases | 9,842 | 9,870 | 6,723 | 6,329 | 5,605 |
| Non-regulated Material | 19,250 | 21,525 | 22,600 | 17,900 | 13,510 |
| Flammable Gases | 0 | 0 | 389 | 13,360 | 13,918 |
| Aerosols (consumer) | 11,150 | 14,250 | 15,442 | 0 | 0 |
| Paint-related Materials | 0 | 0 | 30,650 | 12,228 | 19,345 |
| Pesticides | 30,900 | 29,900 | 7,188 | 7,656 | 11,420 |
| PCBs | 0 | 0 | 0 | 1,331 | 1,421 |
| Mercury/Mercury-containing Devices | 15,567 | 19,835 | 18,820 | 7,780 | 28,904 |
| Organic Peroxides and Oxidizers | 1,680 | 1,730 | 1,294 | 2,372 | 1,251 |
| Other Waste | 1,550 | 0 | 0 | 85 | 9,729 |
| **Total** | **744,897** | **773,141** | **664,559** | **535,011** | **418,724** |

*Source: Thurston County Public Works Department and Public Health and Social Services Department*
*Notes: Used oil is also collected through the other public and private used oil collection sites. Figures for oil collected at HazoHouse were updated using information tracked by the County's oil collection program; as a result, oil quantities in this table may differ from quantities reported in reports to the Department of Ecology. Non-regulated materials include non-hazardous products such as soaps and cleaners.*

From HazoHouse, most household and business wastes are transported to other facilities for final management. From 2010 to 2012, nearly half (49%) of wastes were recycled, including oil, batteries, and mercury-containing products. HazoHouse generates revenues from the sale for recycling of certain materials: used oil, batteries, and propane cylinders. Previously, latex paint was recycled through MetroPaint in Oregon, but this material is now sent to a solid waste landfill because MetroPaint stopped accepting latex paint from outside Oregon. As a result, HazoHouse also stopped officially accepting latex paint, causing quantities to decrease.

More than one-quarter (26%) of wastes from businesses and households were used for energy recovery. Approximately 15 percent of waste was stabilized and disposed of in the solid waste landfill. Equal shares of waste were disposed of in a hazardous waste landfill (4%) as were treated on-site and legally disposed of in the wastewater system (4%).

Silver fixer, generated by businesses, is an unusual waste stream that is treated at HazoHouse. The fixer is passed through canisters to remove and store silver, and the treated liquid is discharged to the wastewater system. The canisters are sent to a facility that recovers the silver and repays a portion of its value to the County, offsetting disposal costs. Table B-4 shows the share of HazoHouse-collected waste according to final management method for 2010–2012.

**Table B-4. HazoHouse Ultimate Waste Disposal Methods (in percent of total weight)**

| Management Method | Average 2010–2012 |
|---|---|
| Recycling | 49% |
| Energy Recovery | 26% |
| Stabilization and Solid Waste Landfill | 15% |
| Hazardous Waste Landfill | 4% |
| Treatment and Wastewater System | 4% |
| Other Disposal Method | 2% |
| **Total** | **100%** |

*Source: Thurston County Public Works Department and Public Health and Social Services Department*
*Note: Includes waste collected from both residents and businesses allowed to use HazoHouse (conditionally exempt small quantity generators).*

In 2012, HazoHouse served 13,120 customers and collected 418,724 pounds of household hazardous waste. That same year WasteMobile mobile collection events collected another 10,913 pounds of waste from 250 customers. Together, Thurston County's HHW collection program served 13,370 household customers and received 429,637 pounds—more than 140 tons—of HHW last year.

## WasteMobile Mobile Collection Events

Originally implemented based on public recommendations, the WasteMobile began in 2002 as a two-year pilot project, but it has since become an ongoing program service. The WasteMobile holds one or two events each year for county residents to supplement HHW collection at HazoHouse, intended to serve rural residents who live relatively far from the fixed facility. Collection events are posted on the WasteMobile website so residents may plan in advance to drop off their hazardous household products.

The Wastemobile accounts for a relatively small share of HHW customers and quantities collected: in 2011, the WasteMobile accounted for 1 percent of all HHW customers, while 99 percent of customers used HazoHouse. The number of event-days has varied from two to six each year, depending on funding available.

**Table B-5. WasteMobile Collection Quantities and Customers, 2002–2012**

| | Number of event-days | Number of customers | Total pounds of HHW collected | Average pounds of HHW per customer |
|---|---|---|---|---|
| 2002 | 4.5 | 635 | 26,200 | 41 |
| 2003 | 4 | 627 | 33,200 | 53 |
| 2004 | 5 | 305 | 21,400 | 70 |
| 2005 | 6 | 945 | 45,800 | 48 |
| 2006 | 4 | 1,190 | 70,800 | 59 |
| 2007 | 4 | 1,390 | 75,780 | 55 |
| 2008 | 4 | 594 | 61,100 | 103 |
| 2009 | 3 | 450 | 45,580 | 101 |
| 2010 | 2 | 112 | 7,900 | 71 |
| 2011 | 3 | 261 | 13,180 | 50 |
| 2012 | 3 | 250 | 9,900 | 40 |

*Source: Thurston County Public Works Department and Public Health and Social Services Department.*

## Used Oil Collection Sites

Used motor oil is collected for recycling at 30 different locations (22 private businesses, 3 County-owned sites, and 4 County-operated sites at private businesses) throughout the county Table B-7). All used oil collected through County-owned sites is recycled, as is oil collected from County-operated tanks at private businesses. Oil filters can be recycled at the Rainier and Rochester transfer stations or the WARC.

**Table B-6. Used Oil Collected at Recycling Sites, 2008–2012**

| Type of Site | Disposal Method | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| **County-owned sites** | Re-refined | 250,342 | 254,893 | 252,673 | 215,451 | 185,481 |
| **County-operated private sites** | Re-refined | 52,836 | 44,992 | 38,702 | 37,555 | 42,735 |
| **Private sites** | Re-refined | 145,743 | 160,322 | 153,921 | 145,817 | 144,189 |
| **Private sites** | Energy Recovery | 28,875 | 28,949 | 33,193 | 32,458 | 17,856 |
| **Total** | | **477,796** | **489,156** | **478,489** | **431,281** | **390,261** |

*Source: Thurston County Public Works Department and Public Health and Social Services Department.*

**Table B-7. Used Oil Collection Sites Serving Thurston County Residents**

| Location | Thurston County Location |
|---|---|
| **County-owned Sites** | |
| **Thurston County HazoHouse** | Lacey |
| **Thurston County WasteMobile** | Various cities (mobile collection) |
| **Rainier Drop Box** | Rainier |
| **Rochester Drop Box** | Rochester |
| **County-operated Private Sites** | |
| **Parts Plus** | Olympia |

| Location | Thurston County Location |
|---|---|
| **Swantown Marina (north and south site)** | Olympia |
| **Terry Anderson Trucking** | Grand Mound |
| **Valley Repair** | Tenino |
| **Privately Operated Sites** | |
| **Auto Zone—Pacific** | Lacey |
| **Cut Rate Auto Parts—College** | Lacey |
| **Jiffy Lube—4102 Pacific** | Lacey |
| **Jiffy Lube—Marvin** | Lacey |
| **Jiffy Lube—Pacific** | Lacey |
| **O'Reilly Auto Supply—Martin** | Lacey |
| **O'Reilly Auto Supply—Whitman** | Lacey |
| **Auto Zone—Harrison** | Olympia |
| **Mike's Plum Street Express Lube** | Olympia |
| **Jerry's Automotive** | Olympia |
| **Jiffy Lube—Black Lake Blvd.** | Olympia |
| **Jiffy Lube—Harrison** | Olympia |
| **Jiffy Lube—State** | Olympia |
| **O'Reilly Auto Supply—Cooper Point Road** | Olympia |
| **Auto Zone—Trosper** | Tumwater |
| **Cut Rate Auto Parts—Capitol Blvd.** | Tumwater |
| **Jiffy Lube—5101 Capitol Blvd.** | Tumwater |
| **O'Reilly Auto Supply—Capitol Blvd.** | Tumwater |
| **Auto Zone—Yelm Highway** | Yelm |
| **Jiffy Lube—Yelm Avenue** | Yelm |
| **O'Reilly Auto Supply—Algiers Road** | Yelm |
| **Wal-Mart Tire & Lube** | Yelm |

*Source: Thurston County Public Works Department and Public Health and Social Services Department*.

## Medicine Return Program

Starting in 2010, Thurston County residents were provided the opportunity to dispose of unwanted prescription medicines safely. In cooperation with local law enforcement agencies, the County arranged for secure drop-off locations for medicines, including those regulated as controlled substances, at law enforcement and government offices. Many sites operated 24 hours a day and seven days a week. The Medicine Return Program is an innovative example of cross-agency cooperation to solve a multifaceted problem to ensure controlled substances are disposed of safely.

This cross-agency partnership collected 2,159 pounds of medications from Thurston County in 2010; 3,457 pounds in 2011; and 5,310 pounds in 2012. Separately, the U.S. Drug Enforcement Administration collected 453 pounds of medications during seven events in Thurston County in 2010–2012. In addition, the Medicine Return Program also facilitated the collection and disposal of pharmaceuticals from Mason County in 2010 (60 pounds) and 2011 (240 pounds) and from the City of Centralia in Lewis County in

2011 (249 pounds). Table B-8 presents the pounds of medicine collected by the partnership each year from 2010 to 2013.

**Table B-8. Pounds of Medicine Collected in Thurston County (2010–2012)**

| | 2010 | 2011 | 2012 |
|---|---|---|---|
| **Thurston Sheriff's Office** | 1,044 | 1,094 | 1,382 |
| **Lacey Police Department** | 642 | 1,611 | 2,309 |
| **Rainier City Hall** | 0 | 15 | 36 |
| **Tenino Police Department** | 33 | 67 | 132 |
| **Tumwater Police Department** | 391 | 443 | 654 |
| **Yelm Police Department** | 50 | 227 | 201 |
| **Other (direct from local pharmacy)** | 0 | 0 | 598 |
| **Drug Enforcement Administration** | 50 | 147 | 257 |
| **Total from Thurston County** | **2,209** | **3,603** | **5,567** |

*Source: Thurston County Public Works Department and Public Health and Social Services Department*
*Note: Thurston County's Medicine Return Program also facilitated the collection and disposal of pharmaceuticals from Mason County in 2010 (60 pounds) and 2011 (240 pounds) and from the City of Centralia in 2011 (249 pounds). Figures may not sum to totals due to rounding.*

## Swap Shop

The Swap Shop at HazoHouse was created in 1999, based in large part on the number of reusable products being disposed of at HazoHouse; however, it has been less active in recent years. In the past, HazoHouse patrons have had the opportunity to browse through the Swap Shop, looking for free products such as paint or household cleaners. Aerosols, pesticides, methamphetamine ingredients, and other dangerous wastes were not reused through the Swap Shop. The Swap Shop helped the County reduce the hazardous waste stream, save disposal costs, reclaim useable products, and potentially reduce the volume of similar products being purchased by residents. In addition, the Swap Shop provided an opportunity to distribute an array of educational materials published by the County, on topics ranging from less-toxic alternatives for household cleaning to disposal options for latex paints.

## Household and Public Education

Thurston County's Public Health and Social Services (PHSS) Department has a team dedicated to educating the public about hazardous materials issues. Educational programs are designed to increase awareness and to reduce use, misuse, improper storage and disposal, and risks to human health and the environment related to hazardous products. Thurston County prioritizes specific topics, audiences, and education methods according to hazards, community needs, and outreach effectiveness, so specific campaign elements change over time.

In 2012, the public education program focused on:

- School presentations about the hazards of common household and personal care products.
- Presentations and booths at community events to reach families with young children.
- Publications and communication strategies about toxics reduction, safer handling, and proper disposal.
- On-site assessments in homes and childcare facilities that included a toxics reduction component.
- Publications and retail partnerships to promote Integrated Pest Management techniques and paint waste reduction to residents.

In previous years, campaigns addressed proper disposal of waste when residents are moving, arsenic in pressure-treated wood, mercury awareness and thermometer exchanges, keeping toxic chemicals out of on-site septic systems, and reducing use of and exposure to toxic chemicals.

To document successes and identify opportunities to improve, the County regularly evaluates program activities, documenting results in internal reports and reports to the Department of Ecology to fulfill Coordinated Prevention Grant requirements.

The remainder of this section provides examples of topics, audiences, and methods that Thurston County has addressed recently:

- School presentations
- Outreach to households and families
- Common Sense Gardening
- Paint waste reduction education
- Used oil recycling
- The County's Environmental Health Information Hotline

## School Presentations

Current school programs on toxics reduction education and outreach include "Hazards on the Homefront" and "Get Out of My Hair: Toxins in Personal Care." This ongoing program aims to reduce the purchase and use of hazardous products by raising awareness of the health risks these products pose. Since 2006, Thurston County has presented these 50-minute programs to middle and high school students. The program is made possible through Thurston County's ongoing education partnership with local school districts: North Thurston Public Schools, Olympia School District, Rainier School District, and Tumwater School District.

## Outreach to Households and Families

The County also conducts presentations and hosts booths at community events to reach families with young children and other targeted audiences. Publications, articles, and other communication strategies help alert the community to the need for toxics reduction and safer handling and disposal options.

Healthy Homes is a program that began in 2012 to provide in-home and in-childcare environmental assessments. The recommendations provided during the site visits include a main component on toxics reduction.

## Common Sense Gardening

Through its Common Sense Gardening program, the County seeks to educate residents about potential human health and environmental impacts of pesticides and other lawn and garden products. Historically, the program has reached residents in person, through informational materials (such as brochures and a website) and by educating retail staff to recommend less-toxic gardening products and methods. Previously, the program organized Pesticide-Free Model Neighborhoods and "Garden Rhapsody" tours to build a community of environmentally friendly gardeners, and it developed publications that are still in use. Results of surveys conducted in 2003 indicated that the Common Sense Gardening program is very effective in inspiring change in residents who read the guides, participate in Garden Tours, or attend workshops. Specifically, the survey found that 85% of 100 program participants surveyed, and 50% of randomly selected households surveyed changed their lawn or gardening practices as a result of reading a Common Sense Gardening guide.

The program currently holds workshops for residents, operates booths at community events, trains garden center staff to guide shoppers to less-toxic products, and distributes Common Sense Gardening guides and Integrated Pest Management (IPM) Prescriptions fact sheets to at least 16 retail locations throughout the county. In 2013, Thurston County will host an organic landcare certification for landscapers and land managers, in partnership with Oregon Tilth, Seattle Tilth, and Washington State University (WSU) Thurston County Extension.

The County regularly partners with other organizations to carry the pesticide reduction message into the community. Partners include the WSU Thurston County Extension Master Gardeners Program, WSU Native Plant Salvage Project, city and county water resources programs, Thurston County Noxious Weed Control, LOTT Clean Water Alliance, Thurston Conservation District, schools, and homeowner associations. Thurston County also participates in the multi-agency "Grow Smart, Grow Safe" campaign with King County in Washington and Metro in Oregon. The County's Solid Waste Program also supports composting education and organic waste reduction efforts.

## Paint Waste Reduction

While the County has stopped conducting paint swaps where residents can drop off and pick up usable latex paint, education and outreach continues regarding proper disposal of paint. This education primarily occurs in paint stores, and fact sheets regarding paint use planning and disposal options for paint are also available online. The County continues to collect oil-based paints, stains, varnishes, and thinners at HazoHouse and WasteMobile events.

## Used Oil Recycling Campaign and Youth Used Oil Recycling

Historically, a media campaign has publicized the used oil recycling sites available throughout Thurston County, using newspaper advertisements in addition to point-of-purchase brochures available at locations that sell motor oil. Education focuses primarily on reaching new drivers.

In 2002–2003, the County conducted social marketing research on new drivers and used motor oil recycling. This research resulted in the popular, student-selected "Kiss Me, I Recycle My Used Motor Oil" posters and bumper stickers. Since 2009, the youth-focused used oil campaign has conducted presentations in driver's education classrooms throughout Thurston County. The presentation is a 50-minute, interactive presentation that encourages students to think about where their oil resources come from as well as where they end up, and it also promotes the benefits of recycling used oil and purchasing re-refined oil. Students receive a "Kiss Me, I Recycle My Used Motor Oil" bumper sticker and a rebate for a free used oil recycling drain pan. They also receive the current list of locations where oil can be recycled in Thurston County. This program reaches approximately 200 students each year.

## Environmental Health Information Hotline

In 2002, Thurston County began operating an information hotline for residents to provide information regarding environmental health, including hazardous materials prevention, use, storage, cleanup, and disposal. PHSS staff members answer questions during normal business hours on weekdays. In 2012, the hotline received approximately 155 calls from residents.

# Opportunities and Constraints for Improving Household Hazardous Waste Management

## Gaps in Services (Household Hazardous Waste Collection)

County-provided collection services for HHW appear to be serving residents of Olympia, Lacey, and Tumwater adequately, while residents of other parts of the county may lack convenient access to HHW collection services. Together, HazoHouse and the WasteMobile served 13,370 residential customers in 2012, or an estimated 13 percent of Thurston County households. Based on surveys of HazoHouse customers in 2007–2009 and the assumption that WasteMobile customers live in the area where each event is held, approximately 87 percent of residential HHW collection customers lived in Olympia, Lacey, and Tumwater. In contrast, these cities account for approximately 45 percent of all Thurston County households.[8] Additional collection services for the southern part of Thurston County would improve hazardous waste management, if funding becomes available.

[8] Household by jurisdiction data for 2010 from Thurston Regional Planning Council, *The Profile*, 2012, page II-33, Table II-20.

This list below identifies gaps in Thurston County's HHW collection services. Options for addressing these gaps are described in **Chapter G (Program Services)** and **Chapter I (Implementation Plan)**.

- The following groups may not have equitable, convenient access to hazardous waste collection:
  - Residents in the southern part of the county.
  - Residents who do not speak English or Spanish.
  - Residents who do not drive or have limited mobility.
- Additional promotion of collection opportunities to new customers may be required because approximately three-quarters of HazoHouse customers have used the facility before.
- The most recent countywide survey assessing resident needs was conducted in 1993. The most recent survey of HazoHouse customers was conducted in 2009. An updated study or survey of both Thurston County residents in general and HazoHouse customers specifically would help the County identify unmet needs and prioritize future collection services.
- The County's emergency plan currently lacks detailed, written procedures for hazardous waste management during and after disasters that disrupt regular collection activities and require emergency collection of increased quantities of household hazardous waste. Written procedures could be developed drawing on the County's experience responding to the Chehalis River flooding in 2007 and earlier floods in the Nisqually River Valley.
- The County may need to address collection of emerging chemicals of concern and personal care products such as fragrances and cosmetics. Reducing use of these products is currently addressed through education and outreach efforts, but these materials may need additional regulation or other attention within the solid waste collection and wastewater systems.
- The medicine collection program is not countywide and may not be sustainable due to lack of dedicated funding.
- The County no longer has a method for latex paint recycling or reuse. An estimated 10 percent of paint sold becomes unwanted leftover paint that needs to be properly managed. Public demand for collection of particular wastes, such as latex paint, at transfer stations may not currently be met.[9]
- HazoHouse collections have decreased over the last two years. It is unclear whether this decline is related to the weak economy, lack of consistent advertising, end of latex paint collection, other factors, or a combination. It may be helpful to assess this decline to determine if a gap in communications or services is contributing to the decrease.
- There is a lack of convenient, countywide collection sites for oil filters and antifreeze.
- The County lacks information about the target audiences and the quantity of oil and filters generated—including the number of do-it-yourself mechanics and their current awareness, behaviors, barriers, and motivations regarding proper automotive waste disposal. If fewer people are changing their own oil, the amount of used oil collected may decrease because more people are using professional services, rather than because they are improperly disposing of used oil.

[9] *2012 Solid Waste Group Draft White Paper*, Sustainable Thurston http://www.trpc.org/regionalplanning/sustainability/Documents/Solid_Waste/Draft_Solid_Waste_White_Paper_web.pdf

- There is a need for identifying and implementing strategies to increase the percentage of collected oil that is re-refined.

## Gaps in Services (Household and Public Education)

Thurston County has a strong public education program that addresses important hazardous waste topics. The County also coordinates with other relevant organizations through an environmental education technical advisory committee facilitated by County staff members. The list below identifies gaps in Thurston County's household and public education programs. Options for addressing these gaps are described in **Chapter G (Program Services)** and in **Chapter I** (**Implementation Plan)**.

- Need for more outreach:
  - To non-English speakers.
  - To audiences not already aware of health and environmental impacts of hazardous materials.
- Need for more information to prioritize selection of campaign audiences, topics, and strategies. For example, information regarding purchasing behaviors, disposal needs and behaviors, and obstacles and motivations regarding prevention and proper disposal, particularly with regard to unreached populations.
- Need for more evaluations that measure the effectiveness of public outreach and education programs, both regarding changes in behaviors and in achieving environmental outcomes.
- Need to continue coordinating hazardous waste education with education on related topics.
- Lack of resources to research, conduct, and evaluate campaigns.

# Conditionally Exempt Small Quantity Generators

Businesses that generate (or produce) hazardous waste are regulated under federal, state, and local laws to ensure safe use, storage, handling, and disposal. Regulatory activities are primarily shared between local counties, which regulate conditionally exempt small quantity generators (CESQG), and the State, which regulates business that generate larger quantities of hazardous waste or small quantity generators that do not satisfy the conditions for exemption as CESQGs.

Businesses that qualify as CESQGs are commonly involved in auto and equipment maintenance, pesticide application, medical and dental services, dry cleaning, manufacturing, construction, commercial printing and photography, and facility and grounds maintenance. Schools and government entities involved in road maintenance, facility and grounds maintenance, and equipment repair may also qualify as CEQGS.

In 1992, Thurston County adopted a Nonpoint Source Pollution Ordinance (Article VI of the Sanitary Code) to establish local standards for storage, disposal, and spills of hazardous materials from CESQG businesses. The County's Public Health and Social Services (PHSS) Department enforces the ordinance, provides technical assistance to CESQG businesses, and coordinates with the Department of Ecology on enforcement and assistance for businesses that generate larger quantities of hazardous waste.

This section describes Thurston County's current CESQG hazardous waste conditions including:

- Types of CESQG Businesses and Wastes Generated
- Quantity of Hazardous Waste Generated by Small Businesses
- CESQG Waste Management and Recycling/Disposal
- Targeted Wastes and Sources for Technical Assistance
- Opportunities and Constraints for Improving CESQG Waste Management

### What is a Conditionally Exempt Small Quantity Generator (CESQG) Business?

Businesses are categorized according to how much hazardous and acutely hazardous waste they generate each month and how much they store on-site. A business is considered a conditionally exempt small quantity generator (CESQG) if it meets three requirements:

- Generates less than 220 pounds of hazardous waste in one month or batch.
- Generates less than 2.2 pounds of acute hazardous waste per month or batch.
- Stores less than 2,200 pounds of hazardous waste at any one time.

The amount of hazardous chemicals used, type of product manufactured, air emissions, or number of people employed are not considered in this definition. Businesses that exceed these limits may be classified as medium quantity generators (MQG) or large quantity generators (LQG).

# Types of CESQG Businesses and Wastes Generated

While CESQG businesses use many of the same types of products as households—such as paints, batteries, oil and other automotive fluids, solvents, and cleaners—they often use substances in higher concentrations and generate larger quantities of more types of waste. Other CESQG wastes have no counterparts in household hazardous waste (HHW), such as solvent still bottoms, heavy metal dust and sludges, and laboratory wastes. In general, CESQGs tend to generate hazardous wastes that have become contaminated in their use (such as a solvent used for cleaning engine blocks that becomes contaminated with grease, oils, dirt, and metal shards).

While some businesses generate hazardous waste regularly (such as dry cleaners, dentists, and auto body shops), others generate hazardous waste intermittently (such as business offices and schools). Table B-9 lists the different types of CESQG wastes in Thurston County and the businesses that produce them.

**Table B-9 Industrial Classification of Conditionally Exempt Small Quantity Generators in Thurston County: Targeted Wastes and Sources**

| Type of Business | Types of Hazardous Waste |
|---|---|
| **Pesticide Users and Application Services—**golf courses, parks, arboretums, pest exterminators, landscapers, tree and lawn services | Wash and rinse solutions, oils, solvents, waste pesticides, batteries, fertilizers |
| **Wood Preserving—**millwork, lumber, wood preserving | Wood preservatives, oil, solvents, batteries |
| **Laundries—**dry cleaners, carpet cleaners, industrial cleaners | Perchloroethylene, caustic soaps |
| **Other Services—**funeral services, cleaning and maintenance services, painters, garbage collection, miscellaneous | Formaldehyde, ammonia, oil, solvents, paints |
| **Photography—**photo-finishing labs, blueprint and photocopying services | Film-developing chemicals, inks |
| **Vehicle Maintenance—**service stations, engine and transmission repair, body and radiator shops, battery sales, trucking | Solvents, metal sludge, caustics, batteries, paint waste |
| **Equipment Repair—**all repair services unrelated to vehicle maintenance | Solvents, oils |
| **Metal Manufacturing—**jewelry manufacturing, engravers, fabricated metal products | Acids, solvents, oil, other chemicals |
| **Construction—**contractors, insulation companies, floor covering, plumbing | Oil, solvents, paints, batteries |
| **Motor Freight Terminals—**terminals for maintenance facilities | Batteries, solvents, oil |
| **Furniture/Wood Manufacturing and Refinishing—**Furniture manufacturers, wood preservers, refinishers | Oil, solvents, stripping compounds, wood preservatives |
| **Printing and Ceramics—**Print shops, advertising services, paper products | Photographic chemicals, inks |

| Type of Business | Types of Hazardous Waste |
|---|---|
| **Cleaning Agents and Cosmetic Manufacturing—**soap manufacturing and cleaning services | Caustic solutions, soaps |
| **Other Manufacturing—**plastic processes, glass manufacturing, abrasive products, manufacturing unrelated to other categories | Oil, solvents, inks, paints |
| **Laboratories—**medical and commercial Labs | Caustic solutions, solvents, and mixed chemical wastes |
| **Educational and Vocational Shops—**vocational schools, high schools, colleges | Oil, solvents, cleaning materials, paints |
| **Wholesale and Retail—**businesses involved in wholesale distribution, retail stores | Oil, solvents, batteries |
| **Amusement and Recreation—**marinas, swimming pools | Gasoline, wood stain and preservatives, cleaning materials, paints, batteries, oxidizers, corrosives, acids, bases. |

In Thurston County, 51 businesses have registered with the Department of Ecology as CESQG businesses, in addition to 23 medium and large quantity generators. For planning purposes, the County estimates that at least 2,000 business and government operations in Thurston County are highly likely to use hazardous substances or generate hazardous waste. Businesses that are likely to qualify as CESQGs are typically found in the following industries:

- Building material and garden equipment suppliers and dealers.
- Construction.
- Dry cleaning and laundry services (except coin-operated); linen and uniform supply.
- Elementary and secondary schools; colleges, universities, and professional schools; technical and trade schools; fine arts schools.
- Funeral homes and funeral services; cemeteries and crematories.
- Gasoline stations.
- Hair, nail, and skin care services.
- Janitorial services, carpet and upholstery cleaning services.
- Landscaping services, golf courses and country clubs; exterminating and pest control services.
- Manufacturing (other than food and beverages).
- Motor vehicle and parts dealers.
- Offices of physicians; offices of dentists; medical and diagnostic laboratories; testing laboratories.
- Other equipment repair: electronic and precision equipment repair and maintenance; commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance; home and garden equipment and appliance repair and maintenance.
- Other repair: re-upholstery and furniture repair; footwear and leather goods repair; other personal and household goods repair and maintenance.
- Photographic services, photofinishing.
- Printing and related support activities.

- Textile mills.
- Transportation (air, truck, transit, sightseeing, support activities).
- Transportation-related: marinas; recreational vehicle (RV) parks and recreational camps; automotive mechanical and electrical repair and maintenance; automotive body, paint, interior, and glass repair; other automotive repair and maintenance.
- Veterinary services.
- Waste collection.

## Quantity of Hazardous Waste Generated by Small Businesses

Precise figures are not available for the quantity of CESQG hazardous waste generated and how that waste is managed. Instead, this Plan presents rough estimates for 2009, the most recent year for which data is available for both properly disposed waste and the quantity of CESQG waste improperly disposed of as municipal solid waste.

Based on available data, this Plan estimates that **approximately 3.5 million pounds of CESQG waste was generated in 2009**, of which approximately:

- **7 percent was properly disposed** of through the HazoHouse (1%) and private collectors that are required to report to Ecology (6%).
- **Between 6 and 9 percent was improperly disposed** of in the landfill as municipal solid waste.
- **Between 83 and 87 percent remains unaccounted for**, although a large portion may be handled by private collectors that do not report to Ecology. A survey of Thurston County CESQG businesses conducted in 1992 suggested that 83 percent of CESQG hazardous waste was properly managed at that time.

Calculation details are provided in the following text boxes.

### How much total CESQG waste is generated?

According to the Department of Ecology's 2004 *Beyond Waste Plan*, waste from CESQG businesses is expected be at least equal to the quantity of household hazardous waste (HHW) generated, or approximately 1 percent of the total quantity of municipal solid waste generated.[10] In 2009, approximately 3.5 million pounds of municipal solid waste was disposed of in Thurston County, yielding an estimate that approximately 3.5 million pounds of CESQG waste was generated in 2009.

[10] Washington State Department of Ecology, *Summary of the Washington State Hazardous Waste Management Plan and Solid Waste Management Plan: Final Plan*, Publication Number 04-07-022, November 2004, Page 19, http://www.ecy.wa.gov/pubs/0407022.pdf

## How much CESQG wastes are disposed of properly?

In 2009, Thurston County's HazoHouse facility collected 45,990 pounds of materials from small businesses. Private hazardous waste collectors that were required to report to Ecology collected another 206,431 pounds of waste from CESQG businesses in 2009.[11] Consequently, approximately 7 percent of CESQG waste is estimated to have been disposed of properly through these channels. Other waste may have been disposed of properly through private hazardous waste collectors that did not report to Ecology. However, it should be noted that the quantities reported by private collectors in 2010 and 2011 are substantially lower—less than 50,000 pounds per year.

## How much CESQG wastes are disposed of in the landfill?

Thurston County's *Solid Waste Composition Study* from 2009 estimates that more than 206,000 pounds of "actual hazardous wastes" were disposed as solid waste from businesses in 2009 (see Table B-1).[12] Using a broader definition that includes all special wastes except animal excrement and carcasses, businesses may have disposed of nearly 333,620 pounds of CESQG waste and other materials of concern. Consequently, between 6 and 9 percent of CESQG waste may have been disposed of through the landfill.

## How much CESQG wastes are unaccounted for?

Based on the estimates above, between 83 and 87 percent of hazardous waste generated by CESQG businesses remains unaccounted for. Much of this waste is expected to be managed properly through private hazardous waste collectors. In 1992, Thurston County surveyed 312 CESQG businesses, finding that 83 percent of their hazardous waste was managed properly. This figure is provided for context with the following cautions: the data is 20 years old; the sample was not random and did not represent all types of CESQG businesses in Thurston County at that time; and the definition of CESQG has since changed to increase the amount of waste that a business can accumulate while being considered a CESQG.

[11] Washington State Department of Ecology, *Solid Waste in Washington State–19th Annual Status Report, Publication #10-07-031*, December 2010, Chapter 5—Moderate Risk Waste Management, page 128.

[12] Thurston County, "Solid Waste Composition Study 2009," prepared by Green Solutions, December 2009. *Table 4: Breakdown of Wood, C&D, and Special Wastes* and *Table 6: Weight of Disposed Materials*.

# CESQG Waste Management, Recycling, and Disposal

Thurston County encourages businesses to reduce their generation of hazardous waste whenever possible. Methods to reduce hazardous waste include:

- Substituting less hazardous materials in process and maintenance activities.
- Using a production method that eliminates or minimizes the amount of hazardous substances needed.
- Tracking product inventory and shelf life to use the oldest product first (to reduce waste due to product expiration).
- Exchanging unwanted products on a material exchange, such as the free statewide Industrial Materials Exchange (IMEX) program, where "waste" from one business is a useful input to another business.

For remaining hazardous substances and wastes, proper management and disposal is critical to protecting human health and the environment. Small businesses manage their hazardous wastes in different ways—some are legal and some are not. After on-site and local waste prevention, reduction, and reuse options are exhausted, recycling should be explored. The best disposal option is to send wastes to companies that have permits to recycle, reuse, neutralize, incinerate, or dispose of hazardous waste. Most large-volume wastes such as used oil, solvents, antifreeze, photo-related wastes, and oil filters are collected by hazardous waste disposal companies that operate throughout the county.

Since 1994, CESQG businesses have been able to dispose of waste, for a fee, at the County's HazoHouse. Fees are listed in Thurston County Code 8.12.030 and were last revised in 2003. In 2006, the County installed a specialized chemical recovery cartridge system at HazoHouse to recover silver from waste generated by small medical and dental offices; the recovered silver is sold to offset program costs.

In 2012, HazoHouse received 311 visits from CESQG customers, resulting in the disposal of a total of 30,155 pounds of hazardous waste. If each visit represents a unique CESQG customer and if Thurston County contains approximately 2,000 CESQGs, as estimated, then the HazoHouse serves approximately 12 percent of all CEQGSs. Quantities managed by private collectors were not available for 2012; however, in 2011, two major private collectors (Emerald Services and PSC) accepted 46,308 pounds of hazardous waste from businesses.

Illegal waste management practices include storage beyond accumulation limits; disposal into the garbage, sanitary sewer, ground, or septic system; burning or evaporation; and mixing with other wastes.

**Table B-10. HazoHouse CESQG Customers and Total Pounds of Hazardous Waste Collected**

| | Number of CESQG customers | Pounds of hazardous waste collected | Average pounds of hazardous waste per CEQSG |
|---|---|---|---|
| 2002 | 212 | 5,606 | 26 |
| 2003 | 291 | 27,940 | 96 |
| 2004 | 153 | 40,661 | 266 |
| 2005 | 201 | 36,176 | 180 |
| 2006 | 138 | 34,671 | 251 |
| 2007 | 151 | 26,857 | 178 |
| 2008 | 329 | 39,312 | 119 |
| 2009 | 367 | 45,990 | 125 |
| 2010 | 286 | 33,456 | 117 |
| 2011 | 270 | 25,010 | 93 |
| 2012 | 311 | 30,155 | 97 |

*Source: Thurston County Public Works Department and Public Health and Social Services Department.*

# Targeted Wastes and Sources for Technical Assistance

## Business Pollution Prevention (BPP) Program

Since 1993, the Business Pollution Prevention (BPP) program has helped local CESQG businesses to comply with hazardous waste regulations and implement best management practices for hazardous materials. To meet program objectives, County staff and business owners work together to reduce, properly manage, and safely dispose of wastes. This approach brings participating businesses into compliance with local regulations and may also improve their operations. This program also helps Thurston County's Storm and Surface Water Utility meet National Pollutant Discharge Elimination System (NPDES) requirements under the Federal Clean Water Act for illicit discharge, detection, and elimination outreach to businesses. The BPP program operates in two areas: technical assistance and information services.

The Business Pollution Prevention team provides the following information services:

- Printed online educational materials and fact sheets providing specific information on best waste management practices organized by type of business.
- Free on-site consultations to help identify the hazardous wastes that a business generates.
- Technical assistance to attempt to resolve voluntarily areas of noncompliance with the Thurston County Nonpoint Source Pollution Ordinance before initiating enforcement.
- Information on local public and private disposal options.

The BPP program also provides ongoing technical assistance through targeted campaigns. During technical assistance, the BPP program conducts one-on-one site visits to help CESQGs solve specific

problems, educates businesses about local regulations, and provides information on hazardous waste management.

The BPP program prioritizes targeted wastes and waste sources according to hazards, toxicity, exposure, and community needs. Originally, technical assistance campaigns focused on specific industry sectors. Recently, the technical assistance focus has shifted to address specific geographic wellhead protection areas (WHPAs). From 2003 to 2013, BPP campaigns have targeted the industry groups and geographic areas shown in Table B-11.

**Table B-11. Business Pollution Prevention Program Campaign Targets, 2003–2013**

| Category | 2003-2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|
| **Industry Focus** | | | | | | | |
| Automotive (General) | X | X | | | | | |
| Auto – Dealers | | | X | | | | |
| Auto – Detailers | X | | | | | | |
| Auto – Fleet Maintenance | X | | | | | | |
| Auto – Recyclers/Hulk Haulers | X | | | | | | |
| Auto – Repair | | | X | | | | |
| Carpet and Upholstery | X | | | | | | |
| Dentists | X | | | | | | |
| Dry Cleaners | X | | | | | | |
| Furniture Repair and Maintenance | X | | | | | | |
| Gravel Mines | | | | X | X | X | |
| Hardware, Lawn, and Garden | X | | | | | | |
| HVAC Contractors | X | | | | | | |
| Marinas | X | | | X | X | X | X |
| Photographers | X | | | | | | |
| Pools | | | | | X | X | |
| Printers | X | | | | | | |
| Regulated Generators | | | | X | | | |
| Schools – “Rehab the Lab” | X | | | | | | |
| X-Ray | X | | | | | | |
| **Geographic Focus** | | | | | | | |
| Allison Springs WHPA | X | | | | | | |
| Grand Mound WHPA | X | | | X | | | |
| Lacey WHPA | X | | | | | | |
| McAllister Springs WHPA | X | X | | | | X | X |
| Tumwater WHPA | X | X | | | | X | |
| Shoreline Program | X | | | | | | |

*Source: Thurston County Public Works Department and Public Health and Social Services Department*
*Notes: Automotive recyclers and haulers continue to receive inspections not associated with a campaign.*
*WHPA stands for wellhead protection area.*

Many of the BPP technical assistance campaigns focused on specific industries or waste streams and were conducted for a set duration. For example, from 2007 to 2009, a BPP campaign targeted automotive repair businesses to address liquid hazardous materials such as petroleum products, antifreeze, and solvents. At the beginning of the campaign, the BPP program found that 60 percent of the 139 businesses visited were already in compliance with hazardous waste regulations.

**Auto Repair Industry 96% Compliant**

In 2007–2009, the BBP program moved 139 automotive repair businesses from an average rate of 60 percent compliance with hazardous waste regulations to 96 percent compliance. Collectively, these businesses also voluntarily implemented 61 percent of best management practices recommended during site visits.

For the auto repair campaign, the BPP program developed and distributed hazardous waste fact sheets and conducted technical assistance site visits. During site visits, County staff members assessed the businesses' management of hazardous materials and discussed opportunities to implement best management practices. After the visit, business representatives were sent a compliance report with required and recommended actions. A follow-up survey of 23 participating businesses indicated that the majority (91%) found the technical assistance visit helpful in making changes to practices for managing hazardous materials.

At the end of the auto repair campaign, 134 of the businesses (96%) were in compliance, while five businesses were referred to the enforcement program for follow-up compliance activities. In addition, the businesses collectively had implemented 61 percent of the 348 BMPs that were collectively suggested during site visits (many businesses may have received the same BMP suggestions).

For all campaigns, Thurston County continues to work with non-compliant businesses through the Enforcement program if technical assistance has not been effective. Additionally, automotive recyclers and haulers continue to be inspected every two years. Staff members work to encourage them to implement best management practices and participate in the Department of Ecology's Auto Mercury Switch Removal and Rebate program.

For the 2008–2010 Coordinated Prevention Grant (CPG) funding cycle, the BPP program focused on the automotive industry, ongoing technical assistance through a campaign to marinas, and technical assistance to businesses in various wellhead protection areas throughout the county. Over the two-year grant period, the Hazardous Waste Program conducted 265 site visits to local CESQGs. More than 90 percent of CESQGs visited implemented at least one voluntary best management practice within three months of the receiving technical assistance, and 90 percent of businesses receiving Notices of Noncompliance achieved compliance within three months of the initial notice.

**Partnership with Marinas Protects Puget Sound**

The marina campaign collected 4,386 pounds of hazardous waste in 2008–2010. Hazardous waste collection sites at three marinas remain active in 2013, making it easy for boat owners moored in Puget Sound to dispose of hazardous waste properly.

The marina campaign included establishing collection sites at marinas so boat owners could easily dispose of hazardous waste properly. A total of 4,386 pounds of hazardous waste were collected from marinas in 2008–2010. The waste collected from these sites was processed at HazoHouse, and much of the recovered materials were recycled. Three marina collection sites remain active in 2013.

For the 2010–2012 CPG funding cycle, the BPP program continued to target marinas and wellhead protection areas as well as focusing on gravel mines and swimming pools.

To document successes and identify opportunities to improve, the County regularly evaluates program activities, documenting results in internal reports and reports to the Department of Ecology to fulfill grant requirements. Internal evaluations of CESQG technical assistance campaigns have documented both quantitative changes achieved in business practices as well as lessons learned to guide and improve future outreach.

## Inventory and Inspection of Businesses in Wellhead Protection Areas

Owners of water systems with wellhead protection areas are required to conduct an inventory of potential contaminant sources, including businesses that use or store hazardous waste, every two years. Thurston County has assisted these water system owners by developing lists of businesses that may require notification and by inspecting and providing technical assistance to high-priority businesses (as determined by a ranking matrix).

In 2009–2010, the County inventoried and inspected businesses in the Allison Springs, Lacey, Grand Mound, McAllister Springs, and Tumwater wellhead protection areas. Each of the affected water systems was provided with inspection reports for their water system reporting purposes. Thurston County also updated the list of businesses in the respective wellhead protection areas based on new wellhead boundaries. The wellhead inspection cycle was renewed in 2010 with the new boundaries in place and certain businesses receiving mandatory inspections.

## Thurston County Business Hazardous Waste Information Line

As part of outreach efforts to local businesses, the County also offers local businesses a hotline for information about managing and disposing of hazardous wastes. County staff members answer calls during normal business hours on weekdays. This hotline received approximately 171 calls during 2012.

Local businesses use the hotline to inquire about topics including how to dispose of wastes, the cost to businesses of using the HazoHouse, waste removal assistance (if the business has no method to transport it to the HazoHouse), and local discharge regulations. Many services provided to CEQSGs begin with a hotline call.

## Integrated Pest Management

The County promotes integrated pest management (IPM), a holistic method to reduce the need for toxic chemicals in pest and vegetation management by state and local agencies, businesses, and the general public. The County has adopted an Integrated Pest and Vegetation Management Policy that defines the principals of IPM and guides internal operations. A database has been developed of environmental fate and toxicology hazards of pesticides. The County also requires developers to submit IPM plans for certain land development or land use projects in unincorporated county only.

The County has conducted research and developed several fact sheets for preventing or managing specific pest or vegetative problems safely, often drawn from the methods used by Thurston County departments. Ongoing IPM programs focus on:

- Reviewing active ingredients in non-agricultural pesticides to identify environmental fate and toxicological hazards.
- Continuing work with County departments to develop IPM prescriptions for the control of pests and weeds on County-managed sites.
- Promoting IPM through the "Grow Smart, Grow Safe" campaign, in partnership with King County in Washington and Metro in Oregon. The campaign includes a website that encourages use of non-chemical control measures, followed by the lowest risk chemical management options; the downloadable and printed "Grow Smart, Grow Safe" guide; and a smart-phone application are currently in development.
- Providing pesticide reviews and IPM fact sheets electronically and in print form through retail partnerships.

An example of Thurston County's leadership in hazardous waste prevention, the IPM program combines research, technical assistance, and outreach to reduce hazardous substance use by County agencies, businesses that qualify as CESQGs, and by households.

# Opportunities and Constraints for Improving CESQG Waste Management

This section briefly lists gaps in Thurston County's small business collection assistance and technical assistance programs. Options for addressing these gaps are described in **Chapter G (Program Services)** and **Chapter I (Implementation Plan)**.

## Gaps in Services (Small Business Collection Assistance)

- An evaluation should be conducted of the need to amend Article VI of the Thurston County Health Code to allow use of civil penalties as a second penalty tool. This revision would allow the County to retain collected penalties rather than losing them to the state and court system.
- The authority of Article VI of the Thurston County Health Code to require cleanup of a contaminated site is limited and should be evaluated and clarified.
- While coordination has increased in recent years, opportunities remain to enhance regulatory coordination such as with wellhead protection programs, the Washington State Department of Health, NPDES programs in local cities, and business licensing agencies.

# Gaps in Services (Small Business Technical Assistance)

- No ongoing system for finding new businesses that move into the county or have changed regulatory status after the completion of technical assistance campaigns for their sector or geographic location, aside from businesses that require construction or development permits.
- Unless campaigns are repeated over time, it is difficult to ensure ongoing compliance of existing businesses, and new businesses in past campaign categories may not remain in compliance with requirements.
- Need for additional research and analysis of existing information about CESQGs to inform and prioritize outreach activities, particularly regarding number, sector, and locations of businesses; current use and storage of hazardous products; disposal needs and behaviors; and obstacles and motivations regarding prevention and proper use, storage, and disposal.
- Opportunities exist to increase coordination with business, Washington State Department organizations, and local agencies.
- Systems for managing data and evaluating information about campaigns could be improved.
- Additional funding could support cycled (repeated over time) or ongoing campaigns.
- Information on inspections and violations could be entered into or otherwise integrated with the County's permit tracking system, known as AMANDA.

# Hazardous Waste Inventory and Zone Designations

## Dangerous Waste Generators

Businesses that create hazardous waste are called dangerous waste generators and are regulated according to how much and what type of wastes they generate each month and accumulate (temporarily store) on-site at any given time. All businesses that generate or store any dangerous wastes must follow federal, state, and local regulations for proper management. Businesses that generate "acute dangerous wastes" and certain "extremely hazardous wastes" must comply with additional requirements when they generate more than 2.2 pounds per month. For other dangerous and extremely hazardous wastes, additional requirements become applicable when monthly generation reaches 220 pounds.

Table B-12 presents generation and accumulation limits for the three categories of dangerous waste generators: conditionally exempt small quantity generator (CESQG), medium quantity generator (MQG), and large quantity generator (LQG).

**Table B-12. Dangerous Waste Generator Status—Monthly Generation and Total Accumulation Limits**

| | | Wastes with limit of 2.2 pounds | | Wastes with limit of 220 pounds |
|---|---|---|---|---|
| | | Extremely Hazardous Waste | Acute Dangerous Waste | Extremely Hazardous Waste or Dangerous Waste |
| CESQG | Generate | Less than 2.2 pounds | Less than 2.2 pounds | Less than 220 pounds |
| | Accumulate | 2.2 pounds or less | 220 pounds or less | 2,200 pounds or less |
| MQG | Generate | There is no MQG status for these wastes (2.2-pound limit): such generators have LQG status | | At least 220 pounds, but less than 2,200 pounds |
| | Accumulate | | | 2,200 pounds or less |
| LQG | Generate | 2.2 pounds or more | 2.2 pounds or more | 2,200 pounds or more |
| | Accumulate | More than 2.2 pounds | More than 220 pounds | More than 2,200 pounds |

*Source: Department of Ecology, Dangerous Waste Annual Report: Dangerous Waste Generator Status,* www.ecy.wa.gov/programs/hwtr/waste-report/gen_status_table.htm.

The Department of Ecology requires that all MQG and LQG businesses submit reports about their dangerous waste and activities. Some CESQGs also submitted reports in 2012, although most CESQGs are not required to do so. In January 2013, Ecology's databases showed that Thurston County contained:

- 8 large quantity generators.
- 15 medium quantity generators.
- 51 small quantity generators that reported to Ecology.
- 26 businesses considered "ex-generators" (XQG) because they had previously reported generation to Ecology but did not do so in the most recent reporting year.

Table B-13 presents the distribution of the 100 reporting generators across Thurston County cities. Appendix 10 includes a table listing the names and addresses of these businesses.

**Table B-13. Number of Thurston County Dangerous Waste Generators by City and Designation**

| | LQG | MQG | SQG | XQG | Total |
|---|---|---|---|---|---|
| **Olympia** | 6 | 5 | 28 | 14 | 53 |
| **Lacey** | 1 | 4 | 14 | 4 | 23 |
| **Tumwater** | | 5 | 8 | 5 | 18 |
| **Yelm** | 1 | 1 | 1 | 1 | 4 |
| **Littlerock** | | | | 1 | 1 |
| **Rainier** | | | | 1 | 1 |
| **Total** | **8** | **15** | **51** | **26** | **100** |

*Source: Data provided by Kathleen Kaynor, Department of Ecology, on January 25, 2013.*

## Remedial Action Sites

As of February 2012, Thurston County contained 207 confirmed or suspected contaminated sites. More than half of the sites were located in Olympia (100 sites), Lacey (17 sites), or Tumwater (10 sites). Thurston County GeoData Center's database does not identify a city for 65 sites—these sites may be located in unincorporated Thurston County or may have incomplete records. Figure B-1 on page 35 presents a map of contaminated sites. Appendix 11 includes a list of these sites by type of contaminant and cleanup stage.

Cleanup or construction has been completed for four sites, as shown in Table B-14. Cleanup has started or been reported on 86 sites, while another 53 sites are awaiting cleanup. No status was listed in the database for 64 sites.

**Table B-14. Number of Confirmed or Suspected Contaminated Sites in Thurston County by City**

| | Cleanup or Construction Complete | Cleanup Started or Reported | Awaiting Cleanup | No Status Listed | Total |
|---|---|---|---|---|---|
| **Olympia** | 2 | 67 | 31 | | 100 |
| **Lacey** | | 11 | 6 | | 17 |
| **Tumwater** | 2 | 4 | 4 | | 10 |
| **Rochester** | | | 8 | | 8 |
| **Tenino** | | 1 | 2 | | 3 |
| **Littlerock** | | | 1 | | 1 |
| **Yelm** | | | 1 | | 1 |
| **Rainier** | | 1 | | | 1 |
| ***No city listed*** | | 2 | | 64 | 66 |
| **Total** | **4** | **86** | **53** | **64** | **207** |

*Source: Thurston County GeoData Center, "Confirmed or Suspected Contaminated Sites," February 2012.*

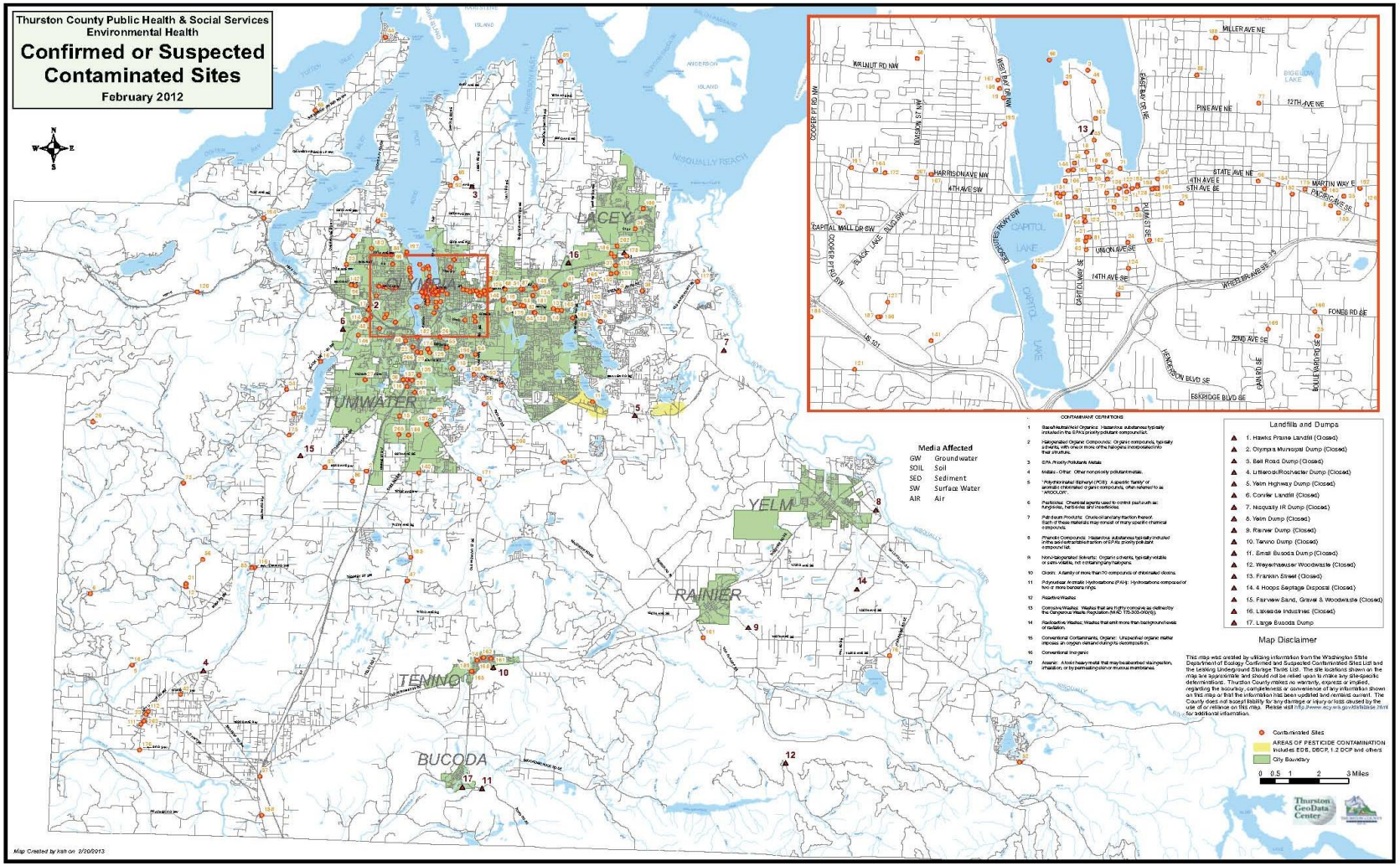
Table B-15 lists the number of sites contaminated by 17 major types of contaminants. Approximately 86 percent of sites are contaminated by petroleum products. Figures in Table B-15 sum to more than the total number of sites because approximately 70 sites are contaminated with multiple pollutants.

**Table B-15. Thurston County Sites by Contaminant Type**

| Contaminant | Number of Contaminated Sites |
|---|---|
| 1. Base/Neutral/Acid Organics | 3 |
| 2. Halogenated Organic Compounds | 13 |
| 3. Metals—EPA Priority Pollutants Metals | 45 |
| 4. Metals—Other Non-Priority Pollutant Metals | 11 |
| 5. Polychlorinated Biphenyls (PCBs) | 9 |
| 6. Pesticides | 10 |
| 7. Petroleum Products | 178 |
| 8. Phenolic Compounds | 4 |
| 9. Non-Halogenated Solvents | 33 |
| 10. Dioxins | 5 |
| 11. Polynuclear Aromatic Hydrocarbons (PAHs) | 25 |
| 12. Reactive Wastes | 0 |
| 13. Corrosive Wastes | 1 |
| 14. Radioactive Wastes | 0 |
| 15. Conventional Contaminants—Organic | 2 |
| 16. Conventional Contaminants—Inorganic | 0 |
| 17. Arsenic | 0 |

*Source: Thurston County GeoData Center, "Confirmed or Suspected Contaminated Sites," February 2012.*

**Figure B-1. Map of Confirmed or Suspected Contaminated Sites**



# Dangerous Waste Transporters

Companies that transport dangerous waste or serve as transfer facilities must register with the Department of Ecology. Statewide, 78 companies have registered with the Department of Ecology as transporters of dangerous waste generated by other companies, and 46 companies have registered as transfer facilities. Any of these companies, listed in Appendix 12, could handle waste originally generated in Thurston County.

Eight companies with Thurston County addresses registered as dangerous waste transporters. These companies, listed in Table B-16, fall into three categories:

- One company is a transfer facility.
- Two companies are transporters of waste from other companies.
- Five companies are transporters of their own dangerous waste.

**Table B-16: Thurston County Dangerous Waste Transporters**

| Common Name | Address | City |
|---|---|---|
| **Transfer Facility** | | |
| Four Star Accessory Overhaul | 7711 NEW MARKET ST SW | Tumwater |
| **Transporter of Others' Waste** | | |
| DLB Earthwork Company | 2823 29th Ave SW | Tumwater |
| Pacific Cleaners | 3530 PACIFIC AVE SE | Olympia |
| **Transporter of Own Waste** | | |
| Panorama City | 1751 CIRCLE LANE SE | Lacey |
| South Puget Sound Community College | 2011 MOTTMAN RD SW | Olympia |
| Summit Lake Antiques | 10724 SUMMIT LAKE RD NW | Olympia |
| New Market Vocational Skill | 7299 NEW MARKET ST SW | Tumwater |
| Tumwater School District | 419 LINWOOD AVE SW | Tumwater |

*Source: Data provided by Kathleen Kaynor, Department of Ecology, on January 25, 2013.*

# Dangerous Waste Facilities

The Department of Ecology tracks active dangerous waste facilities that are permitted to treat, store, dispose, or recycle (TSDR) hazardous waste or process used oil. None of these facilities is located within Thurston County, although 17 companies could potentially accept waste that is generated within the county:

- Five companies registered as commercial TSDRs—for-profit waste management businesses that, subject to certain rules and standards, treat, dispose, store, or recycle dangerous wastes from any generator.
- Five companies registered for recycling only—commercial waste management companies that accept wastes for reclaiming or recycling useful products.
- Seven companies registered as used oil processors—only accept used oil for processing into alternative fuels or other lubricants.

**Table B-17. Active Dangerous Waste and Used Oil Facilities Accepting Waste Generated Off-Site**

| Active Facility Name | Type | Location |
|---|---|---|
| **AREVA NP Inc.** | Commercial TSDR | Richland |
| **Emerald Services** | Commercial TSDR | Tacoma |
| **Perma-Fix Environmental Services (PacificEcoSolutions)** | Commercial TSDR | Richland |
| **PSC (Philip/BEI - Kent)** | Commercial TSDR | Kent |
| **PSC (Philip/BEI - Tacoma)** | Commercial TSDR | Tacoma |
| **999, Inc.** | Recycle only | Pasco |
| **EcoLights Northwest** | Recycle only | Seattle |
| **Hallmark Refining** | Recycle only | Mount Vernon |
| **Phoenix Environmental** | Recycle only | Tacoma |
| **Total Reclaim** | Recycle only | Seattle |
| **Emerald Petroleum (Seattle)** | Used oil processor | Seattle |
| **Emerald Petroleum (Vancouver)** | Used oil processor | Vancouver |
| **Marine Vacuum Services** | Used oil processor | Seattle |
| **Petroleum Reclaiming Services** | Used oil processor | Tacoma |
| **ThermoFluids (Spokane)** | Used oil processor | Spokane |
| **ThermoFluids (Sumner)** | Used oil processor | Sumner |
| **Venoil** | Used oil processor | Anacortes |

*Source: Department of Ecology, "Active Hazardous Waste and Used Oil Facilities in Washington State," accessed April 28, 2013 (www.ecy.wa.gov/programs/hwtr/hwfacilities/pages/activefac.html).*

# Zone Designation

Local governments were required to establish land use zones or geographic areas for siting "designated zone facilities," such as hazardous waste recycling, storage, and treatment facilities by July 1, 1988. These local zoning requirements must be consistent with the state's hazardous waste facility siting

criteria, and must allow hazardous waste processing or handling where hazardous substances (such as raw materials) are processed or handled.

It is required for Local Hazardous Waste Plans to describe the eligible zones designated in each jurisdiction in accordance with RCW 70.105.225. According to Ecology records, the following jurisdictions have approved land use zones described in local ordinance. Specific information on eligible zones in each jurisdiction can be found in the local ordinances referenced below (ordinance numbers refer to those used in 1988).

- Thurston County (Title 20 of the Thurston County Code of Ordinance and Chapters 21, 22 and 23 of the Thurston County Critical Areas Ordinance)
- Olympia (Ordinance 4933)
- Lacey (Ordinance 835)
- Tumwater (Ordinance 095-035)
- Yelm (Ordinance 346)
- Bucoda (Ordinance 225)
- Tenino (Ordinance 460)

# Changes from the Previous Plan

Since the previous Hazardous Waste Management Plan was adopted in 1998, Thurston County's population has grown, as has the amount of HHW and used oil collected and disposed of properly. Use of County-provided collection options has grown faster than the county's population, indicating a positive trend in HHW disposal opportunities. Thurston County residents now have a method to dispose of medicines safely, and the WasteMobile offers residents in rural areas a way to dispose of HHW without visiting HazoHouse. E-Cycle Washington allows residents to recycle electronics at no cost through a manufacturer-funded product stewardship program. However, more than two-thirds of household hazardous waste still seems to be disposed of in the landfill or is unaccounted for.

The County has made progress in preventing and ensuring proper disposal of CESQG hazardous waste as well. Since 1998, Thurston County has worked with hundreds of businesses to bring them into compliance with hazardous waste management rules and motivate them to adopt voluntary best management practices. In 2006, the County installed a specialized chemical recovery cartridge system at HazoHouse to recover silver from waste generated by small medical and dental offices; the recovered silver is sold to off-set program costs.

New trends have emerged in high-profile substances and products and in waste collection methods:

- Compact fluorescent lamps (CFLs) have become common, creating another waste stream to manage.
- A growing portion of the public has become aware of and concerned about chemicals that do not present an acute hazard but are widely used, such as Bisphenol-A, phthalates, and substances in personal care products.

- Producer responsibility and product stewardship, in which manufacturers take responsibility for proper recycling and disposal of their products after consumers are finished with them, is growing in the region, with the passage of legislation on take-back of electronics and mercury-containing lights.

Since the previous plan was written in 1998, Washington State and Thurston County have adopted new plans and policies that affect how hazardous substances and waste are addressed, including the following:

- *Beyond Waste Plan,* 2004.
- *Beyond Waste Plan 2009 Update.*
- *Guidelines for Developing and Updating Local Hazardous Waste Plans*, 2010.
- *Department of Ecology 2013-15 Strategic Plan.*
- *The 2012/2013 Action Agenda for Puget Sound.*
- *Wellhead Protection Program Guidance Document*, 2010.
- Chemical action plans for mercury (2003), polybrominated diphenyl ether (PBDE) (2006), lead (2009), and polycyclic aromatic hydrocarbon (PAH) (2012).

Thurston County has also adopted or updated related plans including the *Solid Waste Management Plan* (2009), *On-Site Sewage System Management Plan* (2008), and "Health and Human Services" chapter of the *Thurston County Comprehensive Plan* (2012).

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# Chapter C. Legal Authority and Enforcement

## Contents



## Tables and Figures

Legal authority for regulating the management of hazardous waste starts at the federal level, with certain responsibilities delegated to the states and, in turn, local governments. Legal authority for Thurston County's Hazardous Waste Program is based on Washington State statutes and Thurston County Sanitary Code. Federal law exempts waste from household hazardous waste (HHW) and waste from conditionally exempt small quantity generators (CESQGs) from federal regulation. Figure C-1 highlights the key regulations governing legal authority for hazardous waste management, which are described in more detail in the remainder of this section.

**Figure C-1. Overview of Key Regulations and Authority**

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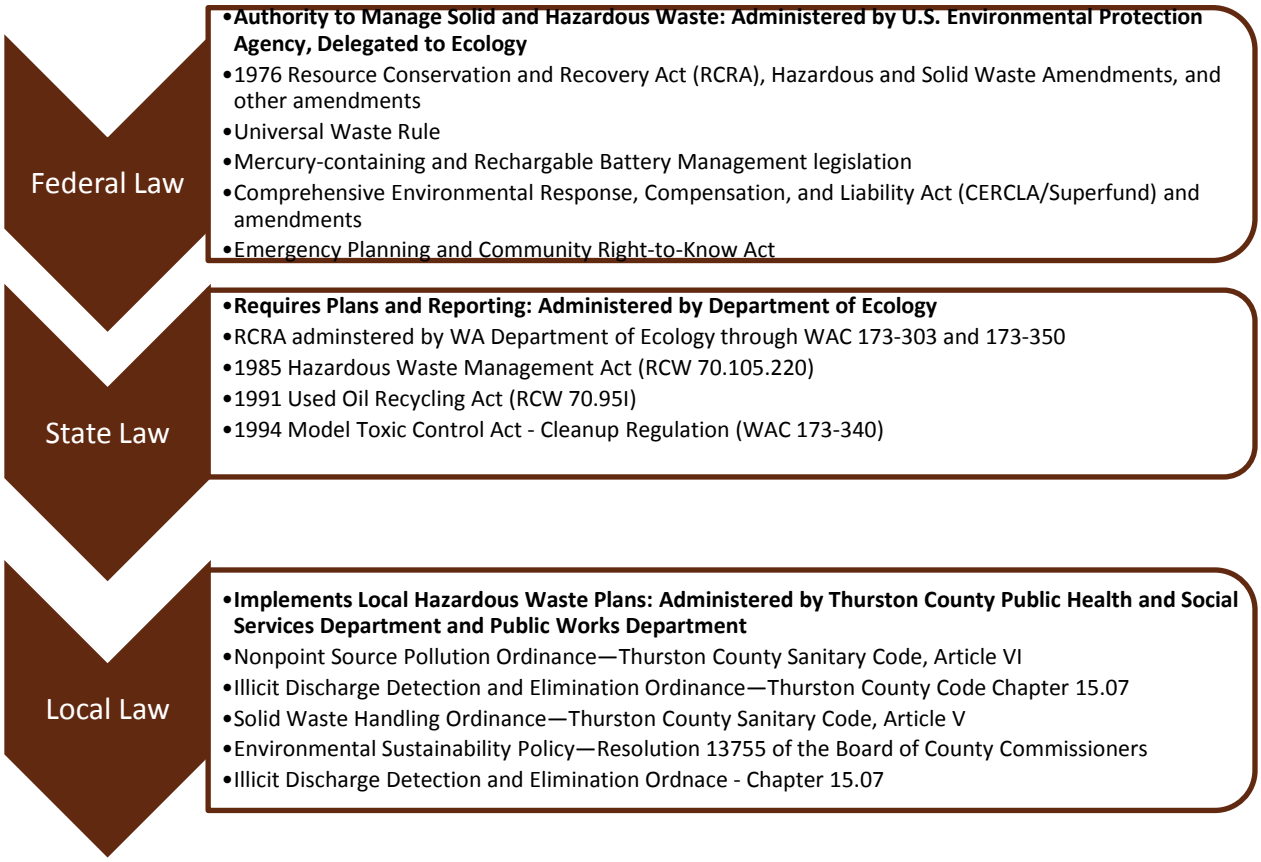

# Legal Authority

## Federal Regulations

The 1976 Resource Conservation and Recovery Act (RCRA) addresses management of solid and hazardous waste at the federal level. RCRA exempts small quantity generators (SQGs) and household hazardous waste (HHW) from hazardous waste regulation at the federal level to allow a greater focus on large generators of hazardous waste. RCRA also delegates the management of solid and hazardous wastes to the states, at their request. In Washington State, the management of solid and hazardous waste was delegated to the Department of Ecology by the United States Environmental Protection Agency (EPA) through the RCRA State Authorization rulemaking process. The RCRA program is administered by Ecology through the Washington State Dangerous Waste Regulations in Washington Administrative Code (WAC) Chapter 173-303, Solid Waste Handling Standards in WAC Chapter 173-350 (which includes moderate risk waste), and Criteria For Municipal Solid Waste Landfills in WAC Chapter 173-351.

Relevant federal laws and regulations include the following, which are described below:

- Resource Conservation and Recovery Act.
- Universal Waste Rule.
- Mercury-Containing and Rechargeable Battery Management legislation.
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA/Superfund).
- Emergency Planning and Community Right-to-Know Act, which establishes the Toxics Release Inventory (TRI) program.

### Resource Conservation and Recovery Act

The primary federal legislation addressing solid and hazardous waste management is the Resource Conservation and Recovery Act (RCRA), passed in 1976. It provides a comprehensive framework for managing solid and hazardous wastes with the intent of eliminating or minimizing public health threats and contamination caused by these wastes. RCRA was modified with the passage of the Hazardous and Solid Waste Amendment (HSWA) in 1984. An important component of HSWA was a mandate to revise the criteria for classification of solid waste disposal facilities and practices, which established minimum technical standards for design and operation of solid waste facilities. This mandate arose, in part, as a result of concerns about the disposal of unregulated quantities of hazardous waste at municipal landfills.

RCRA Subtitle C, the hazardous waste management program, and Subtitle D, the solid waste program, provide the primary sources of federal regulation associated with HHW and SQG hazardous waste. Subtitle C establishes a framework for managing hazardous waste by regulating the following:

- Generators that produce and accumulate hazardous waste in quantities above limits specified by EPA or state rule.
- Hazardous waste transporters.
- Treatment, storage, and disposal facilities handling hazardous waste.

Hazardous waste generated or stored above the quantity exclusion limits is tracked with a manifest system from its point of generation to its final disposal site, better known as "cradle-to-grave" tracking. Businesses or institutional generators producing and storing hazardous wastes below the limits are not fully regulated, provided that they comply with certain rules specified by EPA or the state regarding designation, management, and reporting of wastes. HHW is categorically exempt from RCRA regulation and has no generation or storage limit at the federal level.

EPA delegated to Washington's Department of Ecology the authority to implement the RCRA Subtitle C program.

## Universal Waste Rule

In 1995, EPA adopted the Universal Waste Rule, in 40 *Code of Federal Regulations* (CFR) Part 273, which streamlines regulation of certain hazardous wastes, including specific types of batteries, pesticides, and mercury-bearing thermostats. The rule is intended to reduce—for fully regulated, large generators—the regulatory burdens associated with the storage, collection, and transportation of these wastes and to improve the economics of proper recycling and disposal of these materials. States can adopt any portion of the universal waste rule, which gives them flexibility in regulating these waste streams. The universal waste rule was adopted in 1997 in Washington without the agricultural pesticides provision because the state already had a regulatory program to manage those wastes. In Washington State, mercury-containing lights and lamps, batteries, thermostats, and other mercury-containing equipment were included in the universal waste rule.

## Mercury-Containing and Rechargeable Battery Management Legislation

In May 1996, the federal Mercury-Containing and Rechargeable Battery Management Act was passed, Public Law 104-142. This statute provides for uniform labeling of batteries; requires products operating on rechargeable batteries to allow for easy removal of batteries; streamlines regulation of used nickel-cadmium batteries; and prohibits the sale of mercuric-oxide button cell batteries and alkaline-manganese or zinc-carbon batteries with mercury added.

## Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA/Superfund)

Along with RCRA, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)—more commonly known as the "Superfund" Act—is a key statute regarding hazardous waste management. RCRA is designed to prevent hazardous waste releases to the environment by managing them from "cradle to grave." Superfund complements RCRA by providing for the *cleanup* of sites contaminated by hazardous waste. In many cases, the sites addressed under Superfund are inactive or abandoned. Contamination at many of the sites occurred before RCRA was enacted, when less was known about the effects of hazardous waste disposal on human health or the environment. Superfund provides EPA with the financial resources and authority to clean contaminated sites. EPA, along with state regulatory agencies, may enter into agreements with responsible parties for cleanup, issue orders requiring responsible parties to clean contaminated sites, or directly perform cleanup. Superfund and state-listed contaminated sites in Thurston County are described in Chapter B (Analysis of Current Conditions).

In 1986, the Superfund Amendments and Reauthorization Act (SARA) was passed. Title III of SARA is known as the Emergency Planning and Community Right-to-Know Act. Title III established requirements related to emergency planning and notification, emergency release notification, and reporting of chemical releases for community right-to-know (the Toxics Release Inventory, or TRI database).

## Other Related Federal Laws

Other federal legislation related to hazardous materials and waste management includes the following:

- **Hazardous Materials Transportation Act and the Hazardous Materials Transportation Uniform Safety Act**—regulates the transportation of hazardous materials, including wastes.
- **Toxic Substances Control Act**—regulates the manufacture and use of chemicals that pose unreasonable risks to human health or the environment, including polychlorinated biphenyls (PCBs) and asbestos.
- **Federal Insecticide, Fungicide, and Rodenticide Act**—regulates the manufacture, labeling, use, storage and disposal of pesticides.
- **Safe Drinking Water Act**—sets maximum contaminant levels for drinking water supplies, including surface and groundwater sources; relates to wellhead protection.
- **Clean Air Act**—regulates air pollutant emissions. A 1996 rule set standards for controlling emissions of methane and other organic compounds at municipal solid waste landfills.
- **Clean Water Act** (Federal Water Pollution Control Act)—regulates discharges to waters through the National Pollutant Discharge Elimination System (NPDES), a permit program that regulates direct discharges of pollutants to navigable waters, and through pretreatment standards that regulate discharges to publicly owned treatment facilities. Ecology has been delegated authority to issue NPDES permits in Washington State to facilities that discharge wastewater directly into surface waters. Relates to Article VI of Thurston County's Sanitary Code—the Nonpoint Source Pollution Ordinance.

- **Occupational Safety and Health Act** —requires employers inform workers of the potential dangers associated with exposure to hazardous materials and to take efforts to prevent exposure.

# State Regulations

Solid and hazardous wastes are regulated in Washington State through multiple statutes and regulations. The primary statutes related to solid and hazardous waste management are the Hazardous Waste Management Act (Chapter 70.105 of the Revised Code of Washington [RCW]) and the Solid Waste Management Act (Chapter 70.95 RCW). Additionally, the Washington State Model Toxics Control Act (MTCA) establishes an administrative process and standards to identify, investigate, and clean up facilities where hazardous substances have been located.

Key state regulations include the following, described in the following sections:

- Hazardous Waste Management Act
- Solid Waste Management Act
- Model Toxics Control Act
- Pollution Prevention Planning Act
- Used Oil Recycling Act

## Hazardous Waste Management Act

The Hazardous Waste Management Act (Chapter 70.105 RCW) regulates the transport, treatment, storage, and disposal of hazardous waste. The act identifies responsibilities of local governments related to hazardous waste management. The act directs local governments to develop plans to address hazardous wastes and develop a locally appropriate system for safely managing hazardous waste and used motor oil. Other sections of the act address coordination with other hazardous materials-related plans and policies and with privately owned hazardous and moderate-risk waste facilities and services.

To implement Chapter 70.105 RCW, the Department of Ecology adopted the Dangerous Waste Rule in Chapter 173-303 of the Washington Administrative Code [WAC]). The Dangerous Waste Rule addresses the designation of dangerous wastes, requirements for waste generators and transporters, requirements for facilities that handle or manage these wastes, and criteria for siting hazardous waste management facilities. Chapter 173-303 WAC requires all businesses to determine whether the wastes they generate are hazardous waste and to ensure hazardous wastes are properly stored, transported, and disposed of from “cradle to grave.” The rule contains detailed requirements that must be met by hazardous waste generators; transporters; and owners/operators of hazardous waste treatment, storage, disposal, and recycling facilities.

Households as well as businesses and other institutions that generate small volumes of hazardous waste are classified as conditionally exempt small quantity generators (CESQGs) and are exempt from the dangerous waste regulations, provided they properly store, transport, and dispose of their wastes. Wastes from households and CESQGs are defined as “moderate risk wastes,” and their disposal is regulated under Solid Waste Handling Standards (Chapter 173-350 WAC). The Department of Ecology

regulates medium and large quantity generators, while delegating authority to regulate and educate households and CESQGs to counties.

## Solid Waste Management Act (includes Moderate Risk Waste Handling)

Moderate risk wastes—hazardous wastes generated by households and CESQGs—are considered solid wastes and are regulated under the Solid Waste Management – Reduction and Recycling Act (Chapter 70.95 RCW). This law defines moderate risk waste and establishes minimum functional standards for moderate waste handling and disposal as well as criteria for siting facilities. Local governments, including Thurston County, are delegated authority for solid waste planning, facility siting, permitting, inspections, and enforcement activities.

To implement Chapter 70.95 RCW, the Department of Ecology adopted 173-350 WAC. The Solid Waste Handling Standards describe handling requirements for moderate risk wastes including minimum functional standards for the design and operation of moderate risk waste storage and processing facilities, such as Thurston County's HazoHouse, and mobile and event-based collection of moderate risk wastes, such as Thurston County's WasteMobile.

## The Model Toxics Control Act

The Model Toxics Control Act (Chapter 70.105D RCW), commonly known as MTCA, was created by citizens' Initiative 97. This act provides for the identification and clean-up of hazardous waste sites in Washington State. This act is the state equivalent of the federal Superfund law discussed earlier. The act assigns liability to certain parties for damages to the environment and human health, provides enforcement authority for the Department of Ecology, and establishes penalties for failure to comply with Ecology orders. Initiative 97 also created a tax on the wholesale value of hazardous substances as well as state and local toxics control accounts to receive the funds. The state account funds state hazardous waste and solid waste planning, enforcement, technical assistance, remedial actions, public education, and emergency response training. The law also provides funding for the development and implementation of local hazardous waste management plans by local governments. The local account provides grants to local governments for remedial actions as well as local solid and hazardous waste programs. Ecology has delegated authority to Thurston County to participate in investigating and remediating contaminated sites.

## Used Oil Recycling Act

The Used Oil Recycling Act (RCW Chapter 70.95I), passed in 1991, requires local governments to include a used oil recycling element in their local hazardous waste plans. The act specifies requirements for transport, treatment, recycling, and disposal of used oil. Local governments are also required to submit an annual report to the Department of Ecology describing the number of collection sites in operation and amount of used oil collected at these sites.

### Electronic Product Recycling Act

In 2006, the Washington legislature passed the Electronic Product Recycling Act, RCW 70.95N, requiring manufacturers to fund and implement a convenient, safe and environmentally sound system for collecting and transporting covered electronic products, now known as E-Cycle Washington. Covered electronics include televisions, computers, computer monitors and portable or laptop computers. Manufacturers must finance the collection, transportation and recycling system. Regulations set by Ecology in WAC 173-900 govern program implementation. The E-Cycle Washington program, launched January 1, 2009, provides recycling for unwanted TVs, monitors, computers and laptops from residents, small businesses, charities, school districts, and small governments. The system is available at no charge at registered collection sites throughout Washington.

### Other Related State Laws

- **Oil and Hazardous Substances Spills Act and Oil Spill Prevention and Response Act**—addresses preventing spills, maintaining a high degree of response readiness, and conducting environmental restoration after spills.
- **Washington Industrial Safety and Health Act (WISHA)**—corresponds at the state level to the federal Occupational Safety and Health Act (OSHA), requiring employers to label hazardous materials properly, inform workers about the potential dangers associated with exposure to hazardous materials, and meet standards for preventing worker exposure to hazardous materials.
- **Water Quality Standards for Surface Waters of the State of Washington**—addresses protecting surface water resources from pollution, NPDES permitting, and nonpoint source control.
- **Powers and Duties of Local Board of Health (RCW 70.05.060)**—grants local boards of health the authority to enact such local rules and regulations as are necessary to preserve, promote, and improve the public health and provide for the enforcement thereof, among other powers.

### Other Related State Plans and Policies

The Department of Ecology has adopted the following policies and plans related to hazardous waste:

- *Beyond Waste Plan* for solid and hazardous waste management adopted in 2004 and updated in 2009.
- Department of Ecology's Strategic Plan 2011–2013.
- Department of Ecology's Hazardous Waste and Toxics Reduction Program Plan for 2009–2011.

## Local Regulations and Enforcement

Under RCW Chapter 70.105, local governments are assigned the responsibility to develop and implement plans for managing moderate-risk waste, while hazardous waste planning and implementation (for wastes from medium and large quantity generators) are assigned to the state.

Multiple local government agencies described in this section have regulatory authority that affects the handling and disposal of hazardous waste. Thurston County's Public Health and Social Services Department is the lead local agency for enforcing local hazardous waste regulations. The primary local regulation is Article VI (Nonpoint Source Pollution) of the Sanitary Code.

# Local Regulations

## Nonpoint Source Pollution Ordinance—Thurston County Sanitary Code, Article VI

In 1992, the Nonpoint Source Pollution Ordinance (Article VI of the Thurston County Sanitary Code) was adopted by the Thurston County Board of Health. This ordinance applies to controlling the discharge of small amounts of hazardous waste and animal wastes into the environment. In terms of hazardous waste rules, the ordinance sets standards for managing household hazardous waste, small quantity generator hazardous wastes, and petroleum wastes. Specifically, Thurston County's ordinance prohibits these wastes from being dumped in the trash or on the ground, put down the drain, or burned. Through this local law, the Public Health and Social Services (PHSS) Department has authority to investigate reports of improper storage or disposal and to take appropriate actions to ensure hazardous wastes are properly managed. This law is also used in technical assistance to help local businesses and homeowners understand the potential consequences of not complying voluntarily with hazardous waste rules.

## Illicit Discharge Detection and Elimination Ordinance—Thurston County Code Chapter 15.07

The Illicit Discharge Detection and Elimination Ordinance, Chapter 15.07 of the Thurston County Code, prohibits the discharge of pollutants (including hazardous materials) to storm drainage facility and requires the reporting of such discharges to the County. The ordinance also requires the use of structural and non-structural best management practices (BMPs) to prevent illicit discharges. In particular, commercial and industrial facilities are required to adopt and follow spill prevention and clean-up plans at a minimum, in addition to implementing other source control BMPs listed in the source control chapter of Thurston County's drainage manual. In addition, illicit connections to municipal storm drainage facilities, such as connecting a sanitary sewer or floor drain to the storm sewer, are prohibited. The Director of the Thurston County Resource Stewardship Department (or any authorized representative) is allowed to conduct inspections and enforce the ordinance, although the County will initially rely on technical assistance to gain compliance.

## Solid Waste Handling Ordinance—Thurston County Sanitary Code, Article V

The Thurston County Solid Waste Handling Ordinance (Article V of the Thurston County Sanitary Code) empowers PHSS to issue operating permits, conduct inspections, and carry out enforcement related to solid waste facilities such as landfills, transfer stations, moderate risk waste and recycling facilities. Authority to investigate complaints of illegal garbage dumping is also defined in this local law. A special provision in this ordinance prohibits disposal of dangerous wastes and moderate risk wastes in a solid

waste facility unless the facility is permitted to accept such wastes. The ordinance also sets standards for screening waste before it is allowed to be disposed and before it is accepted at the Thurston County Waste and Recovery Center at Hawks Prairie.

### Environmental Sustainability Policy—Resolution 13755 of the Board of County Commissioners

In 2007 Thurston County's Board of County Commissioners adopted an Environmental Sustainability Policy, replacing the earlier Recycled Product Procurement Policy. The revised policy affirms the County's commitment to source reduction (waste prevention), reuse, and recycling by directing County agencies to reduce waste and purchase and use environmentally preferable products, including less toxic alternatives. For example, the County primarily uses safer cleaners with third-party certification, such as Green Seal.

### Illicit Discharge Detection and Elimination Ordinance (IDDE) – Chapter 15.07

The IDDE ordinance is to protect Thurston County surface water and ground water quality by eliminating, reducing or controlling the discharge of pollutants to publicly or privately owned storm drainage facilities within unincorporated Thurston County.

## Complementary Programs by Local Agencies

### Industrial Pretreatment Program

The LOTT Clean Water Alliance operates an Industrial Pretreatment Program (IPP) to protect its wastewater treatment plant and Puget Sound. To prevent pollutants from entering the wastewater plant, LOTT regulates the discharge of significant quantities of wastewater and materials that could adversely affect the collection system, the sewage treatment plant, its workers, or Budd Inlet. By regulating wastewater discharges, the IPP helps prevent improper disposal of hazardous substances and wastes.

LOTT issues pretreatment permits to significant industrial users and minor significant users of its system, and it also issues discharge authorizations (which are less detailed than permits) to smaller businesses that discharge potentially problematic wastes to the sanitary sewer. LOTT also sets limits for such contaminants as heavy metals; fats, oils, and greases; and organic chemicals.

### Fire Prevention and Emergency Response

Local fire departments and fire districts require safe handling and use of hazardous materials in their respective jurisdictions. Fire departments and districts provide inspection, compliance, and enforcement services under national, state, and local codes and regulations. These inspections complement pollution prevention inspections of businesses and technical assistance conducted by the Hazardous Waste Program. A number of articles in the International Fire Code, set multiple and specific requirements regarding storage and use of hazardous materials, safety equipment and features, and procedures.

### Air Pollution Control

The Olympic Region Clean Air Agency (ORCAA) is a regional government agency that enforces federal, state, and local air quality standards, laws, and regulations in Thurston County and neighboring counties. ORCAA is responsible for regulating new and existing air pollution sources, ranging from large industrial complexes and hospitals to dry cleaners, auto body repair shops, and gasoline stations—many of which are also conditionally exempt small quantity generators of hazardous waste.

The agency issues operating permits and new source permits, offers a business technical assistance program, runs an ambient air monitoring network, regulates asbestos abatement projects, regulates open burning, declares burn bans when needed, and conducts special studies.

### Local Emergency Planning Committee

The Local Emergency Planning Committee (LEPC) is an interagency group made up of representatives from public agencies, citizen groups, and industry. The purpose of this committee is to ensure emergency response plans are updated and to implement portions of the federal Emergency Response and Community Right-to-Know law. Chapter 118-40 WAC requires that counties ensure LEPCs are carrying out their duties. One of their primary duties is to collect annual reports on the storage of large quantities of hazardous substances.

# Local Enforcement Program

Thurston County's Public Health and Social Services Department (PHSS) leads enforcement of local hazardous waste regulations for CESQGs and households. When appropriate, the County coordinates with the Department of Ecology on enforcement, inspections, and technical assistance related to medium and large quantity generators. The three main activities of the local enforcement program, described below, are as follows:

- Complaint response and enforcement
- Regulatory coordination
- Site investigation

## Current Enforcement Programs

## Complaint Response and Enforcement

Complaint response and enforcement remain an ongoing focus of Thurston County. Enforcement activities are initiated by complaints and by referrals from the Business Pollution Prevention program when technical assistance did not achieve compliance.

Complaints are filed through the Business Hazardous Waste Hotline as well as the Department of Ecology's Environmental Response Tracking System (ERTS). PHSS responds to complaints in both incorporated cities and unincorporated areas of the county. In 2012, Thurston County received 276 waste-related complaints and resolved 259 (94%) of them. Complaints that were reported as unresolved at the close of the reporting year may not have been finalized before the reporting deadline or may be going through additional compliance support or enforcement proceedings. Of the complaints received in 2012, 138 complaints (50%) were received through Thurston County's Solid Waste Enforcement Program; 100 complaints (36%) were received through Thurston County's Hazardous Waste Complaint Program; and 38 complaints (14%) were received through the Department of Ecology (and may relate to either solid or hazardous waste).

Technical assistance campaigns work with businesses to verify or move them into compliance with Article VI and hazardous waste regulations. When outreach and assistance alone are not sufficient, the County shifts to enforcement actions until businesses are brought into compliance.

## Regulatory Coordination

Thurston County coordinates regulatory enforcement responses with the Department of Ecology and other agencies and County departments. The goal of these efforts is to increase effectiveness, efficiency, and fairness of services through improved communication and coordination. One outgrowth of these efforts has been the streamlined environmental complaint process. The Department of Ecology's ERTS refers hazardous waste complaints to PHSS, enhancing response efforts for both agencies. In 2012, 38 of the 276 complaints (14%) that Public Health investigated were referred by ERTS. The County also coordinates with state agencies and law enforcement regarding the identification, investigation, assessment, and tracking of contaminated sites and illegal drug labs.

The Thurston County Resource Stewardship Department notifies PHSS about applications for new construction and land use permits, so that PHSS can review the intended site uses and address potential hazardous waste issues at new or relocating businesses. However, this coordination is informal and does not address new businesses that move into existing locations or business that change owners or regulatory status.

## Site Hazard Assessment

The County conducts site hazard assessments to provide the Department of Ecology with basic information about suspected sites. The County oversees small site cleanups conducted by the responsible parties while the Washington State Department of Ecology directs large spill cleanups and site remediation. Thurston County also inputs the information gathered into the Washington Ranking Method (WARM) to estimate the potential threat the site poses—if not cleaned up—to human health and the environment.

## Opportunities to Improve Regulations and Enforcement

Thurston County identified three main opportunities to improve local regulations and enforcement:

- An evaluation should be conducted of the need to amend Article VI of the Sanitary Code to allow the use of civil penalties as a second penalty tool. This revision would allow the County to retain collected penalties rather than losing them to the state and court system.
- The authority of the Sanitary Code to require cleanup of a contaminated site is limited and should be evaluated and clarified.
- While coordination has increased in recent years, opportunities remain to enhance regulatory coordination such as with wellhead protection programs, the Washington State Department of Health, NPDES programs in local cities, LOTT Clean Water Alliance, Olympic Region Clean Air Agency, fire service districts, the Local Emergency Planning Committee, and business licensing agencies.

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# Chapter D. Financing of the Program

## Contents



## Tables and Figures

# Current Revenue Sources

Thurston County's programs to address hazardous waste are funded primarily through:

- Tip fees collected at the Thurston County Waste and Recovery Center (WARC) for solid waste.
- Grants provided by the Department of Ecology including Coordinated Prevention Grants (CPG), Solid Waste Enforcement Grant and Remedial Action Grant for Site Hazard Assessments.

Some funding has also been provided through agreements with other departments in Thurston County and other government agencies for providing technical expertise. For example, Thurston County conducted pesticide reviews under a contract with Metro (Oregon); Thurston County residents benefited from this research through improvements to County-provided educational materials.

The tables below present the dollar amounts (Table D-1) and percentage shares (Table D-2) of funding by source for hazardous-waste-related activities by Thurston County's Public Health and Social Services and Public Works departments for 2009–2012.

**Table D-1. Dollars by Funding Source for Thurston County Spending on Hazardous Waste**

| Funding Source | 2009 | 2010 | 2011 | 2012 | Average |
|---|---|---|---|---|---|
| **Ecology Grants** | $355,462 | $311,320 | $131,419 | $345,757 | $285,989 |
| **Tip Fees (for HazoHouse)** | $479,028 | $393,000 | $434,533 | $345,015 | $412,894 |
| **Tip Fees (Other)** | $592,404 | $532,904 | $803,188 | $502,490 | $607,746 |
| **Other Sources** | $48,402 | $1,733 | $8,750 | $36,364 | $23,812 |
| **Total** | **$1,475,296** | **$1,238,957** | **$1,377,890** | **$1,229,626** | **$1,330,442** |

*Note: Capital costs for construction of HazoHouse ($2,117,866) in 2011 are not included in this table.*

**Table D-2. Percentage by Funding Source for Thurston County Spending on Hazardous Waste**

| Funding Source | 2009 | 2010 | 2011 | 2012 | Average |
|---|---|---|---|---|---|
| **Ecology Grants** | 24% | 25% | 10% | 28% | 21% |
| **Tip Fees (for HazoHouse)** | 32% | 32% | 32% | 28% | 31% |
| **Tip Fees (Other)** | 40% | 43% | 58% | 41% | 46% |
| **Other Sources** | 3% | 0% | 1% | 3% | 2% |
| **Total** | **100%** | **100%** | **100%** | **100%** | **100%** |

*Notes: Figures may not sum to 100 percent because they are rounded. Capital costs for construction of HazoHouse ($2,117,866) in 2011 are not included in this table.*

# Department of Ecology Grants

The Department of Ecology distributes Coordinated Prevention Grant (CPG) funding to local government entities for the planning and implementation of local hazardous waste management programs. The purpose of the CPG program is to protect "human health and the environment by reducing human

exposure to toxins, reducing waste, and ensuring proper management of solid and household hazardous waste." Coordinated Prevention Grants are a vital source of funding that helps support Thurston County's household and public education, technical assistance for small businesses, enforcement activities, used oil collection, and hazardous waste planning.

From 2009 to 2012, grants from the Department of Ecology provided an average of 21 percent of the County's total funding for hazardous waste management. In 2012, Thurston County received a Site Hazard Assessment Grant to support work to identify, assess, and clean up contaminated sites in Thurston County.

## Thurston County Tip Fees

Thurston County's Public Works Department collects tip fees for the disposal of household garbage, businesses garbage, and other solid waste at the Waste and Recovery Center. The department also collects fees from small businesses that dispose of hazardous waste at HazoHouse.

Tip fees fund all HazoHouse operations, which cost an average of nearly $415,000 per year from 2009 to 2012, or approximately 46 percent of total spending on hazardous waste. In 2011, Thurston County constructed a new HazoHouse costing $2,117,866; this capital expenditure is not included in operations costs.

Historically, PHSS has received approximately 5.5 percent of tip fee revenues received by the County to fund other hazardous waste management activities. From 2009 to 2012, PHSS received an average of more than $600,000 from tip fees for household and public education, WasteMobile operations, technical assistance for small businesses, enforcement activities, used oil collection, and hazardous waste planning. These tip-fee-funded activities accounted for an average of 31 percent of total spending.

Tip fees are vital for protecting Thurston County residents, workers, and natural resources through enforcement of local hazardous waste regulations, education on safe handling and disposal methods for hazardous waste, promotion of safer alternatives to reduce the use of hazardous substances, direct collection of hazardous waste, and County leadership and coordination.

# Alternative Revenue Options

Thurston County plans to conduct research on alternative funding sources that could support County hazardous waste activities, as described in the **Chapter I (Implementation Plan)**. An initial list of potential sources is presented below, organized by category.

## Potential Federal Sources

- Pre-disaster planning assistance grants from the Federal Emergency Management Agency.
- Environmental justice grants from EPA, which have funded projects such as hazardous waste disposal site cleanup and outreach to reduce the risk of hazardous chemical exposures in vulnerable populations.

## Potential State Sources

- Grants from state agencies working on related issues, such as the Department of Health (drinking water protection) or the Puget Sound Partnership (source control for stormwater pollution).
- Work with the legislature and Department of Ecology to establish parallel fines or fine-sharing from enforcement inspections that result in fines for non-compliance.
- Funding from the Department of Ecology if Thurston County joined the Local Source Control Partnership.

## Potential Local Sources

- A nominal fee for household customers to use HazoHouse and the WasteMobile, although the funding benefits must be weighed against potential reductions in proper disposal through County hazardous waste collection facilities.
- Addition of authority to levy fines in Thurston County's Article VI of the Sanitary Code (Nonpoint Source Pollution Ordinance) similar to its authority for solid waste violations in Article V.
- Development of an annual fee on businesses that use or generate hazardous waste.
- Contracts with public water suppliers for groundwater protection area inspections conducted by Thurston County on their behalf.
- Funds from Thurston County's Surface Water Utility fees for illicit discharge detection and elimination inspections and enforcement activities conducted on their behalf.
- Funding partnership with the local wastewater authority, LOTT Clean Water Alliance, to provide education and outreach intended to reduce disposal of hazardous waste in the wastewater system.

## Other Potential Sources

- Contracts to conduct research for or provide technical expertise to jurisdictions working on similar hazardous waste topics.
- Reduced costs through manufacturer-funded product stewardship organizations responsible for management of covered products; product stewardship programs for paint and other hazardous wastes are a current topic for legislation and debate in the Washington State Legislature.
- Payments from adjacent counties to accept hazardous materials from out-of-county residents using HazoHouse or WasteMobile collection services.
- Community education grants through private institutions.

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# Chapter E. Governance Structure and Legal Authority

## Contents



## Tables and Figures

*None*

As described in **Chapter C (Legal Authority and Enforcement)**, local governments were delegated the responsibility to prepare and carry out comprehensive management plans for small quantities of hazardous waste in the 1985 amendments to the Washington State Hazardous Waste Management Act.

Because of its expertise in hazardous waste management and regulations, the Thurston County Health Department facilitated the preparation of the County's original Hazardous Waste Management Plan in 1991 as well as the 1998 and 2013 updates. The 1991 plan recommended the Health Department, now renamed the Public Health and Social Services Department, lead the implementation of all programs, except the operation of the hazardous waste collection facility. The plan also recommended that the moderate risk waste facility be operated by the Thurston County Public Works Department.

# Lead Agency

The lead agency for implementing the 2014 Plan continues to be the Thurston County Department of Public Health and Social Services (PHSS).

When the first Hazardous Waste Management Plan was adopted in 1991, Thurston County, seven participating cities, and the planning committee all supported the Health Department as the lead agency because of the department's existing authority to carry out programs both within the cities and within the unincorporated areas of the county. The County and participating jurisdictions continue this arrangement because of the following benefits:

- Delegating responsibility for a small program to a single agency is efficient and cost-effective.
- PHSS retains other ongoing responsibilities that address community health protection, education, and enforcement related to solid waste.

The administrative responsibilities of the Public Health and Social Services and Public Works departments include annual planning, budget development, grant writing and administration, office support, financial accounting, drafting of policies and guidelines, selection of personnel, and securing and overseeing contracts. Other responsibilities of PHSS include coordination with participating jurisdictions, staff support to the Thurston County Board of Health and the Thurston County Solid Waste Advisory Committee, enforcement of Article VI of the Sanitary Code (Nonpoint Source Pollution Ordinance), coordination with stakeholder groups, educational program implementation, program evaluation, amending the Hazardous Waste Management Plan as needed, and coordination with the Washington State Department of Ecology.

# Solid Waste Advisory Committee

Thurston County Solid Waste Advisory Committee is the interjurisdictional advisory body for implementation of the Hazardous Waste Management Plan. The committee recommends annual budgets, work plans, amendments to the plan, provides recommendations on major policy issues. Comments and recommendations from the committee are presented to the Board of Health. The committee consists of up to 15 members appointed for three-year terms. Membership includes:

A. One County Commissioner;

B. One elected official or his or her duly appointed representative from each of the municipalities participating in the most current solid waste management plan through signed interlocal agreements;

C. One member from the Port commission;

D. One member representing private business;

E. One waste collection/hauling representative;

F. One recycling industry representative; and

G. Three citizen representatives, one each from the unincorporated jurisdiction of each commissioner district, to represent a balance of other interests including environmental, educational and the general public interests.

*(Ord. 10053 § 1, 1995: Ord. 9160 (part), 1989)*

# Interlocal Agreements with Local Jurisdictions

All seven cities in Thurston County have adopted interlocal agreements to support and participate in the Hazardous Waste Management Plan. The official adopting documents for the following jurisdictions are presented in Appendix 2:

- Thurston County
- Town of Bucoda
- City of Lacey
- City of Olympia
- City of Rainier
- City of Tenino
- City of Tumwater
- City of Yelm

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# Chapter F. Program Philosophy

## Contents



## Tables and Figures

# Mission

The mission of Thurston County is to make continuous improvement in services that sustain and enhance safe, healthy, diverse, and vital communities.

The mission of the Thurston County Public Health and Social Services Department is to make a positive, significant, and measurable difference in the environmental, physical and mental health, safety, and wellbeing of our community.

# Vision

The vision of Thurston County is "creating solutions for our future."

The vision of the Hazardous Waste Program is a future in which the environment and residents of Thurston County are free of health concerns stemming from hazardous material use, production, and disposal.

# Guiding Principles

The following principles guide the Thurston County's Hazardous Waste Program:

1. Protect public health, water resources, and the environment from use, storage, handling, transport, and disposal of hazardous materials.
2. Work upstream to reduce human and environmental exposure to hazardous materials and products and to reduce reliance on publicly funded services, such as through promoting producer responsibility and safer technologies.
3. Prevent the use of, exposure to, and contamination by hazardous materials and products, taking a precautionary approach.
4. Promote the use of management practices for hazardous substances and hazardous waste that cause the least health and environmental damage.
5. Follow the Washington State hazardous waste management hierarchy which, from highest to lowest priority, promotes the following hazardous waste management strategies:
    a. Waste prevention and source reduction.
    b. Reuse.
    c. Recycling.
    d. Physical, chemical, and biological treatment.
    e. Incineration.
    f. Solidification or stabilization treatment.
    g. Landfill disposal.

6. Be a regional leader on issues related to hazardous materials, including leading by example and promoting policies that protect public health and the environment from hazardous materials.
7. Encourage greater coordination among county departments, government agencies, businesses, and nongovernmental organizations to increase program efficiencies and effectiveness and to minimize gaps.
8. Ensure all county residents and businesses have equitable and convenient access to program services.
9. Improve efficiency and effectiveness of hazardous waste programs by measuring progress regularly and prioritizing services according to hazards, toxicity, exposure, and community needs.
10. Raise community awareness, foster an ethic of responsibility, and empower those who produce, sell, and use hazardous products to protect human health and the environment.
11. Secure stable funding, staffing, and other resources necessary to achieve the goals of the plan.

# Goals

**Table 1. Thurston County Hazardous Waste Management Plan Goals**

| Goal | HHW Collection | HH and Public Education | SQG Waste Collection | SQG Technical Assistance | Enforcement | Used Oil Collection | Leadership, Policy, & Administration |
|---|---|---|---|---|---|---|---|
| **1. Prevention, Safe Use, and Proper Storage** | | | | | | | |
| 1.1 Reduce County use of hazardous products and ensure all hazardous products that cannot be reduced are properly used, stored, and handled. | | ✓ | | ✓ | | | ✓ |
| 1.2 Encourage the use of alternatives to hazardous products by businesses and residents, including environmentally preferable purchasing. | | ✓ | | ✓ | | | ✓ |
| 1.3 Increase waste prevention, which conserves resources and reduces demand for disposal and recycling services. | | ✓ | | ✓ | | | ✓ |
| 1.4 Prevent poisoning and reduce acute (short-term) and chronic (long-term) exposure to hazardous chemicals at home and school. | | ✓ | | ✓ | | | |
| 1.5 Protect groundwater, surface water, soils, sediments, and public and private property from hazardous materials contamination. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1.6 Prevent and reduce the improper use and storage of hazardous materials so as to eliminate unnecessary risks to human and environmental health, including spills to the environment. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |

| Goal | HHW Collection | HH and Public Education | SQG Waste Collection | SQG Technical Assistance | Enforcement | Used Oil Collection | Leadership, Policy, & Administration |
|---|---|---|---|---|---|---|---|
| **2. Proper Disposal** | | | | | | | |
| 2.1 Increase the proper management of hazardous waste that cannot be prevented through source reduction. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 2.2 Increase the percentage of hazardous waste collected (that cannot be prevented through source reduction). | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 2.3 Reduce improper and illegal disposal of hazardous materials so as to reduce unnecessary risks to human health, the environment, public infrastructure and operations, and the County's compliance with discharge permits; risks can affect:<br>– Individuals and workers involved in hazardous waste, solid waste, sewage treatment, or firefighting.<br>– Collection and transfer vehicles, disposal equipment, or treatment facilities.<br>– Publicly owned facilities such as solid and hazardous waste handling facilities, landfills, wastewater treatment plants, on-site septic systems, and stormwater treatment facilities.<br>– Environment and water bodies that receive discharges from contaminated facilities. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |

| Goal | HHW Collection | HH and Public Education | SQG Waste Collection | SQG Technical Assistance | Enforcement | Used Oil Collection | Leadership, Policy, & Administration |
|---|---|---|---|---|---|---|---|
| **3. Enforcement, Compliance, and Clean Up** | | | | | | | |
| 3.1 Achieve 100% compliance in businesses safely managing chemicals that cannot be reduced. | | | ✓ | ✓ | ✓ | | |
| 3.2 Increase the rate of clean-up of contaminated sites under the jurisdiction of Thurston County (are too small for state or federal oversight.) | | | | ✓ | ✓ | | |
| 3.3 Maintain high compliance with the Nonpoint Source Pollution Ordinance. | | | | ✓ | ✓ | | ✓ |
| **4. Program Management and Administration** | | | | | | | |
| 4.1 Use a systematic approach to chemical policy and regulations, identify emerging threats, and work upstream including support for product stewardship and producer responsibility. | | ✓ | | ✓ | | | ✓ |
| 4.2 Manage hazardous materials in a cost-effective manner by:<br>– Using best practices, appropriate enforcement mechanisms, and educational tools for residents, businesses, and policymakers.<br>– Identifying priority focal areas to address the highest threats based on hazards, toxicity, and risk. | ✓ | | ✓ | ✓ | | | ✓ |
| 4.3 Continuously improve protection of public health and environmental quality through ongoing evaluation of the coverage and effectiveness of program services. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4.4 Identify and address changes in resident and business needs, behaviors, and obstacles to prevention, safe use and storage, and proper disposal. | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ |
| 4.5 Create partnerships among county departments and with government agencies, schools, businesses, and other organizations to better address hazardous materials. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

# Chapter G. Program Services

## Contents



## Tables

This section briefly describes the program services that Thurston County proposes to offer in the following six required elements and one optional element of the Hazardous Waste Management Plan:

1. Household hazardous waste collection
2. Household and public education
3. Small business technical assistance
4. Small business collection assistance
5. Enforcement
6. Used oil collection, recycling, and outreach
7. Leadership, policy, administration, and evaluation (*optional*)

Table G-1 lists the recommended program services from the 1998 plan as well as their current status. More detail on current program services can be found in **Chapter B** (**Analysis of Current Conditions**, for waste and oil collection, public education, and business technical assistance) and **Chapter E** (**Governance Structure and Legal Authority**, for enforcement). Following the table, the County's proposed services are described for each of the six elements required by the Department of Ecology, plus a seventh element covering policy, leadership, and program administration.

**Table G-1. Implementation of Plan Recommendations from the 1998 Hazardous Waste Plan**

| 1998 Plan Recommendations | Current Status |
|---|---|
| **Waste Collection** | |
| 1. Continue operating the hazardous waste facility (HazoHouse) for homeowners and small businesses. | Ongoing |
| 2. Continue operating the used oil collection site network. | Ongoing |
| 3. Continue to collect oil filters at transfer stations. | Ongoing |
| 4. Continue to develop and operate a waste exchange for usable household products such as paint, cleaning products, camping fuel, and other home maintenance products. | Swap Shop activities used on a limited basis. |
| 5. Assess collection needs of residents and recommend options for addressing unmet needs. | Not assessed countywide recently. |
| 6. Operate paint swaps at community cleanup events. | Discontinued |
| 7. Prepare an emergency disaster plan for collecting household hazardous waste during disasters. | Basic information in County's emergency preparedness plan; additional detail may be warranted |
| **Education** | |
| 8. Provide educational programs that lead to a reduction in use and waste and an increase in recycling, safe handling, and disposal for hazardous products. | Ongoing |
| 9. Operate an information line about household hazardous waste recycling, disposal, and alternatives. | Ongoing |

| 1998 Plan Recommendations | Current Status |
|---|---|
| 10. Conduct multimedia campaigns regarding hazardous substance reduction, recycling, disposal, and safety. | Ongoing |
| **Small Business Technical Assistance** | |
| 11. Provide assistance to small businesses through the Business Hazardous Waste Line. | Ongoing |
| 12. Continue technical assistance and compliance campaigns. | Ongoing |
| 13. Continue to operate a small business hazardous waste collection service for eligible businesses (HazoHouse). | Ongoing |
| 14. Provide an annual inspection program for wellhead protection areas. | Ongoing—risk-based inspections |
| 15. Provide permit review services to all jurisdictions for the review of new building or commercial permits that include use, storage, or disposal of hazardous materials. | Ongoing |
| **Enforcement** | |
| 16. Respond to reports of hazardous waste violations under the authority of the Nonpoint Source Pollution Ordinance (Article VI). | Ongoing |
| 17. Improve regulatory coordination with other local and state agencies in hazardous waste or hazardous materials enforcement. | Ongoing |
| 18. Evaluate and document effectiveness of programs. | Ongoing |

# Household Hazardous Waste Collection

## Current Services to Continue

### HHWC-1. HazoHouse

The Public Works Department will continue operating the existing hazardous waste collection facility (HazoHouse) for residents. Located at the Thurston County Waste and Recovery Center (WARC), HazoHouse accepts unwanted, outdated, or mixed household hazardous waste five days a week from residents for free. Wastes that are contaminated mixtures, cannot be practically reused or recycled on-site, or are too dangerous to be safely reused are processed, stored, and transported off-site by a licensed waste hauler. When possible, these wastes are refined or recycled, burned for energy, or neutralized. The remaining materials are incinerated or disposed of in hazardous waste landfills. The list of materials currently accepted by HazoHouse is listed in Appendix 9.

## HHWC-2. WasteMobile

Thurston County will continue operating at least one mobile collection events (WasteMobile) for residents per year, located conveniently for residents who have less convenient access to HazoHouse. Collection events are posted on the WasteMobile website so residents may plan in advance to drop off eligible household hazardous wastes. The total number of event-days has ranged from one to two. Event locations, based on the 1999 needs assessment, are selected to serve rural residents who live more than 12 miles from HazoHouse.

## HHWC-3. Medicine Return Program

Thurston County will continue facilitating collection of medicines, including controlled substances, from residents in partnership with law enforcement. The County will also work to expand the number of collection sites.

The County supports a program operated by local law enforcement agencies to provide residents a safe method for disposing of unwanted prescription medicines, including controlled substances. The Medicine Return Program is an innovative example of interagency cooperation to solve a complex problem. The County coordinates and promotes the program, while law enforcement agencies provide secure drop-off locations and disposal.

The County has partnered with six agencies including the Thurston County Sheriff's Office, Thurston County Coroner, Lacey Police Department, Rainier City Hall, Tenino Police Department, Tumwater Police Department, and Yelm Police Department.

# Previous Service to Resume

## HHWC-4. Swap Shop

The Public Works Department will resume operating a household hazardous product materials exchange (Swap Shop) at HazoHouse.

The Swap Shop at HazoHouse was created in 1999 to divert reusable household products from unnecessary disposal; however, it has been less active in recent years. Thurston County will resume operating the Swap Shop at all times that HazoHouse is open to the public. Household products such as paint and household cleaners delivered to HazoHouse or the WasteMobile in reusable quantities will be placed in the Swap Shop for HazoHouse patrons to browse through and take home. Aerosols, pesticides, methamphetamine ingredients, and other dangerous wastes will not be reused through the Swap Shop. In addition, the Swap Shop will provide an opportunity to distribute an array of educational materials published by the County, with topics ranging from less-toxic alternatives for household cleaning to disposal options for latex paints.

## New Services to Begin

### HHWC-5. Syringe Collection and Disposal Program

At the end of 2013, the County is expected to begin a collection and disposal program for syringes using unstaffed sharps collection boxes in three to five locations. These initial locations are anticipated to include the Public Health and Social Services Department building, the Thurston County Courthouse facility, and at least one location in downtown Olympia. Over time and as funding allows, the County will work to expand number of collection sites as needed. Thurston County will arrange for emptying of the collection containers and proper disposal of contents, ideally in partnership with local host jurisdictions.

### HHWC-6. Reassessment of Resident Collection Needs

The County will assess equity in and barriers to resident participation in waste collection services and will develop a prioritized list of recommendations to increase equity and reduce barriers. This planning effort should examine service equity based on resident demographics and home location; trends in disposal by audience type and over time to identify potential gaps in services or awareness, and potential barriers to using County-provided collection services.

### HHWC-7. Program Revisions to Address Resident Needs

PHSS and the Public Works Department will implement high-priority recommendations identified during the reassessment of resident collection needs (HHWC-5) to increase equity in and reduce barriers to resident participation in HHW collection services.

# Household and Public Education

## Current Services to Continue

Used oil management is discussed in the Used Oil Collection, Recycling, and Outreach section on page 9.

### HPE-1. Toxics Reduction Education and Outreach

The County will continue to deliver household hazardous materials education programs designed to increase awareness and to reduce use, misuse, improper storage and disposal, and risks to human health and the environment related to hazardous products. Each year, the County will prioritize specific topics, audiences, and education methods according to hazards, community needs, and outreach effectiveness. The County will seek to deliver education efficiently by coordinating among County programs (such as between the Hazardous Waste Program and Solid Waste Program) and with outside related agencies and non-profit organizations where appropriate.

Examples include presentations in schools regarding the hazards of common household and personal care products; publications and communications strategies about toxics reduction, safer handling, and proper disposal; and publications and retail partnerships to promote Integrated Pest Management techniques and paint waste reduction to residents.

### HPE-2. Environmental Health Hotline

The County will continue to operate a hotline for residents to provide information about environmental health, including hazardous materials prevention, use, storage, disposal, and clean-up. PHSS staff members answer questions during normal business hours on weekdays.

## New Services to Begin

### HPE-3. Reassessment of Resident Education Needs

The County will assess equity; resident needs, knowledge, and barriers; and effective outreach methods related to hazardous materials education. Based on this assessment, the County will develop a prioritized list of recommendations to increase equity and improve programs aimed at changing resident knowledge, attitudes, and behaviors about hazardous materials. This planning effort will examine equity in program delivery, priorities for topics and audiences, and effective outreach, behavior change, and education methods.

### HPE-4. Program Revisions to Address Resident Needs

The County will implement high-priority recommendations identified in the reassessment of resident education needs (HPE-3) to increase equity in education delivery and improve the design and implementation of hazardous waste education services.

# Small Business Technical Assistance

## Current Services to Continue

### SBTA-1. Business Pollution Prevention Program

The County will continue to deliver technical assistance services, such as campaigns for single-industry groups or geographic areas, that result in measurable changes in waste management, compliance, and implementation of best management practices. The Business Pollution Prevention (BPP) program provides written educational materials, free on-site consultations, and technical assistance to attempt to resolve alleged hazardous waste violations voluntarily. The County will seek to deliver technical

assistance efficiently by coordinating among County programs (such as between the Hazardous Waste Program and Solid Waste Program) and with outside related agencies and non-profit organizations where appropriate.

## SBTA-2. Inventory and Inspection of Businesses in Wellhead Protection Areas

The County will continue to help public water systems meet their requirements to inventory and inspect potential wellhead contaminant sources. Owners of water systems in wellhead protection areas are required to conduct an inventory of potential contaminant sources, including businesses that use or store hazardous waste, every two years. PHSS has assisted water system owners by developing lists of businesses that may require notification and by inspecting and providing technical assistance to high-priority businesses (as determined by a ranking matrix).

## SBTA-3. Business Hazardous Waste Information Line

The County will continue to operate an information hotline for businesses to provide information on toxics reduction, hazardous waste management, compliance, and best management practices. PHSS staff members answer questions during normal business hours on weekdays.

## SBTA-4. Integrated Pest Management and Pesticide Reduction Projects

The County will continue to promote integrated pest management (IPM) techniques to reduce the need for toxic chemicals in pest and vegetation management by county agencies, businesses, and the general public. PHSS will continue to review active ingredients in pesticides and landscaping chemicals, work with County departments and local businesses to develop IPM prescriptions for safer methods to control pests and problem weeds, and promote the use of safer control methods.

# New Services to Begin

## SBTA-5. Assessment of Methods to Identify New Businesses

The County will assess methods for identifying new businesses that generate hazardous waste or change ownership.

# Small Business Collection Assistance

## Current Services to Continue

### SBCA-1. Small Quantity Generator Businesses Waste Collection

The Public Works Department will continue accepting business hazardous waste from conditionally exempt small quantity generators (CESQG) for a fee at the existing hazardous waste collection facility (HazoHouse). As feasible, PHSS will continue collecting waste at satellite locations, such as marinas.

## New Services to Begin

### SBCA-2. Reassessment of Small Business Collection Needs

The County will assess equity in and barriers to CESQG business participation in waste collection services and will develop a prioritized list of recommendations to increase equity and ensure CESQG businesses properly dispose of waste.

This planning effort should examine the estimated number of CESQG businesses in Thurston County, service based on customer demographics and business location, trends in CESQG waste generation and disposal to identify potential gaps in services or awareness of options and requirements, and potential barriers to proper disposal.

### SBCA-3. Program Revisions to Address Small Business Collection Needs

The Public Works Department and PHSS will implement high-priority recommendations identified to increase equity and ensure CESQG businesses properly dispose of waste.

# Enforcement

## Current Services to Continue

### E-1. Inspections, Permitting, Complaint Response, and Enforcement

The County will continue to permit and inspect HazoHouse as a moderate risk waste (MRW) facility and to conduct enforcement activities and inspections under the authority of the Nonpoint Source Pollution Ordinance (Article VI) and Solid Waste Handling Ordinance (Article V). The County will also continue to respond to hazardous- and solid-waste-related complaints. Enforcement activities are initiated by complaints filed through the County's Hazardous Waste Hotline, notifications from the Department of Ecology's Environmental Response Tracking System (ERTS), and referrals from the Business Pollution Prevention Program (when technical assistance did not achieve compliance).

### E-2. Regulatory Coordination

PHSS will continue to coordinate with the Department of Ecology, the Thurston County Resource Stewardship Department, other County departments, and other agencies involved in hazardous materials regulations.

### E-3. Site Hazard Assessment

The County will continue to conduct site hazard assessments to provide the Department of Ecology with basic information about suspected sites. The County will also continue to oversee small site cleanups conducted by the responsible parties, referring large spills and sites that require remediation to the Washington State Department of Ecology.

# Used Oil Collection, Recycling, and Outreach

## Current Services to Continue

### UOCRO-1. Used Oil Collection Sites

The County will continue to operate the public used oil collection site network and promote the private network of local retail businesses that collect used motor oil. The County-managed network currently contains seven publically owned or managed sites; oil from these sites is re-refined.

### UOCRO-2. Oil Filter and Antifreeze Collection

The County will continue to collect oil filters and antifreeze through the public used oil collection site network and to encourage collection at private retail sites.

## Hazardous Waste Leadership, Policy, Administration, and Evaluation

In addition to the comprehensive hazardous waste management activities discussed above, Thurston County is a leader in waste reduction and stewardship activities. Current activities that support the goal of reducing human exposure to toxic substances, reducing the use of hazardous materials and generation of hazardous waste, and ensuring proper disposal of hazardous wastes are as follows:

## Current Services to Continue

### LPAE-1. Thurston County Government Operations

The County will continue activities to reduce its own use of hazardous products and to ensure safe use, storage, and disposal. Activities include Integrated Pest Management (IPM) research and implementation and Environmentally Preferable Purchasing (EPP), as described in the Thurston County Sustainability Policy.

### LPAE-2. Product Stewardship Support

The County will continue its involvement in the Northwest Product Stewardship Council (NWPSC) to further policies and programs that reduce the toxicity of products in the marketplace and the impacts of wastes on the County.

### LPAE-3. Required Reporting

The County will continue to complete reports to meet requirements of the Department of Ecology, Department of Health, and other agencies that fund, regulate, or oversee the County's hazardous waste activities. Examples include Coordinated Prevention Grant reports and Moderate Risk Waste Facility reports.

### LPAE-4. In-Depth Program Evaluation

The County will continue to develop and conduct evaluation activities that supplement reporting requirements by assessing outcomes and implementation effectiveness in more depth. Evaluation

reports typically address target audience characteristics, program outcomes, program effectiveness, lessons learned, and recommendations to apply to future activities. The County will develop and implement recommendations to improve outcomes and program effectiveness.

## LPAE-5. Assessment of Alternative Funding Sources

The County will assess potential funding sources for hazardous waste activities in general and for specific programs (such as HazoHouse or wellhead assessments). The assessment will include a prioritized list of recommendations for new funding sources.

## LPAE-6. Hazardous Waste Management Plan Updates

The County will update the Hazardous Waste Management Plan through amendments or revisions as needed during 2014–2018 planning period to adjust to changing circumstances and new information.

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# Chapter H. Process for Updating the Plan

## Contents



## Tables and Figures

*None*

Assuming that the organization, policies, and programs of the Public Health and Social Services (PHSS) Department and Public Works Department do not change dramatically, the Hazardous Waste Management Plan should be reviewed again for revision in approximately 5 years (2018). The Implementation Section of the Plan will be reviewed annually when PHSS develops its annual work plan and budget.

The County can update the Plan in one of two ways:

- **Amendments for minor changes** such as:
  - A change in a timeline, or a delay or advance of a milestone.
  - An interim program to provide equivalent service while a program is delayed, such as continuation of collection events until a fixed facility can open.
  - Changes in the scope of a program, such as a total of two oil facilities instead of ten.
  - Reassignment of a project (not a complete program) to a new agency with agreement of both the rescinding and receiving agency, such as a feasibility study/pilot project or the publicity task for a collection event or facility.
  - Follow-up actions to implementation activities, such as recommendations of a feasibility study/pilot project—for example, the construction of a fixed facility in a particular location following completion of a feasibility study to select a site.
  - Ongoing updates to the Plan, short of completely revising it.
- **Revisions for major changes** such as:
  - A planned update after the 5-year planning period has expired, if major changes are needed.
  - A change that increases the cost to participating jurisdictions to support the Implementation Section of the Plan due to proposed increased services or new programs.
  - A major shift in the level of service of a program, such as replacing collection events with a permanent facility.
  - The initiation of a program without a clear direction in the Plan.

# Amendment Process

If the need for minor changes arises, these amendments should be submitted to PHSS, reviewed by the Thurston County Solid Waste Advisory Committee (which includes representatives from all seven participating cities), and forwarded for consideration to the Board of County Commissioners. If these bodies determine that public input on the amendment is appropriate, the proposed changes will be submitted for formal review by the public and participating jurisdictions. The Board of County Commissioners is responsible for adopting amendments. Amendments will be submitted to the Department of Ecology within 45 days of adoption.

# Revision Process

A more extensive revision process will be used for larger changes and for the regular Plan update conducted approximately every five years. As feasible, the Plan update will coincide with the update of the County's Solid Waste Comprehensive Plan. The revision process will allow participating jurisdictions, citizens, and businesses the opportunity to provide ideas to improve protection of human health and the environment; meet changing local priorities and address emerging hazardous substance issues, and improve the quality of County hazardous waste management services.

At a minimum, the revision process must include:

- A public involvement strategy that actively includes interested parties to participate in planning process from the beginning. Interested parties must include jurisdictions participating in the current Plan and Thurston County's Solid Waste Advisory Committee. Strategy elements may include issuing media releases, conducting public presentations, attending community meetings, appearing on local radio and television shows, and paid advertising.
- Preparation of a draft document that meets the Department of Ecology's current Hazardous Waste Management Plan Guidelines.
- Public review of the draft document, including a public notice published in the Thurston County newspaper of record and a copy of the draft document available electronically on the County's website and physically in a convenient public location.
- State Environmental Policy Act review or determination of non-significance.
- Resolutions of adoption by the Thurston County Board of County Commissioners and by each participating jurisdiction.
- Submission to and approval by the Department of Ecology.

# Participating Jurisdictions

If jurisdictions do not concur on amendments to the Plan, each jurisdiction retains the ability to implement a separate, Ecology-approved program and proceed independently. Any jurisdiction may add program activities within its own area. For example, one city may wish to host and fund a hazardous waste collection day not identified in the Plan.

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# Chapter I. Implementation Plan

## Contents



## Tables and Figures

This chapter presents the implementation plan which describes programs to help Thurston County achieve the goals of the County's Hazardous Waste Management Plan for the planning period of 2014–2018. Programs address six required elements and one optional element:

- Household Hazardous Waste Collection (HHWC)
- Household and Public Education (HPE)
- Small Business Technical Assistance (SBTA)
- Small Business Collection Assistance (SBCA)
- Enforcement (E)
- Used Oil Recycling (UOCRO)
- Leadership, Policy, Administration, and Evaluation (LPAE)

Proposed programs for each element are designed to address gaps, needs, and goals identified in the earlier chapters of this plan. **Core programs** have been selected for implementation during the planning timeframe based on current priorities and available budget based on the following criteria:

- Consistency with Hazardous Waste Management Plan goals
- Public health and environmental benefits
- Cost-effectiveness
- Implementation feasibility

Table 1 on page 3 lists the core programs that Thurston County commits to conducting during the planning period, unless circumstances require the County to amend or revise the Plan.

This plan also describes **alternative options** that would be reasonable additional programs for Thurston County to pursue but for which funding is not available at this time. Should funding become available in the future, these programs could be implemented during this planning period. Programs will be updated as circumstances change or in response to new information or technologies. The lead agency responsible for coordinating plan implementation is the Environmental Health Division of the Thurston County Public Health & Social Services Department.

### How this chapter is structured

Following the summary of core programs that Thurston County will implement, this implementation plan presents the **objectives**, **core programs**, and **alternative options** for each element.

Additional detail is provided about each core program including:

- Actions that Thurston County will take
- Potential metrics to measure program outcomes
- Program timeframe
- Lead implementing agency
- Estimated cost and FTE to implement the program
- Anticipated funding sources

Where appropriate, such as for education and technical assistance programs, additional information is provided about anticipated methods and topic areas.

A table on page 32 summarizes the anticipated costs and schedule to implement core programs.

**Table 1. Core Programs for 2014–2018**

| Core Program | Status |
|---|---|
| **Household Hazardous Waste Collection** | |
| HHWC-1. HazoHouse | Current |
| HHWC-2. Wastemobile | Current |
| HHWC-3. Medicine Return Program | Current |
| HHWC-4. Swap Shop | Resuming |
| HHWC-5. Syringe Collection and Disposal | New |
| HHWC-6. Reassessment of Resident Collection Needs | New |
| HHWC-7. Program Revisions to Address Resident Collection Needs | New |
| **Household and Public Education** | |
| HPE-1. Toxics Reduction Education and Outreach | Current |
| HPE-2. Thurston County Environmental Health Information Line | Current |
| HPE-3. Reassessment of Resident and Education Needs | New |
| HPE-4. Program Revisions to Address Resident Education Needs | New |
| **Small Business Technical Assistance** | |
| SBTA-1. Business Pollution Prevention Program | Current |
| SBTA-2. Inventory and Inspection of Businesses in Wellhead Protection Areas | Current |
| SBTA-3. Business Hazardous Waste Information Line | Current |
| SBTA-4. Integrated Pest Management and Pesticide Reduction Projects | Current |
| SBTA-5. Assessment of Methods to Identify New Businesses | New |
| **Small Business Collection Assistance** | |
| SBCA-1. Small Quantity Generator Business Waste Collection (HazoHouse) | Current |
| SBCA-2. Reassessment of Small Business Collection Needs | New |
| SBCA-3. Program Revisions to Address Small Business Collection Needs | New |
| **Enforcement** | |
| E-1. Inspections, Permitting, Complaint Response, and Enforcement | Current |
| E-2. Regulatory Coordination | Current |
| E-3. Site Hazard Assessment | Current |
| **Used Oil Recycling** | |
| UOCRO-1. Used Oil Collection Sites | Current |
| UOCRO-2. Oil Filter and Antifreeze Collection | Current |
| **Leadership, Policy, Administration, and Evaluation** | |
| LPAE-1. Thurston County Government Operations | Current |
| LPAE-2. Product Stewardship Support | Current |
| LPAE-3. Required Reporting | Current |
| LBAE-4. In-Depth Program Evaluation | Current |
| LPAE-5. Assessment of Alternative Funding Sources | New |
| LPAE-6. Hazardous Waste Management Plan Updates | Renewing |

# Household Hazardous Waste Collection (HHWC)

**Element objective: Provide or facilitate convenient collection services for household hazardous waste and key special wastes that meet the needs of residents.**

## Core Programs

Thurston County will implement the seven following core programs to address household hazardous waste collection:

**HHWC-1. HazoHouse**

**HHWC-2. Wastemobile**

**HHWC-3. Medicine Return Program**

**HHWC-4. Swap Shop**

**HHWC-5. Syringe Collection and Disposal Program**

**HHWC-6. Reassessment of Resident Collection Needs**

**HHWC-7. Program Revisions to Address Resident Collection Needs**

## HHWC-1. HazoHouse (Current)

| Action | Continue operating the existing hazardous waste collection facility (HazoHouse) for residents. |
|---|---|
| **Potential Metrics** | ■ Number of residential customers and participation rate per capita, per household (see next section)<br>■ Quantity of HHW collected, in tons and as a percentage of estimated total generation<br>■ Quantity of hazardous waste remaining in municipal solid waste<br>■ Service equity measured by customer demographics, such as zip code and primary language |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Works Department |
| **Estimated Cost and FTE** | $350,000 to $400,000 per year \| 2.0 FTE (from Public Works budget) |
| **Funding Source(s)** | Current: Tipping fees |

## HHWC-2. WasteMobile (Current)

| Action | Continue operating at least two mobile collection events (WasteMobile) for residents per year, located conveniently for residents who have less access to HazoHouse. |
|---|---|
| **Potential Metrics** | ■ Number and location of events<br>■ Number of residential customers and participation rate per capita or per household<br>■ Quantity of HHW collected, in tons and per capita<br>■ Quantity of hazardous waste remaining in municipal solid waste<br>■ Service equity measured by customer demographics, such as zip code and primary language |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Approximately $25,000 to $30,000 for two one-day events<br>Approximately 200 staff-hours for two one-day events |
| **Funding Source(s)** | Current: Tipping fees |

## HHWC-3. Medicine Return Program (Current)

| Action | Continue facilitating collection of medicines, including controlled substances, from residents in partnership with law enforcement. Work to expand number of collection sites. |
|---|---|
| **Potential Metrics** | ■ Number of collection sites and partnering agencies<br>■ Quantity of unwanted prescriptions collected in Thurston County |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Local law enforcement agencies, facilitated by Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | This established program requires minimal funding from PHSS (only to recruit new sites and deliver new collection boxes as needed) |
| **Funding Source(s)** | Current: Law enforcement agency budgets for most collection and disposal activities; Tipping fees and Coordinated Prevention Grants for recruitment and delivery of new collection boxes |

If an alternative collection program for medicine becomes available to Thurston County residents (such as a statewide, nationwide, or producer-funded program), funding for this action may be shifted to the development of a collection or take-back program for other specific moderate risk or special waste materials.

## HHWC-4. Swap Shop (Resuming)

| Action | Resume operating a household hazardous product materials exchange (Swap Shop) at the HazoHouse. |
|---|---|
| **Potential Metrics** | ■ Number of residential customers<br>■ Quantity of MRW reused (avoided disposal and new purchase)<br>■ Service equity measured by customer demographics, such as zip code and primary language |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Works Department |
| **Estimated Cost and FTE** | Costs are minimal and included in estimate for HHWC-1 |
| **Funding Source(s)** | Previous: Tipping Fees |

## HHWC-5. Syringe Collection and Disposal Program (New)

| Action | Operate a collection and disposal program for syringes using sharps collection boxes in key locations, in partnership with local jurisdictions. Over time and as funding allows, work to expand number of collection sites as needed. |
|---|---|
| **Potential Metrics** | ■ Number of collection sites and partnering agencies<br>■ Quantity of syringes collected in Thurston County |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Approximately $10,000–$15,000 per year for five boxes and approximately $30,000 for ten boxes \| 100 to 175 staff hours for five boxes, depending on locations and collection frequency |
| **Funding Source(s)** | Potential: Tipping fees and Coordinated Prevention Grants |

## HHWC-6. Reassessment of Resident Collection Needs (New)

| Action | Assess equity in and barriers to resident participation in waste collection services; develop prioritized list of recommendations to increase equity and reduce barriers. |
|---|---|
| **Potential Metrics** | ■ Assessment conducted and recommendations identified |
| **Timeframe** | 2016 and as needed |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Cost depends on level of detail: $5,000 to $50,000 \| 50 to 500 hours |
| **Funding Source(s)** | Potential: Tipping fees and Coordinated Prevention Grants |

This planning effort should examine:

- Service equity as measured by comparing the demographics of customers to the demographics of overall residents for attributes such as zip code, languages spoken, race and ethnicity, income, residence type, and ability to reach collection sites.
- Trends in household hazardous waste disposal methods, by audience type and over time, to identify potential gaps in services or in awareness of options and existing services.
- Potential barriers such as:
  - Distance residents are willing to travel to recycle used oil or safely dispose of household hazardous waste.
  - Lack of ability to reach collection sites (such as among residents who are homebound or have no access to a private vehicle).
  - Awareness of and attitudes regarding proper disposal and existing disposal options among the general population, major cultural groups, and multifamily residents.
  - Communication preferences regarding language used and delivery media.
  - Days, hours, and frequency of HazoHouse and WasteMobile operations.

## HHWC-7. Program Revisions to Address Resident Needs (New)

| Action | Implement high-priority recommendations identified to increase equity in and reduce barriers to resident participation in the waste collection services. |
|---|---|
| **Potential Metrics** | ■ Changes in number of residential customers<br>■ Changes in service equity measured by customer demographics, such as zip code and primary language |
| **Timeframe** | Ongoing after assessment (2017–2018) |
| **Implementing Agency** | Thurston County Public Health & Social Services Department and Public Works Department |
| **Estimated Cost and FTE** | Costs depend on revisions needed |
| **Funding Source(s)** | Potential: Tipping fees, Coordinated Prevention Grants, other sources |

# Alternative Options

As funding becomes available, Thurston County will consider implementing the following programs to address household hazardous waste collection.

- Implement other recommendations identified to increase equity in and reduce barriers to resident participation in the waste collection services. Recommendations may include:
  - Increased service levels or adjustments to the mix of collection services, such as:
    - Expanded or shifted HazoHouse hours and days.
    - Increased number of WasteMobile events.
    - Development of a new fixed or satellite collection facility.
    - Development of door-to-door collection services for homebound residents.
  - Piloting outreach about proper disposal and disposal options specifically for:
    - Limited-English-speaking, low-income, and other difficult-to-reach communities.
    - Multifamily residents.
- Assess future regional HHW collection needs; develop and implement recommendations to address emerging needs, such as:
  - Changes in population and resident characteristics.
  - Needs for modifying the types of materials collected by the County.
  - Need for facilitating collection programs for additional hazardous or special waste products, similar to the Medicine Return Campaign.
- Add collection services for other materials that are difficult to dispose.
- Participate as a collector in national or state product stewardship programs, such as:
  - Washington State Light-cycle Washington stewardship program for mercury-containing fluorescent lamps, including compact fluorescent lamps (CFLs) and tubes to lessen management impact on the County.
  - Existing or future programs that may emerge for products such as pharmaceuticals, paint, pesticides, electronics, or other household hazardous products and materials to lessen management impact on the County.
- Review and update the County's emergency preparedness plan to describe formally and in more detail policies, procedures, and operations for:
  - Assessing potential public health problems associated with disasters and hazardous waste.
  - Collecting and managing hazardous waste during and after disasters.
  - Funding emergency response services.
  - Responding to non-disaster-related emergencies and incidents of contamination.
- Coordinate with or provide collection services on behalf of neighboring counties.
- Update Article V to clarify the prohibition on disposing of hazardous waste in the solid waste stream; this change will better emphasize to residents and businesses that hazardous materials require proper disposal.

# Household and Public Education (HPE)

**Element objective: Educate and motivate residents to:**

- **Understand the environmental and human health risks posed by hazardous products.**
- **Reduce purchase and use of hazardous products.**
- **Properly use, store, and dispose of hazardous products.**

## Core Programs

Thurston County will implement the four following core programs to address household and public education about hazardous waste:

**HPE-1. Toxics Reduction Education and Outreach**

**HPE-2. Thurston County Environmental Health Information Line**

**HPE-3. Reassessment of Resident and Education Needs**

**HPE-4. Program Revisions to Address Resident Education Needs**

## HPE-1. Toxics Reduction Education and Outreach (Current)

| **Action** | **Continue delivery of household hazardous materials education programs designed to increase awareness and to reduce use, misuse, improper storage and disposal, and risks to human health and the environment related to hazardous products.** Specific topics, audiences, and education methods will change over time. |
|---|---|
| **Potential Metrics** | ■ Project activity metrics (such as number of people reached)<br>■ As feasible, measured changes in participant or resident knowledge, attitudes, and behaviors<br>■ As feasible, measured changes in hazardous product purchases and household hazardous waste generation and proper disposal |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | $200,000 to $400,000 \| 1.5 to 3.0 FTE |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

In 2012, the public education program focused on schools presentations about the hazards of common household and personal care products; presentations and booths at community events to reach families with young children; publications and communications strategies about toxics reduction, safer handling, and proper disposal; on-site assessments in homes and childcare facilities that included a toxics reduction component; and publications and retail partnerships to promote Integrated Pest Management techniques and paint waste reduction to residents.

Thurston County will prioritize specific topics, audiences, and education methods according to hazards, community needs, and outreach effectiveness. Examples of topics, audiences, and methods include but are not limited to:

| Topic examples | Audience examples | Method examples |
|---|---|---|
| ■ Automotive leaks and fluids<br>■ Common Sense Gardening<br>■ Hazards of and alternatives to manufactured cleaners<br>■ Healthy hobbies<br>■ Healthy home remodeling<br>■ Keeping kids safe<br>■ Medicines and home medical waste<br>■ Personal care products<br>■ Product stewardship<br>■ Protecting water resources<br>■ Reading hazard labels and selecting safer alternatives<br>■ Safe storage and disposal | ■ Culturally and linguistically diverse groups<br>■ Families with children<br>■ Groups underusing County HHW disposal sites<br>■ Home gardeners<br>■ Home mechanics<br>■ Low-income families<br>■ People living in wellhead protection areas<br>■ People who are moving or helping others move<br>■ People who are remodeling<br>■ People with limited mobility<br>■ Teens and children | ■ Community-based social marketing techniques<br>■ Direct mail and other printed materials<br>■ Door-to-door canvassing<br>■ Multimedia communications<br>■ Online and social media<br>■ Partnerships with retailers<br>■ Partnerships with trusted community advocates<br>■ Point-of-purchase education<br>■ Public presentations and booths at community events<br>■ School classes and presentations |

## HPE-2. Thurston County Environmental Health Information Hotline (Current)

| Action | Continue to operate a hotline for residents to provide information about environmental health, including hazardous materials prevention, use, storage, disposal, and clean-up. |
|---|---|
| **Potential Metrics** | ■ Number and topics of calls to Environmental Health Information Line |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Costs included in estimate for HPE-1 |
| **Funding Source(s)** | Current: Tipping Fees and Coordinated Prevention Grants |

## HPE-3. Reassessment of Resident Education Needs (New)

| Action | Assess equity, resident needs, and effective outreach methods related to hazardous waste education; develop prioritized list of recommendations to increase equity and improve programs aimed at changing resident knowledge, attitudes, and behaviors about hazardous waste. |
|---|---|
| **Potential Metrics** | ■ Assessment conducted and recommendations identified |
| **Timeframe** | 2016 and as needed |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Cost depends on level of detail: $5,000 to $50,000 \| 50 to 500 hours |
| **Funding Source(s)** | Potential: Tipping fees and Coordinated Prevention Grants |

Resident characteristics and needs change regularly; this planning effort should examine:

- Equity in program delivery for hard-to-reach and potentially underserved populations by identifying and assessing program delivery to these audiences, such as residents who are:
  - Culturally or linguistically diverse.
  - Low income.
  - Not reached by the County's current outreach and communication channels.
  - Disproportionately vulnerable to risks from hazardous materials.
- Key topic areas and target audiences by assessing:
  - The priority order of materials and topics based on hazards, toxicity, exposure, and opportunities to reduce risk.
  - Residents' current knowledge, attitudes, behaviors, and barriers related to the reduction, purchase, use, storage, and disposal of hazardous waste.
  - Existing education programs available to Thurston County residents.
- Effective outreach and education methods for reaching and changing knowledge, attitudes, and behaviors in target audiences and underserved populations.

## HPE-4. Program Revisions to Address Resident Needs (New)

| Action | Implement high-priority recommendations identified to increase equity in education delivery and improve the design and implementation of hazardous waste education services. |
|---|---|
| **Potential Metrics** | ■ Changes in equity of education delivery<br>■ Changes in resident knowledge, attitudes and behaviors<br>■ Changes in program cost effectiveness |
| **Timeframe** | Ongoing after assessment (2017–2018) |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Costs depend on revisions needed |
| **Funding Source(s)** | Potential: Tipping fees, Coordinated Prevention Grants, other sources |

# Alternative Options

As funding becomes available, Thurston County will consider implementing the following programs to address household and public education to reduce the environmental and human health risks posed by hazardous products.

- Identify and implement effective ways to connect hazardous materials education to related environmental, health, and resource concerns, such as restoring Puget Sound, protecting indoor air quality, protecting drinking water, preventing chronic disease, and broader community health improvement. Potential options for consideration include but are not limited to:
  - Expanding coordination with Thurston County's Solid Waste Program on public education where coordination will increase efficiency.
  - Establishing a partnership with "Puget Sound Starts Here" campaigns related to hazardous materials, such as vehicle fluid leaks.
  - Partnering with indoor air quality organizations to expand the Healthy Homes campaign.
  - Partnering with water purveyors, the Washington State Department of Ecology, the Washington State Department of Health or other appropriate organizations to provide public education on groundwater protection and septic/wastewater systems.
  - Expanding coordination to help the Thurston County Storm and Surface Water Utility satisfy NPDES (National Pollutant Discharge Elimination System) permit requirements for public education (Western Washington Phase II Municipal Stormwater Permit, Section S5.C.1.a.i).
  - Addressing emerging issues in ground and drinking water protection including research, policy and program development, and program implementation on groundwater research using highly treated wastewater.
  - Conducting a literature review and developing materials based on the emerging scientific understanding of links between environmental factors and obesity and chronic diseases (such as diabetes).
  - Implementing outreach efforts or programs recommended by the Thurston Thrives community health improvement initiative of the Thurston County Board of Health.
- Implement other recommendations identified to increase equity in education delivery and improve the design and implementation of hazardous materials education services.
- Conduct additional research and implement outreach programs on the connection between chemicals and chronic disease control and prevention
- Implement hazardous materials related outreach programs recommended by Thurston Thrives or other community health improvement planning/prioritization processes.
- Provide public education on national or state product stewardship programs such as E-Cycle Washington, Washington State Light-Cycle (including the related requirement to recycle all end-of-life mercury lamps), and future programs that may emerge for products such as pharmaceuticals, paint, pesticides, or other household hazardous products.
- Research emerging concerns related to hazardous household products, such as flame retardants and bisphenol-A, and develop education programs on prevention and proper use, storage, safer alternatives, and end-of-life management.

# Small Business Technical Assistance (SBTA)

**Element objective: Educate and motivate small quantity businesses to:**

- **Understand the environmental and human health risks posed by hazardous products.**
- **Reduce their purchase and use of hazardous products.**
- **Properly use, store, and dispose of hazardous products.**

## Core Programs

Thurston County will implement the four following core programs to address small business technical assistance about hazardous waste:

**SBTA-1. Business Pollution Prevention Program**
**SBTA-2. Inspection of Businesses in Wellhead Protection Areas**
**SBTA-3. Business Hazardous Waste Information Line**
**SBTA-4. Integrated Pest Management and Pesticide Reduction Projects**
**SBTA-5. Assessment of Methods to Identify New Businesses**

## SBTA-1. Business Pollution Prevention Program (Current)

| Action | Continue delivery of technical assistance services, such as campaigns for single-industry groups or geographic areas, that result in measurable changes in waste management, compliance, and BMP implementation. |
|---|---|
| **Potential Metrics** | ■ Number or percentage of SQG businesses visited (perhaps a target of 20% per year)<br>■ Compliance rates before and after assistance<br>■ Number and type of businesses that implement voluntary BMPs<br>■ Number and type of voluntary BMPs implemented<br>■ Estimated tons of SQG-related hazardous materials reduced from Thurston County or properly disposed |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | $200,000 to $400,000 \| 1.5 to 3.0 FTE |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

The Business Pollution Prevention Program provides ongoing technical assistance through targeted campaigns to businesses that use hazardous products or generate hazardous waste. Technical assistance:

- Addresses topics related to toxics reduction, safe use and storage, proper disposal, best management practices, and regulatory compliance.

- Uses methods such as site visits, phone and email consultations, and printed and web-based educational materials.
- Targets audiences for which improper management of hazardous wastes poses the greatest threats to human health or the environment, such as businesses in specific industry sectors or geographic areas or businesses whose owners or employees are in historically underserved or vulnerable populations.

Note: Technical assistance provided about hazardous waste also helps the Thurston County Resource Stewardship Department satisfy NPDES (National Pollutant Discharge Elimination System) permit requirements for public education (Western Washington Phase II Municipal Stormwater Permit, Section S5.C.1.a.ii).

## SBTA-2. Inventory and Inspection of Businesses in Wellhead Protection Areas (Current)

| Action | Continue to help public water systems meet their requirements to inventory and inspect potential wellhead contaminant sources. |
|---|---|
| **Potential Metrics** | ■ Number of businesses inspected, compliance rates before and after inspections |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department (with Department of Ecology) |
| **Estimated Cost and FTE** | Costs included in estimate for SBTA-1 |
| **Funding Source(s)** | Previous: Public water systems and Coordinated Prevention Grants<br>Current: Tipping fees and Coordinated Prevention Grants |

Owners of water systems with wellhead protection areas are required to inventory potential contaminant sources, including businesses that use or store hazardous waste, every two years. Thurston County has assisted them by developing lists of businesses that may require notification and by inspecting high priority businesses (as determined by a ranking matrix).

## SBTA-3. Business Hazardous Waste Information Line (Current)

| Action | Continue to operate an information hotline for businesses to provide information on toxics reduction, hazardous waste management, compliance, and best management practices. |
|---|---|
| **Potential Metrics** | ■ Number and topics of calls to Business Hazardous Waste Line |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Cost included in estimate for SBTA-1 |
| **Funding Source(s)** | Current: Tipping Fees and Coordinated Prevention Grants |

# SBTA-4. Integrated Pest Management and Pesticide Reduction Projects (Current)

| Action | Continue to promote integrated pest management (IPM) techniques to reduce the need for toxic chemicals in pest and vegetation management by county agencies, businesses, and the general public. |
|---|---|
| **Potential Metrics** | ■ Number of fact sheets developed or pest problems researched<br>■ Estimated quantities of landscape or pest chemicals sold, applied, or avoided in Thurston County, by type or hazard category<br>■ Compliance rate with the developer IPM plan requirement<br>■ Number of licensed applicators that reduce or eliminate highly toxic or persistent pesticides from their inventory<br>■ Visits to IPM website and linked resources; distribution of outreach materials |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | $40,000 to $60,000 per year \| 0.3 to 0.5 FTE |
| **Funding Source(s)** | Current and prior: Tipping fees, Coordinated Prevention Grants, other grants, and contracts |

Note: This program also supports the Household and Public Education Element (the Common Sense Gardening campaign of Toxics Reduction Education) and the Leadership and Policy Element (Thurston County Government Operations). Specific program activities include:

- Continued development and promotion of a database of reviews of pesticides, herbicides, fungicides, other chemicals, and prescriptions to support pest, weed, and disease control planning.
- Continued development of educational resources (such as fact sheets, booklets, websites) on IPM, particularly in partnership with other agencies, such as King County and Metro (Oregon).
- Continued promotion of IPM techniques to landscape-related businesses and residents.
- Continued education to increase understanding of environmental and human health risks posed by hazardous products.
- Continued implementation of the County's Integrated Pest and Vegetation Management Policy for internal operations. (Also see Recommended Program LPAE-1 for more information).
- Continued education and assistance for developers about County requirements to submit IPM plans.

# SBTA-5. Assessment of Methods to Identify New Businesses (New)

| Action | Assess methods for identifying businesses that generate hazardous waste newly open or change ownership; develop prioritized list of recommendations to identify new businesses and changes in ownership. |
|---|---|
| **Potential Metrics** | ■ Assessment conducted and recommendations identified |
| **Timeframe** | 2014 and as needed |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | $3,000 to $10,000 \| 300 to 100 hours |
| **Funding Source(s)** | Potential: Tipping fees, Coordinated Prevention Grants, other sources |

In coordination with the Thurston County Resource Stewardship Department, the Public Health and Social Services Department reviews applications for new construction and land use permits to identify and address potential hazardous waste issues at new or redeveloped business sites. However, this coordination is informal and does not address new businesses that move into existing locations or business that change owners or regulatory status.

## Alternative Options

As funding becomes available, Thurston County will consider implementing the following programs to address small business technical assistance to reduce the environmental and human health risks posed by hazardous products.

- Assess the unmet technical assistance needs of small businesses in Thurston County, through methods such as:
  - Comprehensive assessment of the number and distribution of small businesses that generate hazardous waste.
  - Prioritization of small businesses both inside and outside wellhead protection areas by their expected risk based on hazardous materials used, quantities of hazardous waste generated, current or historic compliance records, industry type, and proximity to vulnerable geographic locations or populations.
  - Identification of potentially underserved businesses by industry sector, geographic location, or owner or employee demographics.
- Conduct outreach to businesses with septic systems to prevent improper disposal of hazardous and other materials that can pollute groundwater and damage septic systems.
- Provide incentives for businesses to adopt recommended best management practices (BMPs). Incentives could include a recognition program (such as EnviroStars), a certification program (such as for sustainable landscape professionals), financial assistance to help implement BMPs, or other financial incentives.
- Expand coordination with Thurston County's Solid Waste Program on technical assistance where coordination will increase efficiency.

- Coordinate with business associations, trade groups, community organizations to better reach businesses and promote toxics reduction and best management practices.
- Identify and implement effective ways to connect hazardous materials education to related environmental and health concerns, such as restoring Puget Sound, protecting drinking water, and protecting worker health. Potential options for consideration include but are not limited to:
  - Expanding partnerships with water purveyors to further integrate technical assistance on hazardous waste and education on wellhead protection for businesses.
  - Partnering with worker health and safety organizations, such as the Washington State Department of Labor and Industries and community groups that advocate for worker protection. One potential topic is Washington State Department of Labor and Industries' Hazard Communication Standard, establishing a globally harmonized system of classification and labeling of chemicals (WAC 296-901-140).
  - Expanding the partnership with the Thurston County Resource Stewardship Department to integrate assistance, inspections, and violations into AMANDA (permit tracking system).
- Participate in the Department of Ecology's Local Source Control Partnership.

# Small Business Collection Assistance (SBCA)

**Element objective: Provide or facilitate collection services for business hazardous waste and key special wastes that meet the needs of small quantity generators.**

## Core Programs

Thurston County will implement the three following core programs to address small business collection assistance for hazardous waste:

**SBCA-1. Small Quantity Generator Business Waste Collection**

**SBCA-2. Reassessment of Small Business Collection Needs**

**SBCA-3. Program Revisions to Address Small Business Collection Needs**

## SBCA-1. Small Quantity Generator Businesses Waste Collection (Current)

| Action | Continue accepting business hazardous waste from small quantity generators for a fee at the existing hazardous waste collection facility (HazoHouse); as feasible, continue collecting waste at satellite locations. |
|---|---|
| **Potential Metrics** | ■ Number of SQG customers and participation rate<br>■ Quantity of MRW collected, in tons and as a percentage of estimated total generation<br>■ Quantity of hazardous waste remaining in commercial municipal solid waste.<br>■ Service equity measured by customer demographics, such as zip code, primary language, and business type. |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Works Department |
| **Estimated Cost and FTE** | Disposal costs included in estimate for HHWC-1; other program costs included in estimate for SBTA-1 |
| **Funding Source(s)** | Current: User fees and tipping fees |

Small Quantity Generator (SQG) businesses that generate less than 220 pounds of hazardous waste per month and store no more than 2,200 pounds of waste on site at any time. Since 2005, Thurston County has supplemented HazoHouse collection with the collection of boat-related waste directly from marinas.

# SBCA-2. Reassessment of Small Business Collection Needs (New)

| Action | Assess equity in and barriers to SQG business participation in waste collection services; develop prioritized list of recommendations to increase equity and ensure SQG businesses properly dispose of waste. |
|---|---|
| **Potential Metrics** | ■ Assessment conducted and recommendations identified |
| **Timeframe** | 2017 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Cost depends on level of detail: $5,000 to $50,000 \| 50 to 500 hours |
| **Funding Source(s)** | Potential: Tipping fees and other sources |

This planning effort should examine:

- Estimated number of SQG businesses in Thurston County in total and, as feasible, by:
  - Current disposal method (such as HazoHouse, private vendor, other, none).
  - Risk based on type and quantity of hazardous materials used and waste generated.
- Service equity as measured by comparing the demographics of SQG customers to the demographics of overall SQG businesses for attributes such as zip code, owner/manager languages spoken, owner/manager race and ethnicity, business type, and use of other safe disposal methods.
- Trends in SQG business waste generation and disposal methods, by audience type, to identify potential gaps in services or in awareness of options, existing services, and requirements.
- Potential barriers such as:
  - Distance businesses are willing to travel to safely dispose of household hazardous waste.
  - Fees businesses are willing to pay to dispose of household hazardous waste safely.
  - Awareness of proper disposal and existing disposal options in general, for specific cultural groups, and for specific industry sectors.
  - Communication preferences regarding language used and delivery media.
  - Days, hours, and frequency of HazoHouse operations.

# SBCA-3. Program Revisions to Address Small Business Collection Needs (New)

| Action | Implement high-priority recommendations identified to increase equity and ensure SQG businesses properly dispose of waste. |
|---|---|
| **Potential Metrics** | ■ Changes in number or location of business customers<br>■ Changes in number and percentage of SQG businesses that properly dispose of waste (whether through the HazoHouse or a private collector)<br>■ Changes in service equity measured by customer demographics, such as zip code and primary language |
| **Timeframe** | Ongoing after assessment (2018) |
| **Implementing Agency** | Thurston County Public Health & Social Services Department and Public Works Department |
| **Estimated Cost and FTE** | Costs depend on revisions needed |
| **Funding Source(s)** | Potential: Tipping fees |

## Alternative Options

As funding becomes available, Thurston County will consider implementing the following programs to assist conditionally exempt small quantity generator (CESQG) businesses with collection of their hazardous waste.

- Update Thurston County Code 8.12.030 to increase fees for CESQG businesses that dispose of hazardous waste at HazoHouse; fees have not been adjusted to reflect increases in hazardous waste handling and disposal costs since 2003.
- Provide financial assistance to help small businesses properly recycle or dispose of their hazardous wastes using commercial vendors (such as reimbursement for a portion of the cost) or using the HazoHouse (such as no fee for qualifying businesses or for a business's initial visit).
- Provide technical assistance to help small businesses that generate hazardous waste reduce disposal costs when using private vendors.
- Expand WasteMobile collection services to accept waste from SQG businesses.
- Assess future regional CESQG business collection needs; develop and implement recommendations to address emerging needs, such as:
  - Changes in population and business characteristics.
  - Needs for modifying the types of materials collected by the County.
  - Need for facilitating collection programs for additional hazardous or special waste products.

# Enforcement (E)

**Element objective: Provide protection of human health and the environment for all residents and workers in Thurston County.**

## Core Programs

Thurston County will implement the three following core programs to address enforcement and regulations:

**E-1. Inspections, Permitting, Complaint Response, and Enforcement**

**E-2. Regulatory Coordination**

**E-3. Site Hazard Assessment**

## E-1. Inspections, Permitting, Complaint Response, and Enforcement (Current)

| Action | Continue to issue moderate risk waste (MRW) facility permits (HazoHouse) and conduct associated inspections<br>Continue to conduct enforcement activities and inspections under the authority of the Nonpoint Source Pollution Ordinance (Article VI) and Solid Waste Handling Ordinance (Article V).<br>Continue to respond to hazardous- and solid-waste-related complaints. |
|---|---|
| **Potential Metrics** | ■ Number and type of waste-related complaints responded to<br>■ Percentage of complaints resolved<br>■ Number of enforcement actions<br>■ Rate of compliance with Articles V and VI<br>■ Length of time to compliance |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | $150,000 to $250,000 \| 1.0 to 1.7 FTE |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

Complaint response and enforcement activities are initiated by the following methods:

- Complaints received on the Thurston County's Hazardous Waste Hotline.
- Notifications from the Department of Ecology's Environmental Response Tracking System (ERTS).
- Referrals from the Business Pollution Prevention Program (when technical assistance alone did not achieve compliance).

Note: Hazardous waste inspections and enforcement actions also help the Thurston County Resource Stewardship satisfy NPDES (National Pollutant Discharge Elimination System) permit requirements to

implement an ongoing program to detect and address non-stormwater illicit discharges, including spills (Western Washington Phase II Municipal Stormwater Permit, Section S5.C.3.c).

## E-2. Regulatory Coordination (Current)

| Action | Continue to coordinate with the Department of Ecology, other agencies, and other County departments involved in hazardous materials regulations, building permits, wellhead protection, and other activities that relate to prevention and proper use, storage, and disposal of hazardous materials. |
|---|---|
| **Potential Metrics** | ■ Number and type of coordination activities<br>■ Benefits from coordination activities |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Costs included in estimates for E-1, E-2, HPE-1, and SBTA-1 |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

Current examples include:

- Coordinating with the Department of Ecology to conduct joint inspections of businesses that are moderate and large quantity generators of hazardous waste.
- Providing risk-based inspections for wellhead protection areas.
- Providing permit review services for the review of new building or commercial permits that include use, storage, or disposal of hazardous materials.
- Providing inspections and enforcement actions related to hazardous waste risks to storm and surface water on behalf of the Thurston County Storm and Surface Water Utility.

# E-3. Site Hazard Assessment (Current)

| Action | Continue to conduct site hazard assessments, oversee small spill cleanups conducted by responsible parties, and refer large spills and sites requiring remediation to the Washington State Department of Ecology. |
|---|---|
| **Potential Metrics** | ■ Number, type, and location of sites assessed<br>■ Number, type, and location of sites in the investigation and remediation process (includes sites under Department of Ecology jurisdiction)<br>■ Number, type, and location of remaining contaminated sites (includes sites under Department of Ecology jurisdiction) |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | $100,000 to $150,000 per year \| 0.7 to 1.0 FTE |
| **Funding Source(s)** | Current: Site Hazard Assessment Grants |

## Alternative Options

As funding becomes available, Thurston County will consider implementing the following programs to address enforcement.

- Establish and implement civil penalties to be assessed by the County for violations of Article VI (Rules and Regulations of the Thurston County Board of Health Governing Nonpoint Source Pollution).
- Participate in creating a linked enforcement, permit, and license tracking system with other County ordinances and departments.
- Assess and update as needed in Article VI the County's authority to require clean-up of contaminated sites, enforce hazardous waste regulations, ensure public health and safety, and prevent risks to the environment.
- Enhance regulatory coordination with other County departments and other government agencies, such as wellhead protection programs, the Washington State Department of Health, NPDES programs in local cities, local emergency planning committee hazardous waste management planning, and business licensing agencies.

# Used Oil Collection, Recycling, and Outreach (UOCRO)

**Element objective: Provide or facilitate collection services for used oil and related automotive wastes that meet the needs of residents and small quantity generators.**

## Core Programs

Thurston County will implement the two following core programs to address collection and recycling of used oil and related automotive wastes:

**UOCRO-1. Used Oil Collection Sites**

**UOCRO-2. Oil Filter and Antifreeze Collection**

## UOCRO-1. Used Oil Collection Sites

| Action | Continue to operate the public used-oil collection site network and promote the private network of local retail businesses. |
|---|---|
| **Potential Metrics** | ■ Number and geographic distribution collection sites<br>■ Collected volume of used oil (through both public and private sites)<br>■ Percentage of generated used oil that is collected<br>■ Percentage of oil collected that is re-refined (instead of burned for energy generation) |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | $15,000 to $20,000 per year \| 0.1 to 0.2 FTE |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

## UOCRO-2. Oil Filter and Antifreeze Collection

| Action | Continue to collect oil filters and antifreeze through public collection systems (HazoHouse, WasteMobile) and to facilitate collection at private retail sites. |
|---|---|
| **Potential Metrics** | ■ Collected quantities of oil filters and antifreeze used oil<br>■ Percentage of generated oil filters and antifreeze that is collected |
| **Timeframe** | Ongoing, 2014 - 2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department |
| **Estimated Cost and FTE** | Costs included in estimates for HHWC-1 and UOCRO-1 |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

## Alternative Options

As funding becomes available, Thurston County will consider implementing the following programs to address used oil recycling.

- Assess equity in and barriers to resident participation in the used oil collection system; develop prioritized list of recommendations to increase equity and ensure residents properly dispose of used oil, oil filters, and antifreeze. This planning effort should examine:
  - Estimated number of residents in Thurston County who generate used oil and antifreeze in total and by current disposal method and location.
  - Service equity as measured by comparing the demographics of used oil system customers to the demographics of overall residents who generate used oil for attributes such as zip code, languages spoken, race and ethnicity, income, and residence type.
  - Trends in used oil generation and disposal methods, by audience type, to identify potential gaps in services or in awareness of options and existing services.
  - Potential barriers such as:
    - Distance residents are willing to travel to safely dispose of automotive fluids.
    - Awareness of proper disposal methods and existing disposal options in general and for specific demographic groups.
    - Communication preferences regarding language used and delivery media.
    - Days, hours, and locations of used oil drop-off sites.
- Recruit or establish additional used oil collection facility locations; expand number of sites that also accept batteries, oil filters, and antifreeze.
- Reinstate the used oil recycling publicity campaigns using printed and online media to increase oil collection rates. Offer publications on how and where to recycle used oil in a variety of languages based on the language trends reflected in recent Census data.
- Reuse re-refined oil in County vehicles.
- Identify and implement strategies to increase the percentage of collected oil that is re-refined.
- Coordinate with regional, statewide, or national efforts that also address proper disposal of automotive fluids, such as the Puget Sound Starts Here campaign.

# Leadership, Policy, Administration, and Evaluation (LPAE)

**Element objective (1): Establish or promote policies that reduce the toxicity of products in the marketplace and that encourage responsibility among those who produce, sell, and use hazardous products to protect human health and the environment.**

**Element objective (2): Implement programs that reduce the County's use of hazardous chemicals; prevent County departments from improperly using, storing, or disposing of hazardous materials; and encourage others to do the same by leading by example.**

**Element objective (3): Administer program to achieve the highest public health and environmental benefits cost-effectively and to ensure program sustainability.**

**Element objective (4): Evaluate effectiveness and implementation status of programs.**

## Core Programs

Thurston County will implement the six following core programs to address County leadership, hazardous waste policies, program administration, and program and campaign evaluation:

**LPAE-1. Thurston County Government Operations**

**LPAE-2. Product Stewardship Support**

**LPAE-3. Required Reporting**

**LBAE-4. In-Depth Program Evaluation**

**LPAE-5. Assessment of Alternative Funding Sources**

**LPAE-6. Hazardous Waste Management Plan Updates**

## LPAE-1. Thurston County Government Operations (Current)

| Action | Continue activities to reduce County government use of hazardous products and to ensure safe use, storage, and disposal. |
|---|---|
| **Potential Metrics** | ■ Quantities of pesticides applied and quantities of other hazardous products purchased, by type and availability of safer alternatives<br>■ Number of new fact sheets developed and other training activities conducted for other departments |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health & Social Services Department, in cooperation with other County departments |
| **Estimated Cost and FTE** | PHSS costs included in estimate for SBTA-4 |
| **Funding Source(s)** | Current: Tipping Fees |

Activities include but are not limited to:

- Integrated Pest Management (IPM) research and implementation.
- Environmentally Preferred Purchasing (EPP), as described in the Thurston County Sustainability Policy.

## LPAE- 2. Product Stewardship Support (Current)

| Action | Continue involvement in the Northwest Product Stewardship Council (NWPSC) to further policies and programs that reduce the toxicity of products in the marketplace and the impacts of wastes on the County. |
|---|---|
| **Potential Metrics** | ■ Successes of the NWPSC to promote programs and policies such as manufacturer take-back systems and other product stewardship initiatives.<br>■ Thurston County staff time spent on NWPSC activities.<br>■ Quantities of products managed by product stewardship organizations. |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Works Department |
| **Estimated Cost and FTE** | $25,000 \| .25 FTE (split between PHSS and PW) |
| **Funding Source(s)** | Current: Tipping Fees |

Activities include but are not limited to:

- Research, development, support, and promotion of local, state, or federal product stewardship policies, regulations, or programs.
- Coordination with businesses and other government agencies to develop and implement product stewardship programs in Thurston County and Washington State.

## LPAE-3. Required Reporting (Current)

| Action | Continue to complete reports to meet requirements of the Department of Ecology, Department of Health, and other agencies that fund, regulate, or oversee the County's hazardous waste activities. |
|---|---|
| **Potential Metrics** | ■ Coordinated Prevention Grant reports completed to the Department of Ecology's satisfaction<br>■ Regulatory reports, such as Annual MRW Facility Reports, completed to the Department of Ecology's satisfaction |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health and Social Services Department |
| **Estimated Cost and FTE** | Costs for evaluation are incorporated into the budget for each program service to be evaluated. Evaluation activities typically require 5 to 10 percent of activity budgets. |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

## LPAE-4. In-Depth Program Evaluation (Current)

| Action | Continue to develop and conduct evaluation activities that supplement reporting requirements by assessing outcomes and implementation effectiveness in more depth; develop and implement recommendations to improve outcomes and program effectiveness. |
|---|---|
| **Potential Metrics** | ■ Evaluation completed for each outreach, technical assistance, and enforcement campaign<br>■ Evaluation completed for each hazardous waste collection method |
| **Timeframe** | Ongoing, 2014–2018 |
| **Implementing Agency** | Thurston County Public Health and Social Services Department |
| **Estimated Cost and FTE** | Costs for evaluation are incorporated into the budget for each program service to be evaluated. Evaluation activities typically require 5 to 10 percent of activity budgets. |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

Evaluation reports should address the following topics:

- Resident and business customer characteristics, such as zip code, languages spoken, race and ethnicity, income, residence or business type, and ability to reach collection sites.
- Program outcomes, such as:
  - Residents' changes in behavior, awareness, and attitudes related to household hazardous materials and waste (baseline compared to post-program).
  - Businesses' changes in compliance, best management practice implementation, awareness, and attitudes related to hazardous materials and waste (baseline compared to post-program).
  - Quantities and types of waste collected or prevented.

- Program effectiveness, such as:
  - Extent to which the program met Hazardous Waste Management Plan goals and objectives.
  - Extent to which the program met program-specific goals and objectives.
  - Program cost-effectiveness.
  - Effectiveness of program activities and components, such as communication methods, campaign messages, and assistance techniques.
- Lessons learned and recommendation to apply to future activities based on information from surveys, interviews, or focus groups of program staff, managers, and customers.

## LPAE-5. Assessment of Alternative Funding Sources (New)

| Action | Assess potential funding sources for hazardous waste activities in general and for specific programs (such as the HazoHouse or wellhead assessments); develop prioritized list of recommendations. |
|---|---|
| **Potential Metrics** | ■ Assessment conducted |
| **Timeframe** | 2014 |
| **Implementing Agency** | Thurston County Public Health and Social Services Department |
| **Estimated Cost and FTE** | Cost depends on level of detail: $5,000 to $30,000 \| 50 to 300 hours |
| **Funding Source(s)** | Potential: Tipping fees and Coordinated Prevention Grants |

Note: **Chapter D (Financing the Program)** presents an initial list of alternative funding options to explore.

## LPAE-6. Hazardous Waste Management Plan Updates (Renewing)

| Action | Update and revise the County's Hazardous Waste Management Plan. |
|---|---|
| **Potential Metrics** | ■ Hazardous Waste Management Plan updated on schedule<br>■ Hazardous Waste Management Plan revised as needed during 2013–2018 planning period to adjust to changing circumstances and new information |
| **Timeframe** | 2018 (comprehensive update) and 2014–2018 (as needed) |
| **Implementing Agency** | Thurston County Public Health and Social Services Department |
| **Estimated Cost and FTE** | $50,000 to $100,000 \| 500 to 1,000 hours |
| **Funding Source(s)** | Current: Tipping fees and Coordinated Prevention Grants |

## Alternative Options

As funding becomes available, Thurston County will consider implementing the following efforts to achieve its objectives on leadership, policies, administration, and evaluation.

- Further product stewardship policies and programs to reduce the toxicity of products in the marketplace and the impacts of wastes on the County through:
  - Involvement and coordination with the Northwest Product Stewardship Council (beyond the Public Works Department's current involvement on solid-waste-related issues).
  - Research, development, support, and promotion of local, state, or federal producer responsibility policies or regulations.
  - Coordination with businesses and other government agencies to develop and implement producer responsibility programs in Thurston County and Washington State.
- Partner with the Department of Ecology and other regional entities to advance green chemistry and develop safer alternatives to hazardous products.
- Develop and implement programs that support Washington State plans, policies, and programs including:
  - *Beyond Waste Plan*, 2004.
  - *Beyond Waste Plan 2009 Update*.
  - *Department of Ecology 2013-15 Strategic Plan*.
  - *The 2012/2013 Action Agenda for Puget Sound.*
  - *Wellhead Protection Program Guidance Document*, 2010.
  - Chemical action plans for mercury, 2003; polybrominated diphenyl ether (PBDE), 2006; lead 2009; and polycyclic aromatic hydrocarbon (PAH). 2012.
  - Toxics Reduction Strategy, in development.
- Document and share information on IPM, EPP, and other sustainability activities with other local governments, residents, businesses, and others that could learn from the County's efforts to reduce its own use of hazardous products.
- Conduct research to develop a database (similar to the IPM database in SBTA-4) of chemicals such as cleaners and chemicals used by businesses in Thurston County. The database would include product reviews; information about safer alternative products; and information on methods or prescriptions to reduce or avoid the use of chemicals of concern.
- Continued development of educational resources (such as fact sheets, booklets, websites) on IPM, particularly in partnership with other agencies, such as King County and Metro (Oregon).
- Implement recommendations to obtain funding from alternative sources.
- Increase County evaluation capacity such as through:
  - Training County staff on conducting effective evaluations.
  - Developing additional evaluation measures, frameworks, and tools.
  - Developing a long-term data collection, monitoring, and evaluation plan.
- Establish additional annual targets for programs and individual campaigns.

- Identify, engage, and educate additional stakeholders with an interest in hazardous waste prevention and management in Thurston County.
- Conduct a comprehensive evaluation of the County hazardous waste program as a whole including assessing and developing prioritize recommendations to improve:
  - The extent to which the set of County programs protect public health and environmental quality, including through environmental sampling and public health surveys.
  - The extent to which services as a whole are meeting customer service goals and serving target audiences equitably.
  - Benefits, costs, and effectiveness compared across individual program activities.
- Address the potential human and environmental health impacts of groundwater recharge using highly treated wastewater, which can contain small amounts of hazardous substances, medicine, and other special substances through research, policy development and adoption, and program development and implementation.

# Summary of Anticipated Costs and Schedule

**Table 2. Anticipated Cost and Schedule for Core Programs for 2014–2018**

| Core Program | Program Status | Estimated Annual Cost in $1,000s | Anticipated Schedule 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| **Household Hazardous Waste Collection** | | | | | | | |
| HHWC-1. HazoHouse | Current | $350 to $400 | X | X | X | X | X |
| HHWC-2. Wastemobile | Current | $25 to $30 | X | X | X | X | X |
| HHWC-3. Medicine Return Program | Current | Minimal | X | X | X | X | X |
| HHWC-4. Swap Shop | Resuming | In HHWC-1 | X | X | X | X | X |
| HHWC-5. Syringe Collection and Disposal Program | New | $10 to $30 | X | X | X | X | X |
| HHWC-6. Reassessment of Resident Collection Needs | New | $5 to $50 | | X | | | |
| HHWC-7. Program Revisions to Address Resident Collection Needs | New | Unknown | | | | X | X |
| **Household and Public Education** | | | | | | | |
| HPE-1. Toxics Reduction Education and Outreach | Current | $200 to $400 | X | X | X | X | X |
| HPE-2. Environmental Health Information Line | Current | In HPE-1 | X | X | X | X | X |
| HPE-3. Reassessment of Resident and Education Needs | New | $5 to $50 | | X | | | |
| HPE-4. Program Revisions to Address Resident Education Needs | New | Unknown | | | | X | X |
| **Small Business Technical Assistance** | | | | | | | |
| SBTA-1. Business Pollution Prevention (BPP) Program | Current | $200 to $400 | X | X | X | X | X |
| SBTA-2. Inspection of Businesses in Wellhead Protection Areas | Current | In SBTA-1 | X | X | X | X | X |
| SBTA-3. Business Hazardous Waste Information Line | Current | In SBTA-1 | X | X | X | X | X |
| SBTA-4. IPM and Pesticide Reduction Projects | Current | $40 to $60 | X | X | X | X | X |
| SBTA-5. Assessment of Methods to Identify New Businesses | New | $3 to $10 | | | X | | |
| **Small Business Collection Assistance** | | | | | | | |
| SBCA-1. Small Quantity Generator Business Waste Collection | Current | In HHWC-1 | X | X | X | X | X |
| SBCA-2. Reassessment of Small Business Collection Needs | New | $5 to $50 | | | X | | |
| SBCA-3. Program Revisions to Address Business Collection Needs | New | Unknown | | | | | X |

| Core Program | Program Status | Estimated Annual Cost in $1,000s | Anticipated Schedule 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| **Enforcement** | | | | | | | |
| E-1. Inspections, Permitting, Complaint Response, and Enforcement | Current | $150 to $250 | X | X | X | X | X |
| E-2. Regulatory Coordination | Current | In E-1, E-2, HPE-1, SBTA-1 | X | X | X | X | X |
| E-3. Site Hazard Assessment | Current | $100 to $150 | X | X | X | X | X |
| **Used Oil Collection, Recycling, and Outreach** | | | | | | | |
| UOCRO-1. Used Oil Collection Sites | Current | $15 to $20 | X | X | X | X | X |
| UOCRO-2. Oil Filter and Antifreeze Collection | Current | In HHWC-1, UOCRO-1 | X | X | X | X | X |
| **Leadership, Policy, Administration, and Evaluation** | | | | | | | |
| LPAE-1. Thurston County Government Operations | Current | In SBTA-3 | X | X | X | X | X |
| LPAE-2. Product Stewardship Support | Current | $25 | X | X | X | X | X |
| LPAE-3. Required Reporting | Current | In specific programs | X | X | X | X | X |
| LBAE-4. In-Depth Program Evaluation | Current | In specific programs | X | X | X | X | X |
| LPAE-5. Assessment of Alternative Funding Sources | New | $5 to $30 | X | | | | |
| LPAE-6. Hazardous Waste Management Plan Updates | Recurring | $50 to $100 | | | | | X |

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# Appendix 1
# Transmittal Letter

July 31, 2014

Julie Robertson, Regional Planner
Department of Ecology
Waste 2 Resources Program, SWRO
PO Box 47775
Olympia, WA 98504-7775

SUBJECT: Thurston County Hazardous Waste Management Plan
**Final Draft**—Hazardous Waste Management Plan

Dear Ms. Robertson:

Enclosed are copies of the final draft of the *Thurston County Hazardous Waste Management Plan 2014*. At this time, Thurston County is requesting Ecology's formal review and subsequent approval of this plan.

Thurston County understands that Ecology has agreed to review the plan in 45 days.

Enclosed are the following per your request:

1. Three copies of the County's Thurston County Hazardous Waste Management Plan 2014.
2. Evidence of SWAC participation in the form of a letter from the SWAC included in Appendix 3.
3. Evidence of local agreements for Hazardous Waste Planning included in Appendix 2.
4. Evidence of compliance with SEPA included in Appendix 6.

Please acknowledge your receipt of this package and advise when we can expect your response.

Sincerely,

Gerald Tousley, Hazardous Waste Specialist III
Thurston County Public Health and Social Services Department

Enclosures : Three (3)

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# Appendix 2
# Local Jurisdiction Adoption

This appendix presents letters of resolutions from participating jurisdictions, documenting their adoption of the update of the *Hazardous Waste Management Plan for Thurston County 2014*.

- Thurston County Board of Health and County Commissioners
  - Resolution #15047 Adopted on 7/22/14
- Town of Bucoda
  - Resolution #2014-03 Adopted on 4/8/14
- City of Lacey
  - Resolution #1011 Adopted on 6/26/14
- City of Olympia
  - Resolution #M-1805 Adopted on 5/27/14
- City of Rainier
  - Resolution #518 Adopted on 4/22/14
- City of Tenino
  - Resolution #2014-13 Adopted on 6/10/14
- City of Tumwater
  - Resolution #R2014-10 Adopted on 4/15/14
- City of Yelm
  - Resolution #551 Adopted on 7/8/14

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RESOLUTION NO. 15047

A RESOLUTION adopting the 2014 Thurston County Hazardous Waste Management Plan.

WHEREAS, Thurston County is required to prepare a Hazardous Waste Management Plan (Plan) pursuant to RCW 70.105.220; and

WHEREAS, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

WHEREAS, the cities of Lacey, Olympia, Rainier, Tenino, Tumwater, and Yelm and the town of Bucoda participated with the County in developing the Plan, adopted the Plan, and designated Thurston County to administer the Plan; and

WHEREAS, the Thurston County Solid Waste Advisory Committee recommended approval of the Plan on August 20, 2013; and

WHEREAS, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

WHEREAS, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THURSTON COUNTY COMMISSIONERS that the 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as attached hereto and incorporated herein by reference.

ADOPTED: July 22, 2014

ATTEST:

LaBonita J. Bowman
Clerk of the Board

APPROVED AS TO FORM:

JON TUNHEIM
PROSECUTING ATTORNEY

Jane Futterman
Acting Chief Civil Deputy

BOARD OF COUNTY COMMISSIONERS
Thurston County, Washington

Karen Valenzuela
Chair

Sandra Romero
Vice-chair

Cathy Wolfe
Commissioner

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# RESOLUTION 2014-03

**A RESOLUTION adopting** the 2014 Thurston County Hazardous Waste Management Plan.

WHEREAS, Thurston County is required to prepare a Hazardous Waste Management Plan (Plan) pursuant to RCW 70.105.220; and

WHEREAS, incorporated cities and towns in Thurston County have participated with the County in developing the Plan for hazardous waste management pursuant to an Interlocal Agreement executed by the City; and

WHEREAS, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

WHEREAS, the Thurston County Solid Waste Advisory Committee recommended approval of the Plan on August 20, 2013; and

WHEREAS, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

WHEREAS, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN OF BUCODA as follows:

Section 1. The 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as the Town of Bucoda hazardous waste management plan.

Section 2. Thurston County is designated as the agent to administer the hazardous waste management plan within the Town of Bucoda with full authority to implement the Plan and services consistent with the Plan.

ADOPTED: April 8, 2014

Alan Carr, Mayor

ATTEST:

Shelly Smith, Clerk / Treasurer

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RESOLUTION NO. 1011

A RESOLUTION OF THE LACEY CITY COUNCIL ADOPTING THE 2014 THURSTON COUNTY HAZARDOUS WASTE MANAGEMENT PLAN.

WHEREAS, Thurston County is required to prepare a Hazardous Waste Management Plan (Plan) pursuant to RCW 70.105.220; and

WHEREAS, incorporated cities and towns in Thurston County have participated with the County in developing the Plan for hazardous waste management pursuant to an Interlocal Agreement executed by the City; and

WHEREAS, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

WHEREAS, the Thurston County Solid Waste Advisory Committee recommended approval of the Plan on August 20, 2013; and

WHEREAS, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

WHEREAS, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

NOW, THEREFORE, BE IT RESOLVED BY THE LACEY CITY COUNCIL as follows:

Section 1. The 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as the City of Lacey hazardous waste management plan.

Section 2. Thurston County is designated as the agent to administer the hazardous waste management plan within the City of Lacey with full authority to implement the Plan and services consistent with the Plan.

ADOPTED BY THE CITY COUNCIL OF THE CITY OF LACEY, WASHINGTON, this 26th day of June, 2014.

CITY COUNCIL

By _____
Andy Ryder, Mayor

Attest:

_____
Carol Litten, City Clerk

Approved as to form:

_____
David Schneider, City Attorney

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**RESOLUTION NO.** M-1805

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF OLYMPIA, WASHINGTON, ADOPTING THE 2014 THURSTON COUNTY HAZARDOUS WASTE MANAGEMENT PLAN.**

WHEREAS, Thurston County is required to prepare a Hazardous Waste Management Plan (the Plan) pursuant to RCW 70.105.220; and

WHEREAS, incorporated cities and towns in Thurston County have participated with the County in developing the Plan for hazardous waste management pursuant to an Interlocal Agreement executed by the City on December 11, 2012; and

WHEREAS, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

WHEREAS, the Thurston County Solid Waste Advisory Committee recommended approval of the Plan on August 20, 2013; and

WHEREAS, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

WHEREAS, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

**NOW, THEREFORE, THE OLYMPIA CITY COUNCIL DOES HEREBY RESOLVE AS FOLLOWS:**

**Section 1.** The 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as the City of Olympia Hazardous Waste Management Plan.

**Section 2.** Thurston County is designated as the agent to administer the Hazardous Waste Management Plan within the City of Olympia with full authority to implement the Plan and services consistent with the Plan.

**PASSED BY THE OLYMPIA CITY COUNCIL** this 27th day of May 2014.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

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RESOLUTION NO. 518

A RESOLUTION adopting the 2014 Thurston County Hazardous Waste Management Plan.

WHEREAS, Thurston County is required to prepare a Hazardous Waste Management Plan (Plan) pursuant to RCW 70.105.220; and

WHEREAS, incorporated cities and towns in Thurston County have participated with the County in developing the Plan for hazardous waste management pursuant to an Interlocal Agreement executed by the City; and

WHEREAS, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

WHEREAS, the Thurston County Solid Waste Advisory Committee recommended approval of the Plan on August 20, 2013; and

WHEREAS, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

WHEREAS, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

NOW, THEREFORE, BE IT RESOLVED BY THE RAINIER CITY COUNCIL as follows:

Section 1. The 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as the City of Rainier hazardous waste management plan.

Section 2. Thurston County is designated as the agent to administer the hazardous waste management plan within the City of Rainier with full authority to implement the Plan and services consistent with the Plan.

ADOPTED: 4/22/14

R

Randy Schleis, Mayor

ATTEST: Charmayne Garrison

Charmayne Garrison

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**RESOLUTION NO. 2014-13**

**CITY OF TENINO, WASHINGTON**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF TENINO, THURSTON COUNTY, WASHINGTON, ADOPTING THE 2014 THURSTON COUNTY HAZARDOUS WASTE MANAGEMENT PLAN.**

**THE CITY COUNCIL OF THE CITY OF TENINO, WASHINGTON, DOES RESOLVE AS FOLLOWS:**

WHEREAS, Thurston County is required to prepare a Hazardous Waste Management Plan (Plan) pursuant to RCW 70.105.220; and

WHEREAS, incorporated cities and towns in Thurston County have participated with the County in developing the Plan for hazardous waste management pursuant to an Interlocal Agreement executed by the City; and

WHEREAS, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

WHEREAS, the Thurston County Solid Waste Advisory Committee recommended approval of the Plan on August 20, 2013; and

WHEREAS, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

WHEREAS, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

NOW, THEREFORE, BE IT RESOLVED BY THE TENINO CITY COUNCIL as follows:

Section 1. The 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as the City of Tenino hazardous waste management plan.

Section2. Thurston County is designated as the agent to administer the hazardous waste management plan within the City of Tenino with full authority to implement the Plan and services consistent with the Plan

**Passed** by the City Council of the City of Tenino, Washington, and **APPROVED** by its Mayor, at a regularly scheduled open public meeting thereof this 10th day of June,

Bret D. Brodersen, Mayor

Attest:

Sandra L. Cole, Clerk/Treasurer

Approved as to form:

~~William~~ Hillier, City Attorney
Erin

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**RESOLUTION NO. R2014-010**

**A RESOLUTION** of the City Council of the City of Tumwater, Washington adopting the 2014 Thurston County Hazardous Waste Management Plan.

**WHEREAS**, Thurston County and the City of Tumwater are required to prepare a Hazardous Waste Management Plan (Plan) pursuant to RCW 70.105.220; and

**WHEREAS**, incorporated cities and towns in Thurston County, including the City of Tumwater, have participated with the County in developing the Plan for hazardous waste management pursuant to an Interlocal Agreement executed by the City; and

**WHEREAS**, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

**WHEREAS**, the Thurston County Solid Waste Advisory Committee, which includes a representative from the City of Tumwater, recommended approval of the Plan on August 20, 2013; and

**WHEREAS**, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

**WHEREAS**, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF TUMWATER AS FOLLOWS:**

Section 1. The 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as the City of Tumwater's hazardous waste management plan.

Section 2. Thurston County is designated as the agent to administer the hazardous waste management plan within the City of Tumwater with full authority to implement the Plan and services consistent with the Plan.

Section 3. Ratification. Any act consistent with the authority and prior to the effective date of this Resolution is hereby ratified and affirmed.

**Section 4. Severability.** The provisions of this Resolution are declared separate and severable. The invalidity of any clause, sentence, paragraph, subdivision, section, or portion of this Resolution or the invalidity of the application thereof to any person or circumstance, shall not affect the validity of the remainder of the Resolution, or the validity of its application to other persons or circumstances.

**Section 5. Effective Date.** This Resolution shall become effective immediately upon adoption and signature as provided by law.

**RESOLVED** this 15 day of April, 2014.

CITY OF TUMWATER

Pete Kmet, Mayor

ATTEST:

Melody Valiant, City Clerk

APPROVED AS TO FORM:

Karen Kirkpatrick, City Attorney

**CITY OF YELM**

**RESOLUTION NO. 551**

**A RESOLUTION adopting the 2014 Thurston County Hazardous Waste Management Plan.**

**WHEREAS**, each local government is required to prepare a local Hazardous Waste Management Plan (Plan) pursuant to RCW 70.105.220; and

**WHEREAS**, incorporated cities and towns in Thurston County have participated with the County in developing the Plan for hazardous waste management pursuant to an Interlocal Agreement executed by the City; and

**WHEREAS**, it is necessary for the Plan to be updated pursuant to RCW 70.105.220; and

**WHEREAS**, the Thurston County Solid Waste Advisory Committee recommended approval of the Plan on August 20, 2013; and

**WHEREAS**, the proposed Plan has been reviewed as a non-project action under SEPA and a Determination of Nonsignificance was issued on September 6, 2013; and

**WHEREAS**, the adopted Plan will be submitted to the Washington State Department of Ecology for final approval;

**NOW, THEREFORE**, BE IT RESOLVED BY THE YELM CITY COUNCIL as follows:

Section 1. The 2014 Thurston County Hazardous Waste Management Plan is hereby adopted as the City of Yelm hazardous waste management plan.

Section 2. Thurston County is designated as the agent to administer the hazardous waste management plan within the City of Yelm with full authority to implement the Plan and services consistent with the Plan.

Approved by the City Council of the City of Yelm, Washington this 8th day of July, 2014

Robert W Isom

~~Ron Harding~~, Mayor Pro Tem
Robert Isom

ATTEST:

Janine Schnepf, City Clerk

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# Appendix 3
# Solid Waste Advisory Committee Participation

This appendix presents evidence of Thurston County Solid Waste Advisory Committee participation in the update of the *Hazardous Waste Management Plan for Thurston County 2013*. Members of the Thurston County SWAC were provided with the draft Plan for their review. One SWAC member responded with the following comments on July 8, 2013. A letter of support from the SWAC follows this documentation of responses to SWAC comments.

| Section | SWAC Comment | County Response |
|---|---|---|
| Plan Summary. Page PS -3 | Public Education; could this be combined with Solid Waste and Recycling Education programs? | Added a statement in Chapter G to clarify that PHSS coordinates where appropriate; however, solid and hazardous waste issues can have different target audiences and require different educational approaches. "The County will seek to deliver public education efficiently by coordinating among County programs (such as between the Hazardous Waste Program and Solid Waste Program) and with outside related agencies and non-profit organizations where appropriate." |
| Plan Summary. Page PS -3 | Small Business Education; same as (a)? | Added a statement in Chapter G to clarify that PHSS coordinates where appropriate; however, solid and hazardous waste issues can have different target audiences and require different educational approaches. "The County will seek to deliver technical assistance efficiently by coordinating among County programs (such as between the Hazardous Waste Program and Solid Waste Program) and with outside related agencies and non-profit organizations where appropriate." |
| Plan Summary. (Program Philosophy) Page PS-6, No.5 | Waste Reduction, b. Reduction and c. Recycling education could be done in conjunction with Solid Waste and Recycling Staff. | Added a statement in Chapter G to clarify that PHSS coordinates where appropriate; however, solid and hazardous waste issues can have different target audiences and require different educational approaches. "The County will seek to deliver technical assistance efficiently by coordinating among County programs (such as between the Hazardous Waste Program and Solid Waste Program) and with outside related agencies and non-profit organizations where appropriate." |
| Plan Summary. (Program Financing) Page PS-8, Table 2 | Funding Sources; (explain funding and impact if some funding went away.)<br>■ DOE Grants $285,989.<br>■ Tip Fee (Hazo House) $412,894.<br>■ Tip Fee (Other) $607,746.<br>■ Other Sources $23,812.<br>■ Total $1,330,447. | Reduced funding would limit the ability of the Hazardous Waste Program to provide collection, outreach, and other services. In recent years when DOE Grant funding has varied, the County has prioritized and modified program services and used Tip Fees to supplement the budget. No change was made to the Plan. |
| Plan Summary. (Program Services and Implementation Plan) page PS-10, Table 3 | Estimate Annual Costs, Explain why some projection have a large spread? $5,000 to $50,000 and $200,000 to $400,000. | Some estimated costs have a large range because Thurston County could scale the level of services to the available budget. In particular, the reassessment of resident and business needs could be conducted at a higher or lower level of detail. Costs for the Toxics Education and Outreach were based on historical spending, which has varied substantially over the past five years. No change was made to the Plan. |
| Chapter B. Table 2. Page B-7. | Trend shows customer usage up and pounds going down. Program looks like it is working. Will this equate to future cost of operation reduction? | Future cost of operation depends on a variety of factors. An increase in the number of customers tends to increase costs (staff time for customer interactions) while a decrease in pounds collected tends to decrease disposal costs. We are not able to predict these trends. No change was made to the Plan. |

| Section | SWAC Comment | County Response |
|---|---|---|
| Chapter B. Page B-13. | Household and Public Education; it appears it could be more efficient to combine the educational programs of HHW and solid waste and recycling staff. | Added a statement in Chapter G to clarify that PHSS coordinates where appropriate; however, solid and hazardous waste issues can have different target audiences and require different educational approaches. "The County will seek to deliver public education efficiently by coordinating among County programs (such as between the Hazardous Waste Program and Solid Waste Program) and with outside related agencies and non-profit organizations where appropriate." |
| Chapter B. Table 2. Page B-24. | Average Pounds of Hazardous Waste CEQSG? (CESQG) | This information is provided in Table 10 in the CESQG section of the chapter. |
| Chapter D. | If DOE Grants were to be reduced or go away would Tip Fees be increased to cover the short fall in revenue? | Tip fees charged to customers may not be increased, but in the past an additional amount of County funds from Tip Fees have been allocated to the Hazardous Waste Program to cover reductions in DOE grants. No change was made to the Plan. |
| Chapter D. Table 1. Page D-1. | Table 1 shows a reduced cost in 2012 compared to the previous years. Is this a future trend? | The table shows a reduced budget in 2012, which required a corresponding reduction in services. We cannot predict future trends for budget allocations to the Hazardous Waste Program. No change was made to the Plan. |
| Chapter F. Page F-2. Guiding Principles Item 7. | Encourage Efficiencies should be a part of effectiveness and minimize gaps. | We will add the term "efficiencies" to this principle. |
| Chapter F. Page F-2. Guiding Principles Item 7. | Combining the use of staff from Solid waste and Hazardous Waste departments makes a lot of sense when providing educational outreach. | Added a statement in Chapter G to clarify that PHSS coordinates where appropriate; however, solid and hazardous waste issues can have different target audiences and require different educational approaches. "The County will seek to deliver public education efficiently by coordinating among County programs (such as between the Hazardous Waste Program and Solid Waste Program) and with outside related agencies and non-profit organizations where appropriate." |
| Chapter A. | Looks OK | No change needed |
| Chapter C. | Looks OK | No change needed |
| Chapter E. | Looks OK | No change needed |

THURSTON COUNTY
WASHINGTON
SINCE 1852

COUNTY COMMISSIONERS

Cathy Wolfe
District One

Sandra Romero
District Two

Karen Valenzuela
District Three

PUBLIC WORKS
An Accredited Agency of the
American Public Works Association

Donavan T. Willcutt
Director

August 20th, 2013

Gerald Tousley
Public Health and Social Services
412 Lilly Road NE
Olympia, WA 98506

Re: *Solid Waste Advisory Committee Participation and Approval of the Thurston County Hazardous Waste Management Plan dated July 31, 2013*

Dear Mr. Tousley:

The Thurston County Solid Waste Advisory Committee (SWAC) offers this letter of support and recommendation for approval of the Thurston County Hazardous Waste Management Plan 2013.

SWAC's involvement began in 2008 with an invitation to all interested jurisdictions and individuals to participate in the initial stakeholder process. SWAC reviewed and commented on the draft Hazardous Waste Management Plan 2013 in July 2013.

We appreciate the efforts of Public Health and Social Services Department to involve SWAC in this planning process.

Sincerely,

Diana Wall
Chair of SWAC

9605 Tilley Road S., Suite C – Olympia, WA 98512 – (360) 867-2300 – FAX (360) 867-2291

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# Appendix 4
# Stakeholder Committee Documentation

The County carried out a stakeholder process to obtain input from all jurisdictions and organizations that the Hazardous Waste Program has partnered with as well as from the general public. The County formed an eight-member stakeholder committee that participated in seven open meetings from May to December 2008 to identify what services were working well and what services needed improvement. Stakeholder meetings were open to the public. The table below summarizes the topics covered in each meeting and provides links to meeting agendas, presentations, and minutes. Stakeholder meeting information was made available to the public on the County's website at http://www.co.thurston.wa.us/health/ehhw/hwPlan/meetings.html.

| Meeting Date | Summary of Meeting and Comments | Available Documents |
|---|---|---|
| May 15, 2008 | Group introductions were made and role of stakeholders and background information discussed. Presentation detailed Washington's Beyond Waste Plan, including initiatives and implementation. Stakeholders outlined next steps and agenda for next meeting. | ■ Agenda<br>■ Presentation<br>■ Minutes |
| June 12, 2008 | This meeting provided an overview of the required elements of hazardous waste plans and related those back to existing programs as well as the County's mission and vision statements. Stakeholders emphasized the importance of preventatively eliminating health risks by developing outcome-based programs to reduce use of hazardous materials and increase education to encourage use of alternatives and other best management practices. Agendas for next several meetings were outlined. | ■ Agenda<br>■ Presentation<br>■ Minutes |
| July 17, 2008 | This meeting highlighted Thurston County's demographics, and focused on goals and objectives of household hazardous waste education. Guiding principles and vision were discussed, and revisions were made to broaden the impact of waste management efforts. Stakeholders discussed the challenge of measuring household hazardous waste use and reduction, and Thurston County PHSS noted that annual waste sorts identify 27 different categories of hazardous waste that are tracked by the Department of Water and Waste Management. When conversing about program goals, stakeholders emphasized the importance of protecting people from hazardous waste, and goals were revised accordingly. Gaps and challenges were also discussed. | ■ Agenda<br>■ Guiding Principles<br>■ Household Hazardous Materials Goals and Objectives<br>■ Presentation<br>■ Minutes |

| Meeting Date | Summary of Meeting and Comments | Available Documents |
|---|---|---|
| September 18, 2008 | Guiding principles, goals, and objectives were discussed and revised to remove ambiguities and broaden the application of hazardous waste management programs to protect people and the environment. The Committee agreed that careful consideration of benefits as well as barriers and metrics were useful management tools, and expanded applicable objectives to capture additional data about the effectiveness of implemented programs. Collection data, as well as current programs and projects were detailed. | ■ Agenda<br>■ Guiding Principles<br>■ Household Hazardous Materials Goals and Objectives<br>■ Presentation<br>■ Minutes |
| October 16, 2008 | Waste collection goals and objectives were reviewed in this meeting. Revisions were made to emphasize prevention and proper management of hazardous waste to protect human and environmental health. Legal requirements of the Nonpoint Source Pollution Ordinance (Article 6) were discussed. | ■ Agenda<br>■ Presentation<br>■ Minutes |
| November 20, 2008 | Revisions of Goals and Objectives were finalized in this meeting. Identified gaps and established programs from the 1998 Plan were discussed, with an emphasis on "what is being done now" and how effective these programs had been over the last decade. | ■ Agenda<br>■ Presentation<br>■ Minutes |
| December 18, 2008 | The presentation during this meeting completed subject gaps, focusing on Technical Assistance, Enforcement, Education, and Program Evaluation. Additionally, the group gave final review to the Technical Assistance and Enforcement Goals and Objectives and also looked at Goals and Objectives for Program Evaluation. Beyond Waste indicators for hazardous waste reduction were also presented and discussed. | ■ Agenda<br>■ Presentation |

# Appendix 5
# Responses to Public Comments

Thurston County held a public comment period on the draft Thurston County Hazardous Waste Management Plan 2014 (Plan) from September 6 to September 20, 2013. Copies of the Plan were made available in the following locations:

- Timberland Regional libraries in Lacey, Olympia, Tumwater, and Yelm.
- Permit Assistance Center in Building One of Thurston County Courthouse (2000 Lakeridge Drive, Olympia, Washington 98502) from 8:00 a.m. to 12:30 p.m. on Monday through Friday.
- Public Health and Social Services Department (412 Lilly Road NE, Olympia, Washington 98506) during normal business hours.
- Thurston County website at **http://www.co.thurston.wa.us/health/ehhw/hwplan/index.html**.

Thurston County also emailed the Plan and a request for comments directly to representatives of key implementation partners and affected organizations: the City of Olympia, City of Tumwater, City of Lacey, Port of Olympia, LOTT (Lacey, Olympia, Tumwater, and Thurston County) Clean Water Alliance, and Olympic Region Clean Air Agency (ORCAA).

The County received more than 100 comments on the Plan, the vast majority of which were on the topic of used syringes discarded in public spaces. The comments are summarized and presented in the table below. The original comments can be obtained from the Thurston County's Public Health and Social Services Department by request.

| Number of Comments | Public Comment | County Response |
|---|---|---|
| 1 | Throughout the plan there are a couple of links to County web pages; some of the ones I attempted didn't work. | Links have been revised as necessary; however, future changes in the County website may make them invalid in the future. |
| | Years ago under the BPP program, the County used to prepare brief summary reports on businesses inspected and outcomes reviewed as part of the wellhead program coordination. I haven't seen one of those reports since ~2006. I do see industry specific reports. Have these replaced the geographic area inspections? | No change required. The County prepares brief annual reports for the BPP program as a whole summarizing outreach conducted in the current year. The County alternates its annual outreach focus between specific industries and geographic areas. The County will continue to focus inspections periodically on specific wellhead areas to support local wellhead protection programs. |

| Number of Comments | Public Comment | County Response |
|---|---|---|
| 107 | Used syringes discarded in public spaces, such as parks and streets, are a public health and safety problem, particularly in downtown areas. The public needle exchange is contributing to the problem by giving away instead of exchanging needles. The Hazardous Waste Management Plan should address syringes. Ideas mentioned by the public included research on how other similar cities are addressing this issue, ensuring the needle exchange requires a one-for-one exchange, a County-funded disposal program, 24-hour public drop boxes, a collection program funded by a $0.05-$0.10 fee for each needle, general clean-up of local parks and streets, a hotline and response service to collect needles reported by the public, and a targeted task force to create a plan to address needles.<br>*The letter sent by the Mayor of the City of Olympia regarding this issue is reproduced below.* | A new core program—Syringe Collection and Disposal—has been added to the Chapter I (Implementation Plan) under Household Hazardous Waste Collection to address this issue. Corresponding revisions have been made in Chapter G (Program Services) and the Plan Summary. In addition, Chapter H (Process for Updating the Plan) describes the process for revising the Plan as additional gaps or needs are identified in the future.<br><br>*Thurston County notes that the County-run needle exchange requires users to turn in a syringe in order to receive syringe. The County is not affiliated with or responsible for other organizations that may give away syringes instead of exchanging them.* |

**City of Olympia** | Capital of Washington State
P.O. Box 1967, Olympia, WA 98507-1967

September 27, 2013

Mr. Gerald Tousley, Hazardous Waste Section Supervisor
Thurston County Public Health and Social Services
412 Lilly Rd. NE
Olympia WA 98506

Dear Mr. Tousley:

I am writing on behalf of the City of Olympia to request that collection and disposal of used needles/syringes and drug paraphernalia be included in the Thurston County Hazardous Waste Management Plan as a Core Program, with associated data and gap analysis. The Plan should also include implementation strategies and funding for programs that provide residents, businesses, and others with multiple countywide venues, times, and options for safe and appropriate needle collection and disposal by trained staff.

The first guiding principle in the draft Plan states: "Protect public health, water resources, and the environment from use, storage, handling, transport, and disposal of hazardous materials." Improper disposal of unused needles poses a significant health threat for Olympia and Thurston County residents, visitors, staff, businesses, agencies, and the environment. Yet the draft Plan - which will guide Thurston County's hazardous waste programs and financial investments - does not appear to include any analysis, programs, or funding for needle/syringe disposal.

Here is a small sample of the emerging health threat we are witnessing, just in Olympia:

- In the past four weeks alone, Olympia parks staff collected over 200 needles and 110 pieces of drug paraphernalia from our city parks in areas frequented by families and children. Needles were randomly left on the ground, improperly placed in garbage containers, and thrown into bushes or tall grass.

- From conversations with our Downtown Ambassador Clean Team, we know that they and downtown businesses daily collect used needles/syringes from downtown sidewalks, planter boxes, and alleys. In the month of August alone, our Ambassadors collected nearly 140 abandoned needles from various downtown locations. (See attached photos as examples of what they are finding.)

- This week, the City's Probation Crew collected several hundred needles in a one-day clean-up of the downtown railroad tunnel.

- The Port of Olympia reports that in the last week of August, their staff collected about 20 needles from Port property.

- Recently, our Public Works Dispatcher received a call from a resident who found needles/syringes stuffed into a utility box at the edge of his property.

I am confident that a thorough data and gap analysis will reveal the growing extent of this public health and safety problem throughout Thurston County.

I urge the County, in its role as the responsible agency for public health, to include needle/syringe/drug paraphernalia collection and disposal as a Core Program in the updated Hazardous Waste Management Plan along with associated data, analysis, strategies and funding. I apologize for raising this issue so late in the drafting and review process. However, improper hazardous waste disposal of needles/syringes and drug paraphernalia appears to have increased in recent weeks, creating a significant and emerging health issue which is appropriate to address in the current update, regardless of the timing.

Thank you for your consideration.

Sincerely,

**Stephen H. Buxbaum**
**Mayor**

cc: Thurston County Board of Commissioners
Olympia City Council

cc-13-36-

# Images provided by City of Olympia

## September 2013

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# Appendix 6
# SEPA – Determination of Non-Significance

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THURSTON COUNTY
WASHINGTON
SINCE 1852

*Creating Solutions for Our Future*

COUNTY COMMISSIONERS

Cathy Wolfe
District One
Sandra Romero
District Two
Karen Valenzuela
District Three

**RESOURCE STEWARDSHIP DEPARTMENT**

Cliff Moore
Director

# DETERMINATION OF NONSIGNIFICANCE

**September 6, 2013**
**SEPA Case Number: 2013103787**
**Non-Project Action**
Published in the *Olympian* 9/6/13

## Thurston County Hazardous Waste Management Plan, 2013 Update

**Proponent:** Thurston County Public Health and Social Services Department
412 Lilly Road NE
Olympia WA 98506

**Description of Proposal:** The Plan is intended to help Thurston County achieve its vision of an environment free of health concerns related to hazardous material production, use and disposal. The 2013 Plan updates earlier plans adopted in 1998 and 1991, presenting an updated strategy for improving the management of hazardous materials in Thurston County homes and businesses. Since 1998 the amount of hazardous materials collected has grown and new trends have emerged. The updated Plan helps ensure that services meet changing local conditions, needs and priorities. The Plan addresses these issues through components related to public education, household and business collection of hazardous wastes, technical assistance and enforcement.

**Approval Process:** Prior to implementation, a resolution for adoption must be signed by Thurston County and the Cities of Bucoda, Lacey, Olympia, Rainier, Tenino, Tumwater and Yelm. The Plan is scheduled to be presented to the Board of County Commissioners for adoption on October 5, 2013. Upon adoption by the participating jurisdictions, the Plan will be submitted to the Washington State Department of Ecology for approval under state law. Comments on the Plan will be considered prior to adoption by the County. The Thurston County Solid Waste Advisory Board has recommended approval of the Plan.

**Additional Information:** Please visit the following website to view the proposed plan and for additional information and future public notices: http://www.co.thurston.wa.us/health/ehhw/hwplan/index.html. Copies of the Plan will be available at the public libraries in Lacey, Olympia, Tumwater and Yelm. The Plan may also be viewed at the Permit Assistance Center, Building One, Thurston County Courthouse, 2000 Lakeridge Drive, Olympia, WA between the hours of 8:00 a.m. and 12:30 p.m., Monday through Friday, and at the Public Health and Social Services Department, 412 Lilly Road NE, Olympia, WA during normal business hours.

**Comments:** Comments on this environmental determination should be sent either by regular mail to the Responsible Official listed below at the address on the bottom of this page or by email to kainm@co.thurston.wa.us. Please include the project number in any correspondence.

**Location of Proposal:** The Plan applies to the entire County, including the incorporated cities.
**Tax Parcel Number:** N/A

**Threshold Determination:** The lead agency for this proposal has determined that required compliance with applicable codes will mitigate all probable significant adverse impacts upon the environment. An Environmental Impact Statement is not required under RCW 43.21C.030(2)(C). **No mitigating conditions are needed.** This decision was made after review by the Lead Agency of a completed Environmental Checklist and other information on file with the Lead Agency. This information is available to the public on request as noted above.

**Jurisdiction:** Thurston County
**Lead Agency:** Resource Stewardship Department
**Responsible Official:** Mike Kain, Manager/Environmental Review Officer

**SEPA Case Number:** **2013103787**
**Date of Issue:** **September 6, 2013**
**Comment Period End Date:** **September 20, 2013**
**Appeal Deadline:** **September 27, 2013**

Michael E Kain
Environmental Review Officer Signature

**Appeals:** Threshold determinations may be appealed pursuant to TCC 17.09.160 if: (1) a written notice of appeal, meeting the requirements of TCC 17.09.160(4), and the appropriate appeal fee is received by the Thurston County Resource Stewardship Department within seven calendar days of the comment period end date and; (2) the person filing the appeal meets the requirements of TCC 17.09.160(2). Thurston County will not act on this proposal prior to the appeal deadline.

**Note:** The issuance of this Determination of Nonsignificance does not constitute approval of the proposed plan or any subsequent project. The applicant must comply with all applicable requirements of the Thurston County Code, as well as applicable Local, State and Federal requirements prior to receiving final approval.

cc: WA State Department of Ecology – SEPA Section
WA State Department of Commerce - CTED
Henderson Inlet, Shellfish District
Chehalis Tribe
Nisqually Tribe
Squaxin Island Tribe
Thurston County Regional Planning
Thurston County BoCC
Cliff Moore, County Manager
Thurston Co Environmental Health Dept, Gerald Tousley
Thurston County Planning, Cindy Wilson
City of Lacey Community Development
City of Olympia Long Range Planning
City of Tumwater Planning Department
City of Yelm Community Development
Town of Tenino
Town of Rainier
Town of Bucoda

# Appendix 7
# Glossary

| Term | Definition |
|---|---|
| **BPP** | Business Pollution Prevention program, Thurston County's technical hazardous waste assistance program for businesses. |
| **CESQG** | See *Conditionally Exempt Small Quantity Generator* |
| **CESQG Small Quantity Generator** | A business that meets all of the following requirements: (1) generates less than 220 pounds of dangerous waste in one month or batch; (2) generates less than 2.2 pounds of acute dangerous waste or extremely hazardous waste per month or batch; (3) stores less than 2,200 pounds of dangerous waste at any one time. The amount of hazardous chemicals used, type of product manufactured, air emissions, or number of people employed are not considered in this definition. Businesses that exceed these limits or that improperly dispose of their hazardous waste may be classified as medium quantity generators (MQG) or large quantity generators (LQG). |
| **Dangerous Waste** | Solid waste that the State of Washington has defined as dangerous waste or extremely hazardous waste under WAC 173-303-070 through WAC 173-303-100. The legal term *Dangerous Wastes* includes federal *Hazardous Wastes* and other wastes regulated as dangerous only by Washington State. |
| **Extended Producer Responsibility (EPR)** | A mandatory type of product stewardship that includes, at a minimum, the requirement that the producer's responsibility for their product extends to post-consumer management of that product and its packaging. There are two related features of EPR policy: (1) shifting financial and management responsibility, with government oversight, upstream to the producer and away from the public sector; and (2) providing incentives to producers to incorporate environmental considerations into the design of their products and packaging. Also see *Product Stewardship*. |
| **Hazardous Waste** | Waste that is defined as hazardous under the U.S. Environmental Protection Agency's (USEPA's), Code of Federal Regulations (Hazardous Waste Regulations), 40 CFR Part 261. Washington state is authorized by the federal government to regulate hazardous wastes. The term *Dangerous Waste* includes the federal *Hazardous Waste*. |
| **HHW** | See *Household Hazardous Waste*. |
| **Household Hazardous Waste (HHW)** | Waste that has hazardous characteristics or would otherwise be a listed hazardous waste except that it is generated (or produced) in a home, rather than a business. Hazardous characteristics include toxicity, ignitability, corrosiveness, and reactivity. |

| Term | Definition |
|---|---|
| **Large Quantity Generator (LQG)** | A business that meets any one of the following requirements: (1) generates 2,200 pounds or more of dangerous waste in one month or batch; (2) generates 2.2 pounds or more of acute dangerous waste or extremely hazardous waste per month or batch; (3) stores 2,200 pounds or more of dangerous waste at any one time; (4) stores more than 220 pounds of acute dangerous waste at any one time; (5) generates more than 220 pounds of dangerous waste in one month or batch AND generates any quantity of extremely hazardous waste or acute dangerous waste. |
| **LQG** | See *Large Quantity Generator*. |
| **Medium Quantity Generator (MQG)** | A business that meets all of the following requirements: (1) generates more than 220 pounds but less than 2,200 pounds of dangerous waste in one month or batch; (2) generates no acute dangerous waste or extremely hazardous waste; (3) stores less than 2,200 pounds of dangerous waste at any one time. |
| **Moderate Risk Waste (MRW)** | A class of solid waste that includes Household Hazardous Waste and dangerous waste generated by Conditionally Exempt Small Quantity Generators. MRW is any waste that exhibits any of the properties of hazardous waste but is exempt from regulation under RCW 70.105.010 solely because the waste is generated in quantities below the threshold for regulation. |
| **MQG** | See *Medium Quantity Generator* |
| **MRW** | See *Moderate Risk Waste* |
| **OSS** | On-site Septic System—a wastewater treatment system that processes household liquid waste in areas that are not connected to sewer systems. |
| **Product stewardship** | The act of minimizing health, safety, environmental and social impacts, and maximizing economic benefits of a product and its packaging throughout all lifecycle stages. The producer of the product has the greatest ability to minimize adverse impacts, but other stakeholders, such as suppliers, retailers, and consumers, also play a role. Stewardship can be either voluntary or required by law. Also see *Extended Producer Responsibility*. |
| **RCW** | The Revised Code of Washington is the codification of laws enacted by the Washington State Legislature. |
| **Solid Waste** | All putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials. |
| **Solid Waste Advisory Committee (SWAC)** | Thurston County's SWAC is a 14-member committee made up of elected officials, citizens, and industry representatives. The SWAC reviews all issues affecting Thurston County's solid and hazardous waste programs and makes recommendations to the Thurston County Board of Commissioners. |
| **Tipping fee** | The price paid per ton, cubic yard, or other measurement to dispose of waste at a transfer station, incinerator, or landfill. |

| Term | Definition |
|---|---|
| **Urban Growth Area (UGA)** | Unincorporated area designated to be annexed into an incorporated city at some time in the future to accommodate future urban growth. |
| **WAC** | The Washington Administrative Code; the codification of regulations adopted by Washington State administrative agencies. |
| **WARC** | Thurston County Waste and Recovery Center is a one-stop campus where residents can dispose of garbage, yard waste, recyclables, and dangerous waste. |
| **XQG** | A business that previously reported to the Washington State Department of Ecology as a generator of dangerous waste but that does not currently generate dangerous waste. |

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# Appendix 8
# Ecology Planning Checklist

| Local Hazardous Waste Plan (Master Section) Checklist | Page Number in Plan |
|---|---|
| **6** | |
| 1. Purpose of the Plan<br>Comments: | A2 |
| 2. General Background of the Planning Area<br>Comments: | A2–A14 |
| 3. Public Participation Process in Plan Development<br>Comments: | A14–A16 |
| **B. Analysis of Current Conditions** | |
| 1. Moderate Risk Waste Inventory<br>Comments: | B3–B32 |
| a. Household Hazardous Waste (Use available local data and information provided by Ecology)<br>Comments: | B3–B20 |
| 1. Waste quantity, type, and management practices.<br>Comments: | B3–B17 |
| 2. Documentation of the waste categories and volumes currently managed.<br>Comments: | B4–B14 |
| 3. Potentials and constraints for improving waste management.<br>Comments: | B17–B19 |
| 4. Changes from the last plan.<br>Comments: *Changes from the last plan are consolidated at the end of Chapter B* | B38–B39 |
| b. Small Quantity Generators (Use available local data and information provided by Ecology)<br>Comments: | B20–B31 |
| 1. Waste quantities, type, and management practices.<br>Comments: | B21–B30 |
| 2. Documentation of the waste categories and volumes currently being managed.<br>Comments: | B23–B26 |
| 3. Identification of targeted wastes and waste sources.<br>Comments: | B20–B23, B27 |
| 4. Potentials and constraints for improving waste management.<br>Comments: | B30–B31 |
| 5. Changes from the last plan.<br>Comments: *Changes from the last plan are consolidated at the end of Chapter B* | B38–B39 |

| | |
|---|---|
| 2. The Hazardous Waste Inventory<br>(The information in this section is to be provided by Ecology)<br>Comments: | B30–B35 and associated appendices |
| a. Dangerous Waste Generators: List of businesses in the jurisdiction that have an EPA/State Identification number issued under Chapter 173-303 WAC, and a summary of wastes they generate.<br>Comments: | B32–B33<br>Appendix 10 |
| b. Remedial Action Sites: List of locations listed by Ecology's Toxics Cleanup Program as needing investigation or undergoing hazardous waste cleanup activity.<br>Comments: | B33–B35<br>Appendix 11 |
| c. Transporters: List of hazardous waste transportation companies (registered with Ecology) which service businesses in the jurisdiction.<br>Comments: | B36<br>Appendix 12 |
| d. Facilities: List of facilities which recycle, treat, store and/or dispose of hazardous waste generated in the jurisdiction.<br>Comments: | B37 |
| e. Zone Designations: Description of the eligible zones designated according to RCW 70.105.225.<br>Comments: | B37–B38 |
| **C. Legal Authority for the Program** | |
| 1. Evaluation of existing regulations and regulatory program.<br>Comments: | C2–C11 |
| 2. Current Enforcement Program.<br>Comments: | C11–C13 |
| 3. Moderate risk waste ordinance(s).<br>Comments: | C6–C9 |
| **D. Financing of the Program** | |
| 1. Current revenue source(s) for the program.<br>Comments: | D2–D3 |
| 2. Future sources or alternative revenue sources for programs.<br>Comments: | D4–D5 |
| **E. Governance Structure of Jurisdiction** | |
| 1. Legal authority for plan implementation decisions.<br>Comments. | E2–E3<br>Appendix 2 |
| **F. Program Philosophy** | |
| 1. The vision or mission of the plan (broadly stated).<br>Comments. | F2 |
| **G. Program Services** | |
| 1. Services this plan proposes to offer (broadly stated).<br>Comments. | G3–G11 |
| **H. Process for Updating Each Section of the Plan** | |
| 1. When will the plan be updated and under what circumstances.<br>Comments. | H2–H3 |

| Local Hazardous Waste Plan (Implementation Section) Checklist | Included in plan? |
|---|---|
| **A. Program Philosophy** | |
| 1. The mission and/or vision of the plan.<br>Comments: | F2 |
| 2. Guiding principles of the plan.<br>Comments: | F2–F3 |
| **B. Strategic Goals / Elements of the Plan** | |
| 1. Household hazardous waste collection element.<br>Comments: | I4–I8 |
| 2. Household and public education element.<br>Comments: | I9–I12 |
| 3. Small business technical assistance element.<br>Comments: | I13–I17 |
| 4. Small business collection assistance element.<br>Comments: | I18–I20 |
| 5. Enforcement element.<br>Comments: | I21–I23 |
| 6. Used oil recycling element.<br>Comments: | I24–I25 |
| **C. Programs and Milestones** | |
| 1. Programs selected to implement to meet your objectives.<br>Comments: *Integrated into each element section* | I3–I33 |
| 2. Lead agency responsible for coordinating plan implementation.<br>Comments: *Also integrated into each element section* | I2 |
| 3. Implementing entity for each program selected.<br>Comments: *Integrated into each element section* | I3–I31 |
| **D. Alternative Programs (Optional, but Highly Recommended)** | |
| 1. List of alternative programs not chosen to be implemented at this time, but would be if finances or priorities change.<br>Comments: *Integrated into each element section* | I3–I31 |
| **E. Annual Budgets** | |
| 1. Funding source, cost and number of employees needed for programs to be implemented under the plan.<br>Comments: *Integrated into each element section; costs summarized in a table* | I3–I33 |

| Appendices and Other Required Documentation Checklist | Included in plan? |
|---|---|
| 1. Documentation of Local Government Plan Update approval by participating jurisdictions.<br>Comments: | Appendix 2 |

| | |
|---|---|
| 2. SEPA compliance.<br>Comments: | Appendix 6 |
| 3. Response summary to public comment.<br>Comments: | Appendix 5 |

| **Submittal Package Checklist** | **Included?** |
|---|---|
| A. Transmittal ***letter.*** | Yes (Appendix 1) |
| B. Copies of the proposed Plan or Amendment.<br>• Three copies (if a standalone plan).<br>• Five copies (if combined with Solid Waste Plan). | Yes ( X ) |
| C. SEPA Documents, including Environmental Checklist and Determination of Non-Significance. (One copy should accompany each plan submitted as outlined in B above). | Yes (Appendix 6) |
| D. Documentation of Local Government Plan Update approval by participating jurisdictions. (One copy should accompany each plan submitted as outlined in B above). | Yes (Appendix 2) |
| E. Completed checklists of steps taken. | Yes (Appendix 8) |

# Appendix 9
# Hazardous Substances and Materials

## Typical Hazardous Substances

| Substance(s) or Class(es) of Substances | Primary Hazards | | | |
|---|---|---|---|---|
| | Flammable | Toxic | Corrosive | Reactive |
| *Group 1: Repair and Remodeling* | | | | |
| Adhesives, Glues, Cements | X | X | | |
| Roof Coatings, Sealants | | X | | |
| Caulkings and Sealants | | X | | |
| Epoxy Resins | X | X | | X |
| Solvent Based Paints | X | X | | |
| Solvents and Thinners | X | X | X | X |
| Paint Removers and Strippers | | X | X | |
| *Group 2: Cleaning Agents* | | | | |
| Oven Cleaners | | X | X | |
| Degreasers and Spot Removers | X | X | X | |
| Toilet, Drain, and Septic Cleaners | | X | X | |
| Polishes, Waxes, and Strippers | X | X | X | |
| Deck, Patio, and Chimney Cleaners | X | X | X | |
| Solvent Cleaning Fluid | X | X | X | X |
| Household Bleach (< 8% solution) | | | X | |
| *Group 3: Pesticides* | | | | |
| Insecticides | X | X | | |
| Fungicides | | X | | |
| Rodenticides | | X | | |
| Molluscides | | X | | |
| Wood Preservatives | | X | | |
| Moss Retardants | | X | X | |
| Herbicides | | X | | |
| Fertilizers | | X | X | X |
| *Group 4: Auto, Boat, and Equipment Maintenance* | | | | |
| Batteries | | X | X | X |
| Waxes and Cleaners | X | X | X | |
| Paints, Solvents, and Cleaners | X | X | X | X |
| Additives | X | X | X | X |
| Gasoline | X | X | X | X |
| Flushes | X | X | X | X |
| Auto Repair Materials | X | X | | |

| Substance(s) or Class(es) of Substances | Primary Hazards | | | |
|---|---|---|---|---|
| | Flammable | Toxic | Corrosive | Reactive |
| Motor Oil | | X | | |
| Diesel Oil | X | X | | |
| *Group 5: Hobby and Recreation* | | | | |
| Paints, Thinners, and Solvents | X | X | X | X |
| Pool/Sauna Chemicals | X | X | X | X |
| Photo Processing Chemicals | X | X | X | X |
| Glues and Cements | X | X | X | |
| Inks and Dyes | X | X | | |
| Glazes | | X | | |
| Chemistry Sets | X | X | X | X |
| Pressurized Bottled Gas | X | X | | X |
| White Gas | X | X | | X |
| Charcoal Lighter Fluid | X | X | | |
| Batteries | | X | X | X |
| *Group 6: Persistent Bioaccumulative Toxins (PBTs)* | | | | |
| Mercury (Auto Switches, Barometers, Button Cell Batteries, CFLs & Fluorescent Tubes; Thermometers; Thermostats) | | X (all) | X (all) | |
| Lead (Lead Acid Car Batteries, Fishing Weights, Unused Lead Shot, Unused Traffic Paint, Unused Art Supplies for Stained Glass and Lead Pottery Glaze) | | X (all) | | |
| Polybrominated Diphenyl Ether (PBDEs) (Televisions, Computers, Other Electronic Products) Note: These items should be treated as electronics and recycled. | | X (all) | | |
| Polycyclic Aromatic Hydrocarbons (PAH) (Roofing Sealant, Pavement Sealant, Used Motor Oil) | | X (all) | | |
| Polychlorinated biphenyl (PCB) (Caulking and light ballasts manufactured prior to 1979) | | X (all) | | |
| *Group 7: Miscellaneous* | | | | |
| Ammunition | X | X | X | X |
| Asbestos | | X | | |
| Fireworks | X | X | X | X |
| Marine Aerial Flares | X | X | | |
| Pharmaceuticals | | X | | |
| Non-controlled Substances | | X | | |
| Sharps | | | | |
| Personal Care Products | X | X | X | |

*Table compiled from Washington Department of Ecology "Guidelines for Developing and Updating Local Hazardous Waste Plans," Publication #10-07-006, Revised January 2010.*

# Materials Currently Accepted at HazoHouse

Materials currently accepted at HazoHouse include the following:

- Acids and bases
- Adhesives and glues
- All types of batteries EXCEPT standard alkaline
- Auto-products (motor oil, oil filters, antifreeze, car batteries, brake fluid)
- Contaminated kerosene and gasoline
- Dental amalgam scraps
- Flammable solids and liquids
- Fluorescent light tubes, yard light bulbs and their ballasts
- Oil-based paints (no latex paint unless it was manufactured before 1989) and paint-related materials
- Oxidizers
- Pesticides and poisons
- Pool and hobby chemicals
- Products containing mercury
- Propane tanks equal or smaller than the standard 20 lb. barbecue tank
- Solvents and cleaning supplies
- Thinners and solvents
- X-ray and photo fixer containing silver

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# Appendix 10
# Dangerous Waste Generators in Thurston County

The Department of Ecology requires that all MQG and LQG businesses submit reports about their dangerous waste and activities. Some CESQGs also submitted reports in 2012, although most CESQGs are not required to do so. In January 2013, Ecology's databases showed that Thurston County contained:

- 8 large quantity generators
- 15 medium quantity generators
- 51 small quantity generators that reported to Ecology
- 26 businesses considered "ex-generators" (XQG) because they had previously reported generation to Ecology but did not do so in the most recent reporting year.

| Common Name | Generator Status | Location Address | Location City | Location Zip |
|---|---|---|---|---|
| Target Store 1355 | LQG | 665 Sleater Kinney Rd SE | Lacey | 98503 |
| Ch2O Inc | LQG | 8820 OLD 99 HWY SE | Olympia | 98501 |
| Allisons Norge Village | LQG | 116 TURNER ST NE | Olympia | 98506 |
| Target Store 0607 | LQG | 2925 Harrison Ave NW | Olympia | 98502 |
| Providence St Peter Hospital | LQG | 413 N LILLY RD | Olympia | 98506 |
| Olympia Port former Cascade Pole | LQG | 1503 Marine Dr NE | Olympia | 98501 |
| The Evergreen State College Evergreen PK | LQG | 2700 EVERGREEN PKWY NW | Olympia | 98505-0002 |
| Aquatic Co | LQG | 801 NORTHERN PACIFIC | Yelm | 98597 |
| Wal Mart Store 3531 | MQG | 1401 GALAXY DR NE | Lacey | 98503 |
| CHEVRON 99975 | MQG | 1601 MARVIN RD NE | Lacey | 98516 |
| Home Depot 5650 | MQG | 9303 Orion Dr NE | Lacey | 98516 |
| Home Depot HD4742 | MQG | 1450 Marvin Rd NE | Lacey | 98516 |
| F V Fal 91 Moored Vessel Kopcakoe | MQG | Totten Inlet | Olympia | 98502 |
| GROUP HEALTH COOP OLYMPIA MED CTR | MQG | 700 LILLY RD NE | Olympia | 98506 |
| Home Depot 4708 | MQG | 1325 FONES RD | Olympia | 98501 |
| Crown Cork & Seal Co Inc Olympia | MQG | 1202 FONES RD SE | Olympia | 98501-2716 |
| WA DES Division of Capitol Facilities | MQG | 12TH & FRANKLIN OB 2 Bldg | Olympia | 98501-1019 |
| Home Depot 4724 | MQG | 1101 Kingswood Dr SW | Tumwater | 98512 |
| WA DOT Materials Laboratory | MQG | 1655 S 2ND AVE | Tumwater | 98512 |

| Common Name | Generator Status | Location Address | Location City | Location Zip |
|---|---|---|---|---|
| Winsor Fireform LLC M | MQG | 3401 MOTTMAN RD SW | Tumwater | 98512 |
| WA DOT Dist 3 HQ | MQG | 5720 CAPITOL BLVD | Tumwater | 98504-7440 |
| Walmart Store 3850 | MQG | 5900 Littlerock Rd SW | Tumwater | 98512 |
| Wal Mart Supercenter 3705 | MQG | 17100 State Rt 507 SE | Yelm | 98597 |
| Arco 4435 | SQG | 402 SLEATER KINNEY RD | Lacey | 98503 |
| Kmart 3389 | SQG | 4141 MARTIN WAY E | Lacey | 98516 |
| South Bay Press | SQG | 4003 8TH AVE SE | Lacey | 98503-1101 |
| Panorama City | SQG | 1751 CIRCLE LANE SE | Lacey | 98503 |
| Lacey Door & Millwork | SQG | 3960 12TH AVE SE BLDG 1 | Lacey | 98503 |
| FedEx Express - OLM | SQG | 7820 29TH AVE NE | Lacey | 98516 |
| Lacey City Shop | SQG | 4708 LACEY BLVD SE | Lacey | 98503 |
| Target Import Warehouse T600 | SQG | 3500 MARVIN RD NE | Lacey | 98516 |
| Sears Unit 2219/6021 | SQG | 651 SLEATER KINNEY RD SE STE 1300 | Lacey | 98503-2307 |
| Albertsons 0480 | SQG | 6100 Pacific Ave SE | Lacey | 98503 |
| Rite Aid #5280 | SQG | 8230 Martin Way E | Lacey | 98516 |
| Rite Aid #5281 | SQG | 4776 Whitman Lane SE | Lacey | 98513 |
| Rite Aid #5279 | SQG | 691 Sleater Kinney Rd SE | Lacey | 98503 |
| Test Site | SQG | 300 Desmond Dri | Lacey | 98513 |
| Puget Sound Energy Lakewood Svc Center | SQG | 11705 83rd Ave SW | Lakewood | 98498 |
| Rite Aid #5278 | SQG | 305 Cooper Point Rd NW | Olympia | 98502 |
| West Marine 01288 | SQG | 1530 Black Lake Blvd SW | Olympia | 98502 |
| SWANTOWN MARINA AND BOATWORKS | SQG | 650 MARINE DR NE | Olympia | 98501 |
| Chevron 90292 | SQG | 704 CAPITOL WAY S | Olympia | 98501 |
| Thurston Cnty Rd & Trans Svc Dept Equi | SQG | 9605 TILLEY RD SW | Olympia | 98502 |
| South Puget Sound Comm College | SQG | 2011 MOTTMAN RD SW | Olympia | 98512 |
| WA L&I Industrial | SQG | 805 PLUM ST SE HC 472 | Olympia | 98504-1528 |
| UPS Tumwater | SQG | 7383 NEW MARKET | Olympia | 98501 |
| Lacey Auto Body Shop Inc | SQG | 512 DEVOE ST SE | Olympia | 98501-2017 |
| Terrys Automotive | SQG | 2021 W HARRISON | Olympia | 98502-4528 |
| Albertsons 0415 | SQG | 3520 Pacific Ave SE | Olympia | 98501 |
| Capital Medical Center | SQG | 3900 CAPITAL MALL DR SW | Olympia | 98502-8654 |
| Black Lake Auto Inc | SQG | 5612 BLACK LAKE BLVD SW | Olympia | 98502-2265 |
| PSE Olympia SVC | SQG | 2711 PACIFIC AVE | Olympia | 98507 |

| Common Name | Generator Status | Location Address | Location City | Location Zip |
|---|---|---|---|---|
| Titus Will Chevrolet Sales Inc | SQG | 2425 CARRIAGE LP SW | Olympia | 98502 |
| Lloyds Automotive Service | SQG | 425 STATE AVE | Olympia | 98501-1199 |
| Summit Lake Antiques | SQG | 10724 SUMMIT LAKE RD NW | Olympia | 98502 |
| Mr Oak Antiques | SQG | 4213 GOLDSBY SW | Olympia | 98512 |
| Weyerhaeuser NR Mima Nursery | SQG | 8844 GATE RD SW | Olympia | 98512 |
| Soloy LLC | SQG | 450 PAT KENNEDY WAY SW | Olympia | 98501-7298 |
| Pacific Cleaners | SQG | 3530 PACIFIC AVE SE | Olympia | 98501 |
| Sherwin Williams 8136 | SQG | 3949 MARTIN WAY E | Olympia | 98506 |
| Garys Tire | SQG | 4325 MARTIN WAY | Olympia | 98506-5394 |
| WA ECY Olympia | SQG | 300 DESMOND DR SE | Olympia | 98504-7710 |
| Ricks Towing & Automotive Inc | SQG | 310 J SOUTH BAY RD NE | Olympia | 98506-1216 |
| US DOE BPA Olympia Substation | SQG | 5240 TROSPER RD SW | Olympia | 98512-6630 |
| Rainier Dodge | SQG | 2550 CARRIAGE LOOP SW | Olympia | 98502-1101 |
| Qwest Corporation W00369 | SQG | 411 KAISER RD SW | Olympia | 98502-5071 |
| Four Star Accessory Overhaul | SQG | 7711 NEW MARKET ST SW | Tumwater | 98501-7228 |
| Dart Container Corp | SQG | 600 ISRAEL RD SE | Tumwater | 98501 |
| Pepsi Northwest Beverages LLC | SQG | 3003 RW JOHNSON BLVD | Tumwater | 98512 |
| Chevron 90956 | SQG | 670 TROSPER RD | Tumwater | 98512 |
| Cardinal CG | SQG | 700 PAT KENNEDY WAY SW | Tumwater | 98501 |
| New Market Vocational Skill | SQG | 7299 NEW MARKET ST SW | Tumwater | 98501 |
| Tumwater School Dist Admin Offices | SQG | 419 LINWOOD AVE SW | Tumwater | 98502 |
| Albertsons #407 | SQG | 705 Trosper Rd SW | Tumwater | 98511 |
| Rite Aid 5286 Yelm Ave | SQG | 909 YELM AVE E | Yelm | 98597 |
| WA DFW LACEY | XQG | 6420 CARPENTER RD CONSTR SHOP | Lacey | 98503 |
| Costco Wholesale 740 | XQG | 1470 Marvin Rd NE | Lacey | 98516 |
| Lacey Laundromat Former | XQG | 5800 Pacific Ave SE | Lacey | 98503 |
| Puget Pharmacy Services | XQG | 1751 Circle Lane SE | Lacey | 98503 |
| WA DNR Cedar Creek Correction | XQG | 12200 BORDEAUX RD | Littlerock | 98556-0105 |
| MARS of Washington LLC | XQG | 7827 A Arab Dr SE | Olympia | 98501 |
| WSDA State Federal Lab | XQG | 3939 CLEVELAND AVE SE | Olympia | 98501 |
| WA DNR Aviation | XQG | 7613 OLD 99 HWY SE | Olympia | 98501 |
| Kelly Moore Paint Co Inc Olympia | XQG | 3740 Martin Way | Olympia | 98506 |
| Olympia Port | XQG | 915 WASHINGTON ST NE | Olympia | 98501 |

| Common Name | Generator Status | Location Address | Location City | Location Zip |
|---|---|---|---|---|
| CHEVRON 95311 | XQG | 1018 PLUM ST SE | Olympia | 98501-1558 |
| Qwest Corporation W00730 | XQG | 2817 MARTIN WAY | Olympia | 98503 |
| Chevron 206183 | XQG | 1002 CAPITOL WAY S | Olympia | 98512 |
| WA Parks Southwest Region HQ | XQG | 11838 TILLEY RD S | Olympia | 98512 |
| Arco 5303 | XQG | 1725 EVERGREEN PARK DR | Olympia | 98502 |
| Olympia Radiology | XQG | 3525 ENSIGN RD NE UNIT B | Olympia | 98506-5065 |
| WA DFW | XQG | 1111 WASHINGTON ST SE | Olympia | 98504-7007 |
| WA AGR Thurston 1 Pesticide Coll | XQG | 9700 TILLEY RD SW | Olympia | 98502 |
| Olympia Dry Cleaners | XQG | 606 E Union Ave SE | Olympia | 98501 |
| Olympic Pipe Line Co Olympia Station | XQG | 11710 VAIL CUTOFF RD | Rainier | 98576 |
| Costco Wholesale 64 | XQG | 5500 LITTLE ROCK RD SW | Tumwater | 98512 |
| Shell Oil Products US Tumwater Terminal | XQG | 7370 LINDERSON WAY SW | Tumwater | 98501-5702 |
| Andy Johnson & Co Inc | XQG | 2450 MOTTMAN RD SW | Tumwater | 98512 |
| Todd Robinson Painting Inc | XQG | 5030 Joppa St SW | Tumwater | 98512 |
| DLB Eearthwork Co | XQG | 2823 29th Ave SW | Tumwater | 98512 |
| Penske Truck Leasing Co LP | XQG | 801 NORTHERN PACIFIC RD BLDG 2A | Yelm | 98597-1180 |

# Appendix 11
# Contaminated Sites in Thurston County

As of February 2012, Thurston County contained 207 confirmed or suspected contaminated sites. This appendices presents a list of these sites by type of contaminant and cleanup stage. Information was provided by the Thurston County GeoData Center, "Confirmed or Suspected Contaminated Sites," February 2012.

## Thurston County Contaminated Sites List - Updated February 7, 2012

| FSID# | CleanupSiteName | Address | City | ZipCode | SiteStatus | Media Affected | Contaminant(s) |
|---|---|---|---|---|---|---|---|
| 243 | EDB 1 THURSTON CNTY | 3323 YELM HWY SE | OLYMPIA | 98501-4948 | Awaiting Cleanup | GW | 6 |
| 244 | RESTOVER TRUCK STOP | 2725 93RD AVE SW | OLYMPIA | 98512 | Cleanup Complete-Active O&M/Monitoring | GW, SOIL | 7 |
| 1385 | CASCADE POLE INC MCFARLAND | 1100 WASHINGTON ST | OLYMPIA | 98501-2282 | Construction Complete-Performance Monitoring | GW, SW, SOIL | 1, 3, 4, 7, 8, 10, 11 |
| 1386 | THE OSTROM COMPANY | 8323 STEILACOOM RD SE | LACEY | 98513-2099 | Awaiting Cleanup | GW, SOIL | 3, 6, 7 |
| 1387 | WEYERHAEUSER CO BOX PLANT | 7727 UNION MILLS RD SE | OLYMPIA | 98503-1886 | Cleanup Started | SOIL, GW, SW | 3, 7 |
| 1388 | CEDAR CREEK CORRECTIONS DNR | BORDEAUX RD | LITTLEROCK | 98556 | Awaiting Cleanup | SOIL, GW, SW, AIR | 2, 11 |
| 1391 | CITIFOR Inc | 13120 TILLEY RD S | OLYMPIA | 98512-1029 | Cleanup Started | SOIL, GW | 1, 3, 4, 7, 11, 15 |
| 1394 | PUGET SOUND POWER & LIGHT | 2703 PACIFIC AVE SE | OLYMPIA | 98501-2036 | Awaiting Cleanup | GW, SW, SOIL | 5 |
| 1401 | RHODES CHEMICAL CO | 10500 GATE RD SW | ROCHESTER | 98512-9214 | Awaiting Cleanup | SOIL, GW, SW, AIR | 8 |
| 1402 | RHODES CHEMICAL CO BARN | 10534 GATE RD SW | ROCHESTER | 98512-9214 | Awaiting Cleanup | SOIL, GW, SW, AIR | 8 |
| 1404 | PATTISON LAKE EDB | FAIROAKS RUMAC & KELLY BEACH R | LACEY | 98503 | Cleanup Started | GW, SW | 6 |
| 1407 | HYTEC LITTLEROCK | 13434 HALOKUNTUX LN SW | OLYMPIA | 98512-5944 | Cleanup Started | SOIL, GW, SW, AIR | 2, 3, 7, 9 |
| 1411 | LACEY VALVE GRINDING | 921 BOWKER ST SE | LACEY | 98503-1211 | Awaiting Cleanup | SOIL, GW | 3 |
| 1416 | LACEY LAUNDROMAT | 5800 PACIFIC AVE SE STE 6 | LACEY | 98503-1341 | Cleanup Started | GW, SOIL, AIR | 2 |
| 1418 | SHELL OIL PRODUCTS US TUMWATER TERM | 7370 LINDERSON WAY SW | TUMWATER | 98501-5702 | Cleanup Started | SOIL, GW | 7 |
| 1420 | BLACK LAKE GROCERY | 4409 BLACK LAKE BLVD SW | OLYMPIA | 98512-2250 | Cleanup Started | GW, SOIL | 7 |
| 1425 | WEST OLYMPIA LANDFILL FORMER | HWY 101 & BLACK LAKE BLVD | OLYMPIA | 98502 | Cleanup Started | SOIL, GW, SW | 3, 5 |
| 1429 | WAREHOUSE ONE PORT | N WASHINGTON & B AVE | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 7 |
| 1436 | INDUSTRIAL PETROLEUM DISTRIBUTORS | 1117 W BAY DR NW | OLYMPIA | 98502-4668 | Cleanup Started | SOIL, GW | 3, 7, 11 |
| 1437 | US WEST CAPITOL PEAK | CAPITOL PEAK | OLYMPIA | 98502 | Awaiting Cleanup | SOIL, GW | 7 |
| 1439 | UNOCAL SERVICE STATION 0266 | 924 CAPITOL WAY | OLYMPIA | 98501-1210 | Cleanup Started | SOIL, GW | 3, 7, 9, 11 |
| 1442 | TUMWATER CITY N 5TH & BATES | N 5TH AVE & BATES ST | TUMWATER | 98512 | Cleanup Started | SOIL, GW | 3, 6, 7, 9, 11 |
| 1443 | PUGET POWER ELD INLET SUBSTATION | 14TH AVE NW & KAISER RD | OLYMPIA | 98502 | Awaiting Cleanup | GW, SOIL | 5, 7 |
| 1446 | OLYMPIA DRY CLEANERS | 606 E UNION AVE SE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 2, 7 |
| 3749 | BOULEVARD NURSERY | 2021 BOULEVARD RD SE | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 3, 6 |
| 4081 | CLARKE RESIDENCE | 819 GOVERNOR STEVENS AVE SE | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 7 |
| 4267 | FRANKS PROPERTY | 2921 54TH AVE SW | TUMWATER | 98512 | Awaiting Cleanup | SOIL, GW | 4, 7 |
| 4470 | FORMER MERVYNS WESTIFELD CAPITAL MALL | 625 BLACK LAKE BLVD SW | OLYMPIA | 98502 | Awaiting Cleanup | SOIL | 7 |
| 4637 | TUMWATER FALLS PARK RECLAIMED WATER LINES | 100 DESCHUTES WAY SW | TUMWATER | 98501 | Awaiting Cleanup | SOIL, GW | 4, 11 |
| 5076 | FORMER WSDOT MATERIALS TESTING FACILITY | 5313 LITTLEROCK RD SW | TUMWATER | 98502 | Awaiting Cleanup | SOIL, GW | 2 |
| 6518 | BORDEAUX DUMP HYTEC | 13434 HALOKUNTUX LN | OLYMPIA | 98512 | Cleanup Started | SOIL, GW | 4, 11 |
| 6719 | J & J SALVAGE DRUMS | 832 73RD AVE SE | OLYMPIA | 98501 | Awaiting Cleanup | SOIL | 7 |
| 6899 | FABER & SONS RECYCLING ROCHESTER | 10033 180TH WAY SW | ROCHESTER | 98579 | Awaiting Cleanup | SOIL | 4 |
| 7628 | NW PIPELINE GP EVERGREEN SHORES MS | 6149 DELPHI RD SW | OLYMPIA | 98512 | Cleanup Started | SOIL | 3 |
| 9745 | STACEY PROPERTY | 2651 MARTIN WAY E | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 2 |
| 9945 | MERIDIAN CAMPUS | WILLAMETTE DR NE & 31ST AVE NE | LACEY | 98503 | Cleanup Started | SOIL | 3, 4 |
| 11334 | PACIFIC PRIDE MARVIN RD | 2135 MARVIN RD NE | OLYMPIA | 98516 | Awaiting Cleanup | SOIL, GW | 7 |
| 12685 | PSE ROW LOT 140 9101 STEILACOOM RD | 9101 STEILACOOM RD SE | OLYMPIA | 98513 | Awaiting Cleanup | SOIL | 7 |

# Thurston County Contaminated Sites List - Updated February 7, 2012

| FSID# | CleanupSiteName | Address | City | ZipCode | SiteStatus | Media Affected | Contaminant(s) |
|---|---|---|---|---|---|---|---|
| 13510 | PORT OF OLYMPIA TEXACO BULK STORAGE FACILITY | 915 WASHINGTON ST NE | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 7 |
| 16350 | PSE OLYMPIA SWITCHING SUBSTATION | 917 FERRY ST SW | TUMWATER | 98512 | Awaiting Cleanup | SOIL | 5, 7 |
| 16611 | LOTT CONSTRUCTION PROJECT ROW MARTIN WAY | 6100 BLK OF MARTIN WAY E | LACEY | 98516 | Awaiting Cleanup | SOIL, GW | 7 |
| 16803 | VACANT PROPERTY ROCHESTER | 8843 173RD AVE SW | ROCHESTER | 98579 | Awaiting Cleanup | SOIL, GW | 7, 11 |
| 19107 | WA STATE DEPT INFORMATION SVCS OFFICE BLDG | 1400 JEFFERSON ST SE | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 7 |
| 20682 | CARLYON BEACH HOMEOWNERS ASSN SHOP | 9801 OVERLOOK DR NW | OLYMPIA | 98502 | Awaiting Cleanup | SOIL, GW | 7 |
| 22814 | FRANKLIN STREET ROW | FRANKLIN ST NEAR LOTT PLANT | | | | SOIL | 4, 7, 11 |
| 24747 | PORT OF OLYMPIA BERTHS 2 & 3 | 915 WASHINGTON ST NE | OLYMPIA | 98501 | Cleanup Started | SOIL | 3 |
| 529384 | PACIFIC POWDER | 13120 TILLEY RD S | | | | SOIL | 7 |
| 904387 | 2040 MOTTMAN RD | 2040 MOTTMAN RD | OLYMPIA | 98512 | Awaiting Cleanup | GW | 7 |
| 1158414 | CAPITAL CITY STUDIOS | 911 4TH AVE E | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 3, 7, 9 |
| 1571525 | PHOENIX INN | 415 CAPITOL WAY N | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 3, 7, 9, 11 |
| 1851774 | ARCO 4435 | 402 SLEATER KINNEY RD | LACEY | 98503 | Cleanup Started | SOIL, GW | 7 |
| 1869319 | CLEARWOOD COMMUNITY ASSOCIATION | 18502 BLUE HILLS DR | | | | SOIL | 7 |
| 2215737 | GOODCRANE CORPORATION | 6631 RIXIE RD SE | OLYMPIA | 98501 | Cleanup Started | AIR, SW, GW, SOIL | 3, 7, 9 |
| 2274484 | LACEY FUEL | 4533 LACEY BLVD | LACEY | 98503 | Cleanup Started | SOIL, GW | 7 |
| 2439889 | OLYMPIA HIGH SCHOOL | 1302 NORTH ST | | | | SOIL | 7 |
| 2472085 | EVERGREEN SPORTSMAN CLUB | 12736 MARKSMAN RD SW | OLYMPIA | 98512 | Awaiting Cleanup | SOIL | 3, 11 |
| 2566881 | WA DOT E I5 MILEPOST 87.5 | MP 87 I5 N | ROCHESTER | 98579 | Awaiting Cleanup | SOIL | 7 |
| 2700509 | 1515 DIVISION NURSERY | 1515 DIVISION ST NW | OLYMPIA | 98502 | Cleanup Started | SOIL, GW | 6, 7, 13 |
| 3024394 | 318 STATE AVE NE OLYMPIA | 318 STATE AVE NE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 2, 3, 4, 5, 7, 11 |
| 3097108 | BUDD INLET SEDIMENT | LAT 47 3 31N LONG 122 54 25W | OLYMPIA | 98506 | Cleanup Started | SED | 10 |
| 3567929 | TACO BELL/FORMER CHEVRON 96801 | 3815 PACIFIC AVE | LACEY | 98503-1106 | Cleanup Started | SOIL, GW | 3, 7, 9 |
| 4017323 | HAUMANN PROPERTY | 3308 WINDOLPH LOOP NW | OLYMPIA | 98502 | Awaiting Cleanup | SOIL, SW, GW | 7, 9 |
| 4749152 | WA GA OLYMPIA | 1058 CAPITOL WAY | OLYMPIA | | Cleanup Started | SOIL, GW | 7 |
| 4877728 | 8TH & CAPITOL INVESTIGATION | 8TH AVE & CAPITOL WAY | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 7 |
| 5000615 | GALLAGHER COVE LLC | 7220 GALLAGHER COVE RD NW | OLYMPIA | 98502 | Awaiting Cleanup | SOIL, SW, GW | 3, 7, 15 |
| 5217624 | BALSLEY PROPERTY | 1954 DIVISION ST NW | | | | SOIL | 7 |
| 5377602 | 5th & COLUMBIA ST PARKING LOT | 125 4TH AVE W & 126 5TH AVE W | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7, 9 |
| 5465157 | 7 ELEVEN FOOD STORE 230325983H | 3541 MARTIN WAY E | OLYMPIA | 98506-0000 | Cleanup Started | SOIL, GW | 3, 7, 9, 11 |
| 5646874 | GULL HARBOR MERCANTILE | 4932 BOSTON HARBOR RD NE | OLYMPIA | 98506 | Cleanup Started | SOIL, GW | 7, 9 |
| 5717399 | DIAMOND PARKING/CHEVRON 9-0292 | 704 CAPITOL WAY S | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7 |
| 5785176 | EAST BAY REDEVELOPMENT | 315 JEFFERSON ST NE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 3, 4, 5, 7, 8, 11 |
| 6105358 | DOWNTOWN SAFEWAY | 601-609 4TH AVE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 2, 3, 7, 9 |
| 6280479 | WA DNR TRIANGLE PIT | WADDELL CREEK RD | ROCHESTER | 98579 | Awaiting Cleanup | SOIL, GW, SW, AIR | 3 |
| 6413759 | PSE BLUMAUER SUBSTATION | HODGEDON ST N & GARFIELD AVE SE | TENINO | 98589 | Awaiting Cleanup | SOIL | 5, 7 |
| 6649361 | BUCKEYE COURT GASOLINE SPILL | 8113 BUCKEYE CT SW | OLYMPIA | 98512 | Awaiting Cleanup | SOIL, GW, SW, AIR | 7, 9 |
| 6802078 | VALENTINE FYRST PROPERTY | 15205 LAKE LAWRENCE RD SE | YELM | 98597 | Awaiting Cleanup | SOIL, GW | 7 |
| 7496337 | 1203 EDISON ST NE | 1203 EDISON ST NE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7 |
| 8050990 | CITY OF OLYMPIA 4TH & SYLVESTER UTILITY CORRIDOR | 300 W 4TH AVE | | | | SOIL | 7 |
| 8366579 | OLYMPIA SCHOOL DISTRICT HQ | 1113 LEGION WY SE | | | | SOIL | 7 |
| 8786341 | WA DNR WEBSTER NURSERY | 9805 BLOMBERG ST SW | TUMWATER | 98512-1044 | Construction Complete-Performance Monitoring | SOIL, GW | 6 |
| 9488181 | CLARION HOTEL | 900 CAPITOL WAY S | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 7 |
| 9868921 | EIGHTH AVENUE PARK | 3800 8TH AVENUE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 6 |

# Thurston County Contaminated Sites List - Updated February 7, 2012

| FSID# | CleanupSiteName | Address | City | ZipCode | SiteStatus | Media Affected | Contaminant(s) |
|---|---|---|---|---|---|---|---|
| 9945327 | LACEY MARKET SQUARE | 700 SLEATER KINNEY RD SE | LACEY | 98503 | Awaiting Cleanup | SOIL, GW | 9 |
| 12548811 | HANDY PANTRY | 2010 DIVISION ST NW | OLYMPIA | 98502 | Awaiting Cleanup | SOIL, GW | 7, 9 |
| 12652833 | THURSTON CO PUB WKS LITTLEROCK EQUIP STOR | 128TH SW & LITTLEROCK RD S | | | | SOIL | 7 |
| 12971522 | WA GRANGE PARKING LOT CHEVRON | 1002 CAPITOL WAY S | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7 |
| 13157783 | KMART #3389 | 4141 MARTIN WAY E | | | | SOIL | 7 |
| 13693544 | JACKS AUTO REPAIR | 1400 BETHEL ST NE | | | | SOIL, GW | 7 |
| 13926362 | ZITTLE'S JOHNSON POINT | 9144 GALLEA ST NE | | | | SOIL, GW | 7 |
| 14214153 | EASTSIDE LAUNDRY/ALLISONS NORGE VILLAGE | 120 NE TURNER ST | OLYMPIA | 98506 | Cleanup Started | SOIL, GW | 2 |
| 14254774 | NORTHWEST DELI MART #10 | 6131 CAPITOL BLVD | | | | SOIL | 7 |
| 15444744 | TESC MOTOR POOL | 2700 KAISER RD | | | | SOIL | 7 |
| 17255812 | WA DNR MARINE RESEARCH CNTR | 900 47TH AVE NE | OLYMPIA | 98506-1802 | Cleanup Started | SOIL, GW | 2, 3, 7, 9 |
| 17748166 | THURSTON CO BOULEVARD MAINT SHOP | 3430 BOULEVARD RD | | | | SOIL | 7 |
| 17891797 | INTERCITY TRANSIT/TREASURE CHEST | 222 STATE AVE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7 |
| 18149253 | LEW RENTS WEST INC | 405 MCPHEE SW | OLYMPIA | 98502-5078 | Cleanup Started | SOIL, GW | 7 |
| 18383525 | VILLA GROVE TEXACO | 9200 LITTLEROCK RD SW | OLYMPIA | 98512-8537 | Cleanup Started | SOIL, GW | 7, 9 |
| 19341958 | HOWARDS CLEANERS | 4224 PACIFIC AVE SE | LACEY | 98503 | Awaiting Cleanup | SOIL, GW | 2 |
| 21397472 | LOTT WASTEWATER TREATMENT PLANT | 500 ADAMS ST NE | OLYMPIA | 98501 | Cleanup Started | GW, SOIL | 3, 4, 5, 7, 10, 11 |
| 24971643 | TACOMA SMELTER PLUME THURSTON COUNTY | | | | Cleanup Started | SOIL, SW | 3 |
| 25276751 | OLYMPIC PIPELINE CO OLYMPIA STATION | 11710 VAIL CUTOFF RD | RAINIER | 98576 | Cleanup Started | SOIL, GW | 6, 7, 9 |
| 25489377 | MJMG GROUP LLC | 1018 PLUM ST SE | OLYMPIA | 98501-1558 | Cleanup Started | SOIL, GW | 3, 7 |
| 26325384 | PORT OF OLYMPIA WAREHOUSE 2 | 915 N WASHINGTON ST WAREHOUSE | | | | SOIL, GW | 7 |
| 28161364 | CITY OF OLYMPIA-HERITAGE PARK | 4TH AVE & SYLVESTER ST | | | | SOIL, GW | 3, 7 |
| 28914419 | RICKS SERVICE CENTER | 5916 PACIFIC AVE SE | | | | SOIL | 7 |
| 31651436 | OLYMPIA CITY SEWER PUMP STATION | 220 WATER ST NW | OLYMPIA | 98506 | Cleanup Started | SOIL, GW | 7 |
| 32538917 | JACKPOT STATION #371 | 1802 HARRISON AVE NW | OLYMPIA | 98502 | Cleanup Started | SOIL, GW | 7 |
| 32693644 | WA ST FISH & WILDLIFE/LACEY SHOP | 6420 CARPENTER RD CONSTR SHOP | | | | SOIL | 7 |
| 32728866 | OLYMPIA SCHOOL DISTRICT BUS BARN | 1914 S WILSON | OLYMPIA | 98501-3066 | Cleanup Started | SOIL | 7 |
| 32816786 | MERCHANTS MOVING & STORAGE | 5880 LINDERSON WAY | | | | SOIL | 7 |
| 33131711 | ROCHESTER FIRE DEPARTMENT | 18346 ALBANY ST SW | | | | SOIL | 7 |
| 33626892 | 17936 LITTLEROCK ROAD SE DRUG LAB | 17936 LITTLEROCK RD SE | ROCHESTER | 98579 | Awaiting Cleanup | SOIL, GW | 1, 7, 11 |
| 34158513 | TEXACO #63-157-0061 | 1545 MARVIN RD NE | | | | SOIL | 7 |
| 34988825 | SHOP FAST | 2020 BLACK LAKE BLVD | OLYMPIA | 98502 | Cleanup Started | SOIL, GW | 3, 7, 9 |
| 35797926 | BRIGGS NURSERY | 4407 HENDERSON BLVD SE | OLYMPIA | 98501-4699 | Cleanup Started | SOIL, SW | 3, 5, 6, 7, 10 |
| 36199886 | LITTLEROCK GROCERY | 6410 128TH AVE SW | | | | SOIL | 7 |
| 36362393 | NISQUALLY VALLEY GROCERY | 11020 7TH AVE SE | | | | SOIL | 7 |
| 37135969 | ACME FUEL BULK PLANT 305 | 305 THURSTON AVE NE | | | | SOIL, GW | 7 |
| 37783469 | TEXACO 63-157-0225 | 3505 PACIFIC AVE | OLYMPIA | 98501-2120 | Reported Cleaned Up | GW, SOIL | 3, 7, 9 |
| 37814287 | SUMMIT LAKE BP | 120 WILSON RD NW | OLYMPIA | 98502-9439 | Cleanup Started | SOIL, GW | 7 |
| 38596881 | ANDY JOHNSON & CO INC | 2450 MOTTMAN RD SW | | | | SOIL | 7 |
| 38893366 | STOP N GO | 600 E 4TH AVE | OLYMPIA | 98501-1111 | Cleanup Started | SOIL, GW | 7 |
| 38982928 | PREMIER AUTO DETAIL | 722 CAPITOL WAY S | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 3, 7 |
| 39149248 | GOVERNOR MANSION | 501 13TH AVE | | | | SOIL | 7 |
| 39211944 | PERFORMANCE CORNER | 3025 MARTIN WAY E | OLYMPIA | 98506-4948 | Cleanup Started | SOIL, GW | 3, 7 |
| 42113995 | INTERCITY TRANSIT | 526 PATTISON ST SE | OLYMPIA | 98501-2076 | Reported Cleaned Up | SOIL | 7 |
| 43655244 | CAPITOL CITY HONDA | 2375 CARRIAGE LP SW | | | | SOIL | 7 |
| 43839123 | CITY OF OLYMPIA RIGHT OF WAY | 4TH & E BAY DR | | | | SOIL | 7 |

# Thurston County Contaminated Sites List - Updated February 7, 2012

| FSID# | CleanupSiteName | Address | City | ZipCode | SiteStatus | Media Affected | Contaminant(s) |
|---|---|---|---|---|---|---|---|
| 44758216 | ODD FELLOWS MEMORIAL PARK | 100 CLEVELAND AVE | | | | SOIL | 7 |
| 45376764 | SWANEY CHEVRON | 2601 YELM HWY SE | | | | SOIL | 7, 9 |
| 45855297 | CIRCLE K STORE/5496 BP OIL | 1105 MARVIN RD NE | LACEY | 98506 | Cleanup Started | SOIL, GW | 7 |
| 46541472 | WA ST CB&G STEAMPLANT | CAPITOL POWERHOUSE | OLYMPIA | 98504-0001 | Cleanup Started | SOIL, GW | 7 |
| 46958272 | VENEER SERVICE INC | 7225 PACIFIC AVE SE | | | | SOIL | 7 |
| 48351879 | CIRCLE K 5497/BP 01690 | 102 SE COLLEGE | LACEY | 98503 | Cleanup Started | SOIL, GW | 3, 7, 9 |
| 51355445 | DARIGOLD SITE FORMER | 706 E 7TH AVE | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7 |
| 51544116 | KENS TIRE | 421 4TH AVE E | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7 |
| 53794257 | PEARSON AIR INC | 7529 OLD HWY 99 SE | OLYMPIA | 98501-5726 | Cleanup Started | SOIL, GW | 7, 9, 11 |
| 54596735 | LACEY FOOD MART | 4603 LACEY BLVD SE | LACEY | 98503 | Cleanup Started | SOIL, GW | 7 |
| 55237647 | PALERMO WELLFIELD | PALERMO AVE SE & O ST SE | TUMWATER | 98501 | Construction Complete-Performance Monitoring | AIR, GW, SW | 2 |
| 55444755 | WASHINGTON NATURAL GAS OLYMPIA OFFICE | 3120 MARTIN WAY | | | | SOIL, GW | 7 |
| 56351338 | ARCO 5303 | 1725 EVERGREEN PARK DR | | | | SOIL | 7 |
| 57194911 | SECURED SAFE STORAGE | 3511 MUD BAY RD W | OLYMPIA | 98502-2538 | Awaiting Cleanup | SOIL, GW | 7, 9 |
| 57665495 | JOHNS AUTO WRECKING | 411 93RD AVE SE | OLYMPIA | 98501-9701 | Cleanup Started | SOIL, GW | 3, 7, 11 |
| 58484616 | UNOCAL HULCO BULK PLANT FORMER | 301 N COLUMBIA | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 7 |
| 58655568 | EVERGREEN SHORES GROCERY | 7421 MAZAMA ST SW | OLYMPIA | 98512 | Cleanup Started | SOIL, GW, SW | 7 |
| 58964741 | CENTRAL REDDI-MIX INC | 3150 29TH AVE SW | | | | SOIL | 7 |
| 59585882 | NORTHWEST PIPELINE GP OLYMPIA M/S | 6310 SE FIR TREE RD | OLYMPIA | 98513-8862 | Cleanup Started | SOIL | 3 |
| 61129672 | OLYMPIA CITY PUBLIC WORKS 7TH AVE | 837 7TH AVE SE | OLYMPIA | 98501-1508 | Awaiting Cleanup | SOIL, GW | 7, 11 |
| 61686857 | TEXACO #63-157-0075 | 4542 MARTIN WAY | | | | SOIL | 7, 9 |
| 62154231 | THE COACHMAN FOR MAZDA | 2220 CARRIAGE ST SW | | | | SOIL | 7 |
| 62357433 | PHO OLYMPIA RESTAURANT UTILITY POLE | 301 4TH AVE W | OLYMPIA | 98501 | Awaiting Cleanup | SOIL, GW | 3, 7, 11 |
| 62491698 | CITY OF OLY WATER CHLORINATION PLANT | 9500 PACIFIC | | | | SOIL | 7 |
| 63563665 | RAM AUTO & TRUCK RECYCLING | 8048 MARTIN WAY E | LACEY | 98503 | Cleanup Started | SOIL, GW | 3, 7, 9 |
| 66681122 | JERRY'S BP | 2036 4TH E | | | | SOIL | 7 |
| 66757978 | PUGET POWER OLYMPIA SERV CENTER | 2711 PACIFIC AVE | OLYMPIA | 98507 | Cleanup Started | SOIL, GW | 7 |
| 66969124 | MCMAHANS FURNITURE | 705 N 4TH AVE | OLYMPIA | 98501 | Awaiting Cleanup | SOIL | 7 |
| 69587682 | BP 03158/CIRCLE K | 501 TROSPER RD SW | TUMWATER | 98501 | Cleanup Started | SOIL, GW | 7 |
| 69859371 | MOS MINI MART | 21530 HWY 99 SW | | 98531 | Cleanup Started | SOIL, GW | 7 |
| 69923242 | BMT NORTHWEST AKA RELIABLE STEEL | 1218 WEST BAY DR NW | OLYMPIA | | Cleanup Started | SOIL, GW | 3, 7 |
| 69986581 | PIT STOP OLYMPIA | 1734 BOULEVARD RD | OLYMPIA | 98501-2675 | Cleanup Started | SOIL, GW | 7, 9 |
| 70416466 | LYCAN FUEL SERVICE | SUSSEX & RAGLASS ST | | | | SOIL | 7 |
| 70971197 | TENINO SERVICE CENTER | GARFIELD & HODGEN ST | TENINO | 98589 | Awaiting Cleanup | SOIL, GW | 7 |
| 71613253 | MASSOTH MACHINE | 2521 4TH AVE E | OLYMPIA | 98506-4822 | Cleanup Started | SOIL | 2, 7 |
| 73479855 | MINIT-LUBE #1106 | 2424 HARRISON AVE W | | | | SOIL | 7 |
| 74873833 | TENINO CORNER GROCERY | 319 WICHMAN ST S | TENINO | 98589 | Cleanup Started | SOIL, GW | 7, 9 |
| 74983837 | JACKPOT STATION 372 | 927 4TH AVE E | OLYMPIA | 98506-3923 | Awaiting Cleanup | SOIL, GW | 3, 7 |
| 75128579 | HARDEL MUTUAL PLYWOOD | 1210 W BAY DR NW | OLYMPIA | 98502-4671 | Cleanup Started | SOIL, GW, SW | 7, 11 |
| 75675229 | TENINO SCHOOL DISTRICT | 500 2ND ST W | | | | SOIL | 7 |
| 75957582 | TANGLEWILDE CHEVRON | 7291 MARTIN WAY E | OLYMPIA | 98516-5534 | Cleanup Started | SOIL, GW | 7 |
| 76448721 | PHIL WALL & SONS INC | 421 LEGION WAY | | | | SOIL | 7 |
| 77253229 | GREAT WESTERN SOIL | 9418 OLD HWY 99 | | | | SOIL | 7 |
| 77331223 | NORTHWEST DELI MART #27 | 2400 HARRISON AVE W | | | | SOIL | 7 |
| 77633313 | CAPITAL PLUMBING AND HEATING | 424 JEFFERSON ST SE | | | | SOIL, GW | 7 |
| 78047895 | TUMWATER PUBLIC WORKS DEPT | 517 W BATES | | | | SOIL, GW | 7 |
| 78313624 | 4TH AVE SHELL TEXACO STATION 120948 | 2319 4TH AVE E | OLYMPIA | 98506 | Cleanup Started | SOIL, GW | 7, 9 |

## Thurston County Contaminated Sites List - Updated February 7, 2012

| FSID# | CleanupSiteName | Address | City | ZipCode | SiteStatus | Media Affected | Contaminant(s) |
|---|---|---|---|---|---|---|---|
| 79261422 | JACK WILMARTH TRIANGLE GENERAL STORE | 10408 JAMES RD SW | ROCHESTER | 98579-9354 | Awaiting Cleanup | SOIL, GW | 7 |
| 79533735 | MILLS & MILLS FURNERAL HOME | 414 FRANKLIN ST | | | | SOIL, GW | 7 |
| 81579269 | LAKESIDE INDUSTRIES LACEY PLANT 70 | 2416 HOGUM BAY RD NE | LACEY | 98516 | Awaiting Cleanup | SOIL, GW | 7 |
| 81599862 | JIFFY LUBE 2071 | 4102 PACIFIC AVE SE | LACEY | 98503 | Cleanup Started | SOIL, GW | 7 |
| 81658797 | OLYMPIA AIRPORT VORTAC SITE | LAT 46 58 18 LONG 122 54 | | | | SED | 7 |
| 81756869 | LACEY CITY OF | 420 COLLEGE ST | | | | SOIL | 7 |
| 81812823 | WDOT (I-5 RIGHT-OF-WAY) | DESCHUTES PKWY | | | | SOIL | 7 |
| 82016954 | SUNDBERG GRAVEL PIT | 2200 COOPER PT RD | | | | SOIL | 7 |
| 82465752 | EXXON 7-0484 | 1801 BLACK LAKE BLVD | OLYMPIA | 98512 | Cleanup Started | SOIL, GW | 7 |
| 83263389 | MILLERSYLVANIA ST PARK | 11838 TILLEY RD S | | | | SOIL | 7 |
| 86379285 | MARVIN RD CDLK | 2135 MARVIN RD NE | OLYMPIA | 98506-3869 | Awaiting Cleanup | SOIL | 7 |
| 86745878 | OLYMPIA CHRYSLER/PLYMOUTH | 2110 CARRIAGE DR SW | | | | SOIL | 7 |
| 87114236 | CITY OF OLYMPIA-MILLER CENTRAL | 1920 N CENTRAL | OLYMPIA | 98501 | Awaiting Cleanup | SOIL | 7 |
| 87263176 | THURSTON CO PUB WKS TENINO GRADER STORAGE | MCCLELLAN ST & STATE HWY 507 | | | | SOIL | 7 |
| 87583687 | CITY OF OLYMPIA-HOLIDAY HILLS | 1924 LAKEWOOD DR | | | | SOIL, GW | 7 |
| 88294721 | FIRESTONE | 2800 HARRISON AVE W | | | | SOIL | 7 |
| 88728931 | US WEST MARTIN WAY SOC | 2817 MARTIN WAY | OLYMPIA | 98503 | Cleanup Started | SOIL, GW | 7, 9 |
| 88886724 | CHAMBERS PRAIRIE GENERAL STORE | 2914 YELM HWY SE | | | | SOIL | 7 |
| 89113182 | KEN'S TEXACO | 6610 SEXTON RD NW | | | | SOIL | 7 |
| 89216524 | ARNOLDS TEXACO SERVICE | 728 E 4TH | OLYMPIA | 98506-3920 | Awaiting Cleanup | SOIL, GW | 7 |
| 91682829 | COLUMBIA SQUARE PROPERTIES | 320 N COLUMBIA | OLYMPIA | 98501 | Cleanup Started | SOIL, GW | 3, 7, 9, 11 |
| 92753273 | WEST BAY MARINA | 2100 W BAY DR NW | OLYMPIA | 98502-4364 | Cleanup Started | SOIL, GW, SW | 7 |
| 92768413 | A-1 RENTALS | 903 E 4TH | | | | SOIL | 7 |
| 94656838 | SOLID WOOD INC | 700 W BAY DR NW | OLYMPIA | 98502-4838 | Cleanup Started | SED, SOIL, GW | 3, 7, 10, 11 |
| 95968867 | ASTRO WESTERN 617 | 8245 RICH RD SE | OLYMPIA | 98501-9658 | Cleanup Started | SOIL, GW | 7 |
| 97196866 | 7 ELEVEN FOOD STORE 230314479M | 5310 CAPITOL BLVD S | TUMWATER | 98501 | Cleanup Started | SOIL, GW | 7, 9 |
| 97378977 | TOM MARTIN CONSTRUCTION | 2750 HOGUM BAY RD NE | | | | SOIL | 7 |
| 98985147 | LARRY'S CHEVRON | 10115 HWY 12 SW | | | | SOIL | 7 |
| 99429895 | CRAZEE EXPRESSO | 925 STATE AVE | | | | SOIL | 7 |
| 99548553 | TUMWATER LUMBER COMPANY | 8277 CENTER ST SW | | | | SOIL | 7 |
| 99585196 | OLD TUMWATER CITY HALL/2ND AVE | 215 2ND AVE | | | | SOIL, GW | 7 |
| 99997001 | UNION OIL STATION | 200 DIVISION ST NW | OLYMPIA | 98502 | Cleanup Started | SOIL, GW | 3, 7, 9, 11 |

1. Base/Neutral/Acid Organics
2. Halogenated Organic Compounds
3. Metals—EPA Priority Pollutants Metals
4. Metals—Other Non-Priority Pollutant Metals.
5. Polychlorinated Biphenyl (PCB)
6. Pesticides
7. Petroleum Products
8. Phenolic Compounds
9. Non-Halogenated Solvents
10. Dioxins
11. Polynuclear Aromatic Hydrocarbons (PAH)
12. Reactive Wastes
13. Corrosive Wastes
14. Radioactive Wastes
15. Conventional Contaminants—Organic:
16. Conventional Contaminants—Inorganic
17. Arsenic

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# Appendix 12
# Dangerous Waste Transporters

Companies that transport dangerous waste or serve as transfer facilities must register with the Department of Ecology. Statewide, 78 companies have registered with the Department of Ecology as transporters of dangerous waste generated by other companies, and 46 companies have registered as transfer facilities. Data for this appendix provided by Kathleen Kaynor, Department of Ecology, on January 25, 2013.

| Common Name | Location Line 1 Address | Location City | Location Zip | Location County | Transporter of Others Waste | Transfer Facility |
|---|---|---|---|---|---|---|
| Savage Logistics LLC | 2750 Salk Ave Ste 104 | Richland | 99354 | BENTON | TRUE | FALSE |
| Richland Industrial Center | 2355 STEVENS DR | RICHLAND | 99352 | BENTON | FALSE | TRUE |
| Pool Engineering Inc Chelan | 1506 W Woodin Ave | Chelan | 98816 | CHELAN | TRUE | FALSE |
| Veolia ES Technical Solution LLC Vancouv | 5720C NE 121 Ave Ste 105 Transfer Facili | Vancouver | 98682 | CLARK | TRUE | TRUE |
| Tetra Pak Materials LP | 1616 W 31ST ST | VANCOUVER | 98660-1201 | CLARK | TRUE | FALSE |
| Siemens Industry Inc Vancouver | 11800 NE 60th Way | Vancouver | 98682 | CLARK | TRUE | FALSE |
| Pacific Crest Building Supply | 5901 S 11th St | Ridgefield | 98642 | CLARK | TRUE | FALSE |
| West Coast Marine Cleaning Inc | 3501 THOMPSON AVE | VANCOUVER | 98660 | CLARK | TRUE | FALSE |
| Camas School District Transportation | 1125 NE 22nd Ave | Camas | 98607 | CLARK | FALSE | TRUE |
| Emerald Services Inc Vancouver | 1300 W 12TH ST | VANCOUVER | 98660 | CLARK | FALSE | TRUE |
| Burlington Environmental LLC Washougal | 625 S 32ND ST | WASHOUGAL | 98671 | CLARK | FALSE | TRUE |
| Jammies Environmental Inc | 128 Industrial Way | Longview | 98632 | COWLITZ | TRUE | FALSE |
| CCS | 60 INTERNATIONAL WAY | LONGVIEW | 98632 | COWLITZ | TRUE | FALSE |
| Anderson Environmental Contracting LLC | 705 Colorado St | Kelso | 98626 | COWLITZ | TRUE | FALSE |
| Cowlitz Clean Sweep Inc | 55 INTERNATIONAL WAY | LONGVIEW | 98632 | COWLITZ | FALSE | TRUE |
| Safety Kleen Systems Inc | 814 E AINSWORTH | PASCO | 99301 | FRANKLIN | TRUE | TRUE |
| Safety Kleen Systems Inc | 1202 SE Rd 18 E Transfer Facility | Pasco | 99301 | FRANKLIN | TRUE | TRUE |
| Savage Transportation LLC | 251 COMMERCIAL AVE | PASCO | 99301-9676 | FRANKLIN | TRUE | FALSE |
| Emerald Services Inc Pasco | 251 Commercial Ave Transfer Facility | Pasco | 99302 | FRANKLIN | FALSE | TRUE |
| Burlington Environmental LLC Pasco | 3725 Jason Ave | Pasco | 99301 | FRANKLIN | FALSE | TRUE |
| R Transport Inc | 300 Washington Way | George | 98824 | GRANT | TRUE | FALSE |
| All Pak Container | 1100 SW 27th St | Renton | 98055 | KING | TRUE | TRUE |
| Northland Services Inc | 6700 W MARGINAL WAY SW S TERMINAL 115 TR | SEATTLE | 98106 | KING | TRUE | TRUE |
| SAFETY KLEEN SYSTEMS INC AUBURN B ST NW | 3102 B ST NW TRANSFER FACILITY | AUBURN | 98001 | KING | TRUE | TRUE |
| Alaska St Reload & Recyling | 70 S ALASKA ST | SEATTLE | 98134 | KING | TRUE | TRUE |
| Ingenium Group LLC Transfer Facility | 8206 S 192nd St | Kent | 98032 | KING | TRUE | TRUE |
| Emerald Services Inc | 7343 E MARGINAL WAY S | SEATTLE | 98108 | KING | TRUE | TRUE |
| Veolia ES Technical Solutions LLC | 22429 76th Ave S Transfer Facility | Kent | 98032 | KING | TRUE | TRUE |
| Marine Vacuum Service Inc | 1516 S GRAHAM ST | SEATTLE | 98108 | KING | TRUE | TRUE |
| Commercial Waste Reduction & Recycling | 27215 SE 306th St | Black Diamond | 98010 | KING | TRUE | FALSE |

| Common Name | Location Line 1 Address | Location City | Location Zip | Location County | Transporter of Others Waste | Transfer Facility |
|---|---|---|---|---|---|---|
| Univar USA Inc Kent | 8201 S 212TH ST | KENT | 98032-1952 | KING | TRUE | FALSE |
| Univar USA Inc Redmond | 17425 NE Union Hill Rd | Redmond | 98052 | KING | TRUE | FALSE |
| CMX Corp | 6601 S GLACIER ST | TUKWILA | 98188-4718 | KING | TRUE | FALSE |
| Crowley Marine Services Inc | 1100 SW MASSACHUSETTS ST | SEATTLE | 98134-1030 | KING | TRUE | FALSE |
| Bowhead Transp Co Inc Seattle | 1001 SW KLICKITAT WAY STE 104 | SEATTLE | 98134 | KING | TRUE | FALSE |
| Graham Trucking Inc | 722 S Chicago St | Seattle | 98108 | KING | TRUE | FALSE |
| INTEGRITY SERVICES OF WA INC | 906 BAYSINGER PL | ENUMCLAW | 98022 | KING | TRUE | FALSE |
| Roadlink Transportation Solutions | 3433 Airport Way S | Seattle | 98134 | KING | TRUE | FALSE |
| Samson Tug & Barge Co Inc Transporter | 6365 1st Ave S | Seattle | 98108 | KING | TRUE | FALSE |
| Kleen Environmental Technologies Inc | 5955 W Marginal Way | Seattle | 98168-7522 | KING | TRUE | FALSE |
| FBN Enterprises Inc | 16220 NE 6th St | Bellevue | 98008 | KING | TRUE | FALSE |
| Keep It Clean Recycling & Equipment Co | 21851 NE 97TH PL | REDMOND | 98053-7689 | KING | TRUE | FALSE |
| Magic Auto Solutions | 9125 WILLOWS RD | REDMOND | 98052 | KING | TRUE | FALSE |
| James Street Cleaners | 10609 SE 240th St | Kent | 98031 | KING | TRUE | FALSE |
| Campus Cleaners | 4100 ROOSEVELT WAY NE | SEATTLE | 98105-6436 | KING | TRUE | FALSE |
| Siemens Industry, Inc. | 601 S Snoqualmie St Transfer Facility | Seattle | 98108 | KING | FALSE | TRUE |
| Ecolights Northwest | 1915 S Corgiat Dr | Seattle | 98108 | KING | FALSE | TRUE |
| Univar USA Inc Kent | 8201 S 212th St Transfer Facility | Kent | 98032 | KING | FALSE | TRUE |
| Boyer Logistics Inc | 7318 4TH AVE S | SEATTLE | 98108 | KING | FALSE | TRUE |
| Acucela Inc | 21720 23rd Dr SE Ste 120 | Bothell | 98021 | KING | FALSE | TRUE |
| Burlington Environmental LLC Kent | 20245 77TH AVE S | KENT | 98032-1386 | KING | FALSE | TRUE |
| Emerald Services Inc Airport Way | 1500 Airport Way S | Seattle | 98134 | KING | FALSE | TRUE |
| NRC Environmental Services Inc | 910 S 96th Transfer Facility | Seattle | 98108 | KING | FALSE | TRUE |
| A1 Services Inc | 2603 SHERMAN AVE | PORT ORCHARD | 98366 | KITSAP | TRUE | FALSE |
| Chem Safe Environmental Inc Transporter | 400 S MAIN TRANSPORTER | KITTITAS | 98934 | KITTITAS | TRUE | TRUE |
| Specialized Services Trucking Inc | 23 Airport Rd | Oroville | 98844 | OKANOGAN | TRUE | FALSE |
| Weyerhaeuser Co Raymond Lumbermill | 51 ELLIS ST | RAYMOND | 98577 | PACIFIC | FALSE | TRUE |
| Harland Clarke | 300 E MERIDIAN | MILTON | 98354 | PIERCE | TRUE | TRUE |
| Lynden Transport Inc | 5410 12TH ST E | FIFE | 98424-1355 | PIERCE | TRUE | TRUE |
| Smith Systems Transportation Inc Puyallu | 14224 Pioneer Way E | Puyallup | 98371 | PIERCE | TRUE | TRUE |
| Smith Systems Transportation Inc Tacoma | 1425 Thorn Rd | Tacoma | 98401 | PIERCE | TRUE | TRUE |
| SME Corp | 311 E 26TH ST | TACOMA | 98421-1308 | PIERCE | TRUE | FALSE |
| ALEUTIAN YACHTS | 401 ALEXANDER AVE BLDG 532 | TACOMA | 98421 | PIERCE | TRUE | FALSE |
| Northern Environmental LLC | 1128 Lenore Dr | Tacoma | 98406 | PIERCE | TRUE | FALSE |
| 5 Star Transportation LLC | 1224 122ND ST E | TACOMA | 98445 | PIERCE | TRUE | FALSE |
| Burlington Environmental LLC Tacoma Tran | 1629 E Alexander Ave Upper Level | Tacoma | 98421 | PIERCE | TRUE | FALSE |
| Relia Safe Transport LLC dba RST Hazmat | 5225 7TH ST E | Fife | 98424-2708 | PIERCE | TRUE | FALSE |
| Carlile Transportation Systems Inc | 2301 Taylor Way Transporter | Tacoma | 98421 | PIERCE | TRUE | FALSE |
| FTR Pacific Inc | 3212 84th St E | Tacoma | 98446 | PIERCE | TRUE | FALSE |
| Certified Cleaning Svcs Inc | 2103 E 112TH ST FRONT SHOP | TACOMA | 98445 | PIERCE | TRUE | FALSE |

| Common Name | Location Line 1 Address | Location City | Location Zip | Location County | Transporter of Others Waste | Transfer Facility |
|---|---|---|---|---|---|---|
| Phoenix Environmental Svcs Inc | 2212 PORT OF TACOMA RD | TACOMA | 98421 | PIERCE | TRUE | FALSE |
| Drain Pro Inc | 5111 85TH AVE E | PUYALLUP | 98371 | PIERCE | TRUE | FALSE |
| Guardian Industrial Svcs Inc 99th St E | 1813 99TH ST E | TACOMA | 98445 | PIERCE | TRUE | FALSE |
| Truck Rail Handling Inc | 457 E 18TH ST | TACOMA | 98421-1506 | PIERCE | FALSE | TRUE |
| Clean Harbors Env Svcs Inc 79th Ave S | 26328 79TH AVE S | KENT | 98032 | PIERCE | FALSE | TRUE |
| Emerald Services Inc Alexander Ave | 1825 ALEXANDER AVE | TACOMA | 98421 | PIERCE | FALSE | TRUE |
| Burlington Environmental LLC Tacoma | 1701 E ALEXANDER AVE | TACOMA | 98421-4106 | PIERCE | FALSE | TRUE |
| Phoenix Environmental Svcs Inc Transfer | 2212 PORT OF TACOMA RD TRANSFER FACILITY | TACOMA | 98421 | PIERCE | FALSE | TRUE |
| Sand Juan Recycle | 1021 Argyle Ave | Friday Harbor | 98250 | SAN JUAN | TRUE | FALSE |
| Hallmark Refining Corp | 1016 DALE LANE | MOUNT VERNON | 98273 | SKAGIT | TRUE | FALSE |
| KLB CONSTRUCTION INC | 3405 121ST ST SW | LYNNWOOD | 98087 | SNOHOMISH | TRUE | FALSE |
| Innovative Vacuum Services Inc | 20909 70TH AVE W | EDMONDS | 98026 | SNOHOMISH | TRUE | FALSE |
| Newsom Bros | 20902 67th Ave NE | Arlington | 98223 | SNOHOMISH | TRUE | FALSE |
| BRIAN MUNDAY TRUCKING LLC | 15607 SE 148th St | Renton | 98059 | SNOHOMISH | TRUE | FALSE |
| MP Environmental | 3400 34th Ave NE | Everett | 98205 | SNOHOMISH | TRUE | FALSE |
| Glacier Environmental Svcs Inc | 4416 Russell Rd Ste A | Mukilteo | 98275 | SNOHOMISH | TRUE | FALSE |
| Able Clean up Technologies Inc | 4117 E NEBRASKA | SPOKANE | 99217 | SPOKANE | TRUE | TRUE |
| Safety Kleen Systems Inc New Bldg | 3808 N Sullivan Rd Bldg 12 Ste 1W | Spokane | 99216 | SPOKANE | TRUE | TRUE |
| Able Clean Up Tech Inc | 4117 E Nebraska Ave Transfer Facility | Spokane | 99217 | SPOKANE | TRUE | TRUE |
| OK Electric Inc | 3721 E Central | Spokane | 99217 | SPOKANE | TRUE | FALSE |
| Univar USA Inc | 4515 WISCONSIN AVE E | SPOKANE | 99212 | SPOKANE | TRUE | FALSE |
| Steelco NW Distributors Transporter | 5709 E Palouse Hwy | Valleyford | 99036 | SPOKANE | TRUE | FALSE |
| Bulk Service Transport Inc Spokane | 16702 E Euclid Ave | Spokane | 99216 | SPOKANE | TRUE | FALSE |
| Spokane Industries | 3808 N Sullivan Rd Bldg 1 | Spokane | 99216 | SPOKANE | FALSE | TRUE |
| Shamrock Machining Inc | 5704 E 1ST AVE | SPOKANE | 99212 | SPOKANE | FALSE | TRUE |
| Siemens Industry, Inc. | 1620 N Mamer Rd | Spokane | 99216 | SPOKANE | FALSE | TRUE |
| Univar USA Inc Spokane | 4515 Wisconsin Ave E Transfer Facility | Spokane | 99212 | SPOKANE | FALSE | TRUE |
| Emerald Services Inc Spokane | 3808 N Sullivan Rd Bldg 11 Ste C | Spokane | 99216 | SPOKANE | FALSE | TRUE |
| JASON KEEFE | 1949 C HWY 25 N | EVANS | 99126 | STEVENS | TRUE | FALSE |
| DLB Eearthwork Co | 2823 29th Ave SW | Tumwater | 98512 | THURSTON | TRUE | FALSE |
| Pacific Cleaners | 3530 PACIFIC AVE SE | OLYMPIA | 98501 | THURSTON | TRUE | FALSE |
| Four Star Accessory Overhaul | 7711 NEW MARKET ST SW | TUMWATER | 98501-7228 | THURSTON | FALSE | TRUE |
| Western Refinery Services Inc | 2380 Grandview Rd | Ferndale | 98248 | WHATCOM | TRUE | FALSE |
| BAI Environmental Services | 752 Loomis Trail Rd Transporter | Lynden | 98264 | WHATCOM | TRUE | FALSE |
| Sanitary Service Co Inc | 1001 ROEDER AVE | BELLINGHAM | 98225 | WHATCOM | TRUE | FALSE |