

Household Hazardous Waste Management Plan for the State of Oregon 2005 – 2011



State of Oregon
Department of
Environmental
Quality

Prepared for DEQ by



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Executive Summary

The Oregon Department of Environmental Quality (DEQ) has provided household hazardous waste (HHW) collection events in communities throughout Oregon since 1991. Historically, DEQ's HHW program focused resources on providing collection services for HHW and on producing and distributing educational materials. In its 1999 HHW Plan, DEQ shifted its focus to increase support for local governments to manage HHW at the local level. DEQ expanded grants to local governments for planning and facility development and decreased the number of state-funded collection events. By 2006, permanent HHW facilities will serve about two-thirds of the state's population, and less than one in five residents will lack HHW service through facilities or local events. Oregon's HHW management needs are evolving, and DEQ is updating the state's HHW Plan to address those needs.

The purpose of this HHW Plan is to set the direction and activities for DEQ's HHW program over the next six years, beginning in late 2005 and ending in June 2011. This plan assumes that funding for the program will remain approximately \$800,000 per biennium. The goals and activities outlined in this plan were developed through evaluation of several alternative options, input from Oregon stakeholders including local government representatives, and guidance from DEQ management.

The primary purpose of DEQ's HHW Program is to **minimize risks from HHW to Oregonians and the environment**. Consistent with the program's overall mission, the overriding goals for the 2005-2011 HHW Plan are to **reduce the generation of household hazardous wastes and ensure the provision of HHW services addressing the highest risks first**. Other program goals are to forge partnerships with local governments, ensure minimum service levels for HHW collection and education, and provide high-quality services efficiently and cost-effectively.

The plan aims to reduce the generation of HHW and associated risks by focusing collection, waste prevention, education, and additional program resources on materials and situations that pose the greatest risks to human health and the environment. A Priority Assessment study will be conducted in the first year of the program to guide DEQ in determining where to focus resources to meet the overall goals of the HHW Plan and program. To accomplish the program and plan goals, DEQ will support the following HHW-related activities:

Planning, Monitoring, and Evaluation

- DEQ will conduct a Priority Assessment to establish funding and program priorities based on relative risks to human health and the environment.
- DEQ will conduct a baseline study to obtain better information on customer needs and program performance. The study will be used to assess the program's effectiveness, define program performance measures, and assess customer awareness, interests, and needs associated with HHW.
- Regular evaluation will occur throughout the next six years so that program activities can be adjusted, if necessary, to maximize efficiencies and environmental benefits.
- Planning grants will continue to be available to local governments that have not planned. For local governments that have already planned, the grant program will be expanded to help develop specialized plans that address high-risk situations or materials and to update existing plans as needed.
- Increased funding will support HHW-related training of local government representatives and DEQ Technical Assistants. Support may include scholarships to attend local and regional HHW conferences or specialized training and certification courses.

Collection Services

- DEQ will continue to fund facility grants, sized appropriately to meet local needs, to support the development of local HHW collection facilities.
- DEQ will continue to fund collection events. However, event locations will be based on DEQ-determined risks, needs, and priorities, rather than applications from local event sponsors. DEQ will not fund collection events in counties that have established HHW collection services or facilities.
- Limited reimbursement will be provided to counties to accept out-of-county waste.
- DEQ will operate special programs to provide additional collection opportunities for mercury and other high-priority waste and will continue the mercury thermometer exchange.
- DEQ will continue to support local governments that have adopted or are currently developing local HHW plans by continuing and expanding the purchaser program and by providing design assistance to establish HHW facilities.

Waste Prevention and Education

- DEQ will implement a comprehensive behavior change program to reduce the use and generation of hazardous products and wastes.
- DEQ will continue to award education grants. Priority will be given to those that address the highest-risk situations and that support local waste prevention efforts.
- DEQ will promote and expand the use of the State HHW hotline.

Market Change

- DEQ will continue to engage in and support product stewardship efforts focused on high-hazard materials, such as mercury thermostats.

1 Introduction and Plan Goals

Since 1991, the Oregon Department of Environmental Quality (DEQ) has provided communities around the state with household hazardous waste (HHW) collection events, educational materials, technical assistance, and grants for planning, facilities, and other HHW management activities. Prior to its 1999 HHW Plan, DEQ focused its efforts on providing direct collection services and on recovering leftover paint through the experimental Paint Smart program. From 1999 to 2005, DEQ shifted its focus to helping local governments build their own capacity to meet local needs for HHW management. The 1999-2005 HHW program provided grants and technical assistance to local governments for developing HHW plans and programs suited to their areas. Funding for planning, facility, and education grants, as well as the decision not to continue Paint Smart program, were key changes in DEQ's HHW program in 1999. This updated HHW Plan is intended to address the needs and issues that have emerged since the 1999 plan was formulated and to continue to provide HHW-related support to DEQ customers and local governments.

Oregon DEQ has provided HHW management and collection services since 1991.

The purpose of this HHW Plan is to guide the household hazardous waste activities of the Oregon DEQ for the next six years, through June 2011. The goals and program activities set forth in the plan are a result of an assessment of the 1999-2005 HHW Plan, input from stakeholders and interested parties throughout Oregon, and identification of key needs and operational issues associated with the ongoing delivery of HHW collection and education services. A key element shaping the new HHW program activities and goals are the four strategic priorities that guide DEQ's work:

- Priority 1:** Deliver excellence in performance and product;
- Priority 2:** Protect Oregon's water;
- Priority 3: Protect human health and the environment from toxics;** and
- Priority 4:** Involve Oregonians in solving environmental problems.

The overriding purpose of the HHW program is to minimize risks from HHW to Oregonians and the environment.

While DEQ's Household Hazardous Waste Program supports all four priorities, **protecting human health and the environment from toxics** provides the program's core purpose and mission. The key actions under this priority are to reduce and prevent toxic releases to air, water, and land.

1.1 HHW Risks

Small quantities of hazardous materials are common in the homes of most Oregonians. Examples include mercury and mercury-containing items (e.g., thermostats, thermometers, and fluorescent bulbs), pesticides, herbicides, poisons, corrosives, solvents, fuels, paints, certain types of batteries, motor oil, and antifreeze. Some of these materials can be highly toxic in minute quantities (e.g., mercury) and so represent significant hazards to human health and the environment.

Risks from HHW stem from improper use, handling, and disposal of hazardous materials, often due to insufficient knowledge of the hazards associated with products or a lack of access to adequate disposal facilities. HHW wastes may be dumped improperly, disposed of in unlined landfills, burned in incinerators and burn-barrels, spilled in homes and businesses, or poured down household and storm drains. The outcome of improper use and handling of HHW is the potential contamination of surface water, groundwater, air, and wastewater treatment systems and resulting exposure to humans. As a result, Oregon DEQ has a compelling interest in



encouraging and supporting the proper management of HHW, including safer use, handling, and disposal.

1.2 Plan Goals

At the outset of its planning process, the Department of Environmental Quality, with substantial input from stakeholders, established key goals for the new HHW Plan. The overriding goal for 2005-2011, consistent with the agency's third strategic priority, is to **reduce the generation of household hazardous wastes and ensure the provision of HHW services addressing the highest risks first**. In identifying and addressing these risks, DEQ will consider high-risk materials, threatened environments, and sensitive or highly exposed populations. Other goals guiding DEQ's future program activities toward this outcome are to:

The overall goal of the HHW Plan is to reduce the generation of HHW and ensure the provision of services that address the highest risks first.

- **Maintain and strengthen partnerships** with local governments;
- **Ensure minimum service levels** for collecting HHW and educating customers; and
- **Provide services in an efficient and cost-effective manner** while maintaining high quality standards.

1.3 HHW Program Customers, Partners, and Stakeholders

The Department of Environmental Quality's HHW program has traditionally served many different constituents – from the households who purchase, use, and dispose of products with hazardous components, to the local governments that have been the recipients of grants and collection events, to private groups and non-profit organizations that either provide HHW services themselves or advocate for such programs throughout the state. One challenge for DEQ has been to distinguish between its customers (those being served), partners, and stakeholders. Accordingly, as part of this planning process, DEQ clarified these roles and relationships as a fundamental starting point to developing a clear, effective HHW Plan and program for the future. These definitions are as follows:



- **Customers** for this program are households and Conditionally Exempt Generators (CEGs), which include businesses that generate relatively small quantities of hazardous waste, such as dry cleaners and vehicle maintenance shops.¹ Many of the HHW services provided to households also apply to CEGs. Since Portland Metro is required to provide services inside its jurisdiction in Clackamas, Multnomah, and Washington counties, households and CEGs in this area are not direct customers for collection.
- DEQ's **partners** in meeting the needs of its customers are primarily local governments, which have the primary responsibility for HHW collection and education in Oregon. Secondary partners include utilities, retailers, and waste haulers, and other private or non-profit entities engaged in HHW

¹ A Conditionally Exempt Generator, or CEG, is defined as a facility that generates up to 220 pounds of hazardous waste (or 2.2 pounds of acutely hazardous waste) in a calendar month, or accumulates on-site up to a total of 2,200 pounds of hazardous waste (or up to 2.2 pounds of acutely hazardous waste) at any time.

management or service delivery. Accordingly, the grants and assistance provided to local governments over the last several years are intended to develop the capacity of these entities as *partners*, not to serve them as *customers*.

- Key **stakeholders** include health and environmental advocacy organizations, local government staff, engaged elected officials, and industry representatives. These stakeholders have been deeply engaged in developing the HHW Plan and assessing the effectiveness of the current program.



2 Overview of Planning Process

The recommended activities presented in this 2005-2011 HHW Plan are the result of a process that considered several alternative directions, plan goals, and program activities. The planning process involved an assessment of the outcomes resulting from the 1999 HHW Plan and an identification of key strategic and operational issues to address in the new HHW Plan. As part of the planning process, DEQ conducted an online survey of stakeholders to obtain feedback and perspectives on the HHW program activities to date and organized a stakeholders' meeting to obtain direct feedback on future program strategies and options. A summary of the planning process, including results of the stakeholder survey and meeting, are presented in the following sections; detailed findings from the stakeholder survey and meeting are presented in the appendices.

Input from DEQ management, staff, and stakeholders shaped the 2005-2011 HHW program activities and goals.

2.1 Assessment of the 1999 HHW Plan

Since 1999, DEQ has spent nearly \$2.5 million on implementing its statewide HHW program. During this time, DEQ has funded the development of county-level HHW plans, provided grants to build local collection facilities, and sponsored HHW collection events, among other activities. As a direct result of DEQ support, many counties have developed local HHW management plans, and new permanent facilities are opening in many parts of the state. Consequently, by 2006, about two-thirds (68%) of Oregon's population will live in counties served by permanent HHW collection facilities, and 14% will live in counties with locally sponsored HHW collection events.

With the imminent opening of these new local facilities providing residents with year-round access to HHW collection services, one of the core objectives of the 1999 HHW Plan has been largely realized in some areas of the state. However, not all county governments have developed or implemented plans, so not all residents have access to HHW collection services. In addition, other important objectives of the 1999 HHW Plan have not been fully achieved, most notably related to waste prevention education and program evaluation. Also new issues and challenges have emerged that need to be addressed. In sum, Oregon's HHW management needs are evolving, and the state is ready for a new stage in HHW planning – hence the current update of the HHW Plan for 2005-2011.

Key outcomes of Oregon's 1999 HHW Plan, discussed further in Appendix A, include:

- **Planning grants.** From 1999 through 2004, DEQ awarded 18 planning grants totaling \$160,000. These grants have produced 10 completed local HHW plans to date.²
- **Permanent HHW facility grants.** DEQ has awarded grants totaling about \$400,000 to date to five county governments to create their own local HHW collection programs through development of permanent facilities. These new



² The 10 completed local HHW plans include Columbia, Deschutes, Douglas, Hood River, Lincoln, Marion, Polk, Sherman, Umatilla, and Wasco counties. Seven counties with plans in progress are Baker, Benton, Coos, Klamath, Linn, Union, and Wallowa counties.



facilities will serve counties with a combined population of more than half a million residents.³

- **Collection events.** From 1999 to 2004, DEQ sponsored 42 HHW events around the state, serving areas with populations totaling more than half a million people. These events drew more than 12,000 participants and collected more than 1.3 million pounds of HHW, at a cost of nearly \$1.3 million. DEQ sponsored an additional seven collection events in 2005, but participation data from those events are not yet available.

*Between 1999-2004,
DEQ funded:*

5 facility grants

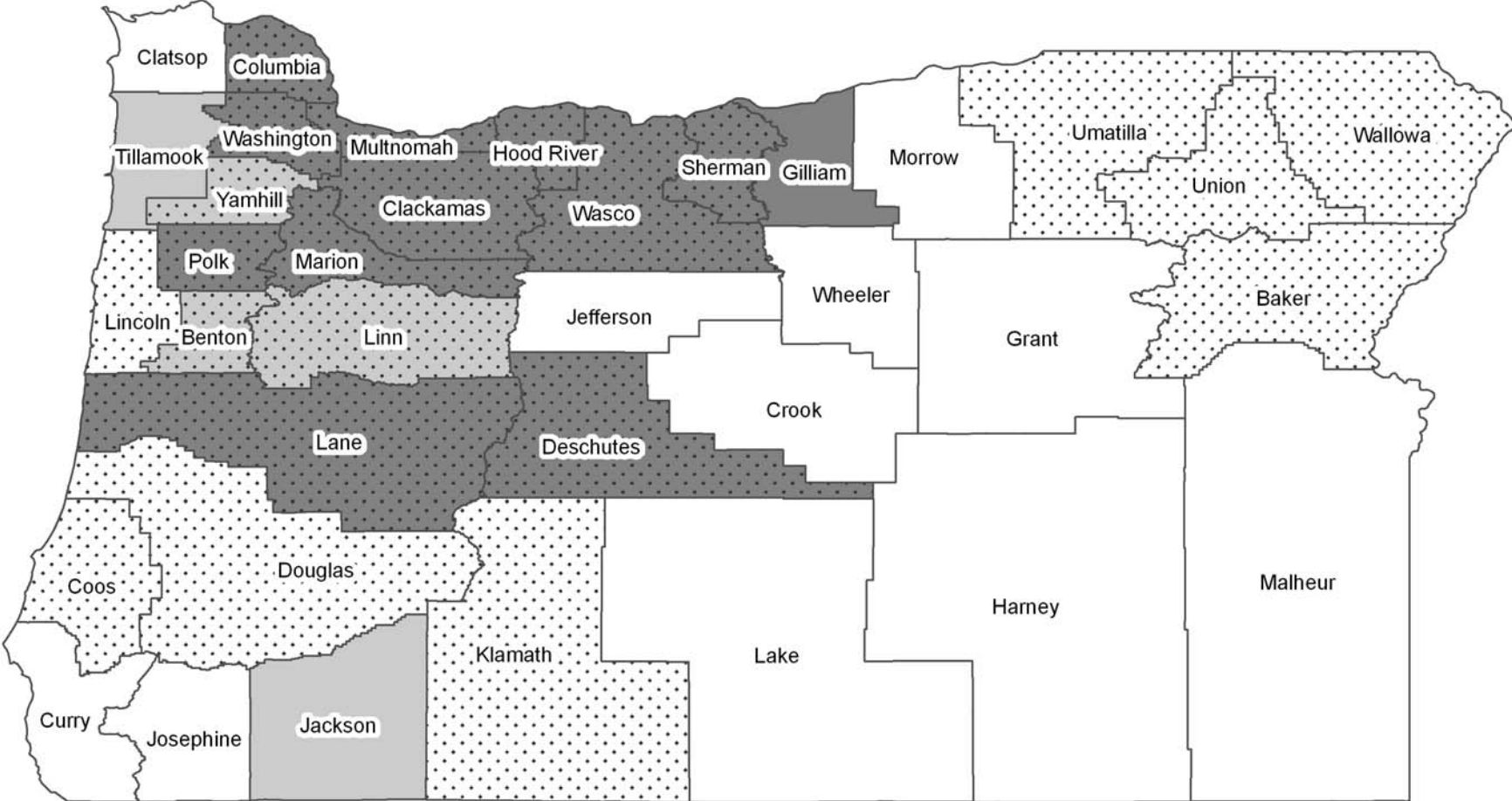
*18 planning grants,
including 10
completed plans*

42 collection events

The map in Figure 1 illustrates the progress made under the 1999 HHW Plan and highlights the local HHW planning status of Oregon's 36 counties. The dark gray areas show counties that will have permanent local HHW facilities operating by 2006 or have intergovernmental agreements enabling their residents to dispose of HHW materials at facilities in neighboring counties. The light gray areas represent counties that provide HHW collection opportunities only through local events, rather than permanent facilities. The white areas are counties that lack local HHW service. Additionally, the dot overlay denotes counties that have adopted or are currently developing local plans for HHW management.

³ In 2005 and 2006, new facilities will open in Marion, Columbia, Deschutes, Hood River, and Wasco counties. The Marion facility will also serve Polk County, and both the Wasco and Hood River facilities will serve Sherman County. Yamhill County incorporated HHW planning into its solid waste planning process and is currently implementing its plan through local events with a truck from Marion County.

Figure 1. HHW Collection Service and Planning Status in Oregon Counties



HHW Collection Service

- HHW Facility Access
- Local Events Only
- No Local Service

Local HHW Plan Status

- HHW Plan Adopted or in Process

While implementation of the 1999 HHW Plan resulted in a significant increase in HHW service, it has also led to new challenges associated with operating the state's HHW program. These challenges include:



- Determining whether and how to reimburse counties with permanent facilities for HHW brought by out-of-county residents;
- Determining how to select locations for HHW collection events;
- Helping local governments to maintain and improve local HHW programs once they are in place;
- Meeting the needs of the residents in the 14 counties that have not prepared their own HHW plans or the three counties that have planned but have not implemented their plans;⁴
- Determining whether and how to focus agency resources on waste prevention and education to reduce the generation of HHW; and
- Obtaining adequate information on customer needs and program performance in order to maximize the effectiveness of DEQ services and return on public funds invested in HHW management.

2.2 Stakeholder Perspectives

Stakeholders were invited to provide comments during two stages of the planning process: 1) an online survey regarding the 1999 HHW Plan and status of current HHW programs, and 2) a stakeholder meeting to review alternative goals, strategies, and options for the 2005-2011 HHW Plan.

Stakeholder Survey

In February 2005, DEQ's consultant, Cascadia Consulting Group, conducted an online survey of stakeholders from local governments, waste haulers, and other groups such as nongovernmental organizations, HHW contractors, and trade associations. The purpose of the stakeholder survey was to ascertain stakeholder perspectives on the 1999 HHW Plan and existing program activities. Of 33 stakeholders contacted, 27 responded to the survey, a response rate of over 80%.

The perspectives of these stakeholders can be summarized as follows:

- The 1999 HHW Plan worked well, particularly with regard to planning and facility grants;
- Overall the convenience and quality of local collection services are good to excellent, while the frequency of those services rated mostly fair to poor;
- It is challenging for some local governments to obtain adequate funds to support and maintain local HHW management programs;
- Manufacturers and retailers should play a larger role in supporting local HHW programs;

Early in the 2005 HHW planning process, a survey obtained feedback from 27 stakeholders on the current plan, its implementation, and their recommendations for the future program.

⁴ The following counties have not yet prepared local HHW plans: Clatsop, Crook, Curry, Gilliam, Grant, Harney, Jackson, Jefferson, Josephine, Lake, Malheur, Morrow, Tillamook, and Wheeler. Douglas, Lincoln, and Umatilla counties have not implemented their existing HHW plans.

- As DEQ sets priorities, emphasis should be given to addressing the largest environmental risks and serving areas least able to provide and fund local HHW services; and
- DEQ resources should be focused on product stewardship, market transformation, and waste prevention education first, with lower priority placed on state-funded collection events and ensuring equity and comparable service levels across the state.

Detailed results from the stakeholder survey are presented in Appendix B.

Stakeholder Meeting

In June 2005, DEQ convened a meeting in Salem to obtain feedback from stakeholders on the assessment of the 1999 HHW Plan and to discuss goals, scenarios, and program options for the 2005-2011 HHW Plan. A briefing paper, included in Appendix C, was distributed in advance, and 27 stakeholders attended the meeting. To solicit feedback from stakeholders outside the Willamette Valley and others who were unable to attend the session, additional input was solicited using electronic mail. Of those contacted, 10 stakeholders provided comments by email on the scenarios and goals for the HHW Plan.

The session included presentation and discussion of alternative scenarios as possible directions for the new HHW Plan. Four scenarios representing different visions and approaches for how best to invest DEQ resources to achieve the mission of **protecting human health and the environment from toxics** were presented:

- **High-risk Focus** – concentrating resources on addressing the highest risks to human health and the environment;
- **Waste Prevention First** – focusing resources primarily on activities such as education and product stewardship that seek to reduce the toxicity, use, and disposal of products that contain HHW;
- **Basic Collection Service** – ensuring that all residents receive a minimum level of HHW collection service; and
- **Status Quo/Baseline** – continuing the current program with minimal changes.

In addition, stakeholders were presented with a set of “core activities” consisting of programs and services recommended for continuation across all scenarios and strategic directions.

Detailed comments from the meeting are summarized in Appendix D. Key outcomes from the meeting included:

- Stakeholders generally agreed that it was essential to implement the programs and services that comprised the “core activities”;
- Stakeholders chose as their top goal for the new HHW Plan to “reduce generation of HHW waste and associated risks”;
- Stakeholders emphatically rejected maintaining the status quo, as that scenario received minimal support; in rejecting the **Status Quo/Baseline** scenario, stakeholders recommended a stronger leadership role for DEQ in proactively addressing HHW in Oregon;

The stakeholder review process, including meeting participation and electronic responses, generated feedback from nearly 40 stakeholders.

Stakeholders agreed on the need for change, with minimal support for continuing with the status quo.



Stakeholders agreed that the future HHW program should focus on addressing the highest-hazard situations so that risks associated with HHW can be cost-effectively reduced.

- Stakeholders were divided on which scenario represented the best vision for the future with strong support for the **High-risk Focus** and **Waste Prevention First** scenarios as well as support for the **Basic Collection Service** approach;
- Stakeholders favored plan activities such as grants, technical support, and other incentives to local governments to facilitate implementation of their HHW plans and support their collection programs; and
- Stakeholders chose engaging manufacturers and retailers in HHW collection as a preferred plan element as well as focusing funding and outreach on high-hazard situations and materials.

The conclusion reached from these stakeholder processes is that there is a strong consensus for change – for moving forward with new programs and approaches to achieve DEQ’s strategic priority of protecting human health and the environment from toxics – and an equally strong consensus that programs and resources need to focus on the highest-hazard situations, so that risks associated with HHW can be cost-effectively reduced. Beyond that, stakeholders expressed different points of view about the level of emphasis on education, waste prevention, market change, and collection services, likely reflecting the differing needs of their communities and the services already in place in those communities.

DEQ carefully considered the input from stakeholders. The recommended activity program, presented in Section 3, represents an integrated approach to achieving DEQ’s strategic priorities. It includes the following elements:

- A blend of education, marketing, and outreach intended to reduce generation of HHW and decrease improper disposal;
- Collection services to meet the minimum needs of all residents, focusing on high-risk waste and situations;
- Continued action to stimulate market change – reducing the toxicity of products sold for household use – through product stewardship;
- Continued support for local government partners; and
- A renewed emphasis on obtaining adequate information on customer needs and priorities as well as effective, ongoing evaluation of program performance.

3 HHW Plan Activities for 2005-2011

The 2005-2011 HHW Plan consists of four main elements:

- 1) Planning, Monitoring, and Evaluation
- 2) Collection Services
- 3) Waste Prevention and Education
- 4) Market Change

Within each of these service areas, DEQ's goal is to focus resources on the highest priority needs and risks. With the starting point of understanding and meeting customer needs and reducing risk, DEQ will continue to work with local government partners to build their capacity for collection. DEQ will also focus upstream on prevention and market change to reduce the long-term risks associated with household hazardous waste. Table 1 provides a summary of the services that DEQ will provide under the 2005-2011 HHW Plan, and the remainder of this chapter provides a description of these services.



Household hazardous waste is the primary driver for these services, but DEQ programs will also seek to serve Conditionally Exempt Generators (CEGs) where appropriate. DEQ will allocate resources among these activities according to the guidance outlined in the HHW Plan Budget section of this document, beginning on page 27.

Table 1. Summary of DEQ HHW Program Services for 2005-2011

| Planning, Monitoring, and Evaluation | |
|---|--|
| 3.1.1 Priority Assessment Study | This study, scheduled for 2006, will establish funding and program priorities based on relative risks to human health and environment due to materials, geographic conditions, and populations. |
| 3.1.2 Baseline Study | DEQ will collect baseline data on customer needs and program performance. The study will assess the program's effectiveness, define program performance measures, and assess customer awareness, interests, and needs associated with HHW. |
| 3.1.3 Ongoing Evaluation | Ongoing evaluation will occur each year so that program activities can be adjusted, if necessary, to maximize efficiencies and environmental benefits. A comprehensive evaluation will occur in approximately 2010, near the end of the plan period. |
| 3.1.4 Planning Grants | Planning grants will continue to be available to local governments that have not planned. For local governments that have already planned, the grant program will be expanded to help develop specialized plans that address high risks; grants will also be available to update existing plans as needed. |
| 3.1.5 Technical Assistance and Training | Funding to support HHW-related training of local government representatives and DEQ Technical Assistants will be continued and somewhat expanded. Support may include scholarships to attend local and regional HHW conferences or specialized training and certification courses. |



| Collection Services | |
|---|---|
| 3.2.1 Facility Grants | Grants to local governments to design and construct HHW collection facilities will continue to be available. |
| 3.2.2 DEQ-funded Collection Events | DEQ-sponsored and funded collection events will be continued. However, event locations will be based on DEQ-determined risks, needs, and priorities, rather than applications from local event sponsors. Collection events will not be offered in counties that have their own HHW collection services or facilities. |
| 3.2.3 Out-of-County Reimbursement | Limited reimbursement will be provided to counties that accept out-of-county waste. |
| 3.2.4 Purchaser Program | The purchaser program will be continued and adapted to address the needs of counties with permanent facilities. |
| 3.2.5 Mini-facility Design | DEQ will design a standard “mini-facility” or high-hazard locker for installation at transfer stations. Once designed, DEQ will prepare a guide on how to establish a mini-facility using the sample design and available products. |
| 3.2.6 Mercury Collection | DEQ will continue to pay for mercury collection and disposal at DEQ-sponsored collection events and other collection venues that are cost-effective, while expanding mercury education and outreach. The thermometer exchange program will continue. |
| 3.2.7 High-risk Material Collection | DEQ will provide special funding to local governments for collection of high-hazard HHW, with targeted populations, materials, and locations determined in the Priority Assessment. |
| Waste Prevention and Education | |
| 3.3.1 Comprehensive Behavior Change Program | DEQ will design and implement a comprehensive behavior change program, including local grant opportunities, to reduce the use and generation of hazardous products and waste. |
| 3.3.2 Education Grants | Education grants will continue to be awarded. Priority will be given to applications that address the highest-risk situations and that focus on waste prevention. |
| 3.3.3 Expand State Hotline | The statewide HHW hotline will be continued, with expanded promotion and upgraded services to meet customer needs. |
| Market Change | |
| 3.4.1 Mercury Thermostat Project | DEQ-led product stewardship efforts related to collection of mercury thermostats will be continued. |
| 3.4.2 Other Product Stewardship Initiatives | DEQ will remain active in regional and national forums that engage manufacturers, wholesalers, and retailers in reducing and managing HHW risks. |
| 3.4.3 Policy Initiatives | DEQ will monitor policies and initiatives undertaken locally and in other states that seek to reduce the use and risks associated with hazardous products and HHW. |

3.1 Planning, Monitoring, and Evaluation

Purpose and Overview

A key finding of the assessment of the 1999 HHW Plan was that DEQ lacks the information needed to 1) identify the highest-hazard situations related to HHW management in Oregon; 2) understand the current behaviors and needs of households (DEQ's customers) and whether the services provided meet those needs; and 3) effectively monitor and evaluate program performance relative to objectives and needs. This information is deemed vital to meeting the goals of the 2005-2011 HHW Plan, so these aspects of the new plan are presented first.

In addition, under the new HHW Plan, DEQ will continue to support local government planning, with the long-term goal of having as many counties as are capable assume full responsibility for HHW management in their communities. These program activities are also presented in this section.

With this renewed emphasis on ongoing, focused planning, monitoring, and evaluation, DEQ's goal is to ensure that funds are spent wisely and efficiently. The state seeks to achieve the greatest possible return on resources invested, in terms of maximum reduction in hazards associated with HHW and in meeting the real needs and interests of DEQ's customers to the greatest extent possible given finite resources.

Intended Outcomes

- Priority Assessment completed in 2006;
- Methodology for ongoing evaluations and baseline performance measures established in 2006;
- Ongoing program evaluation;
- Funding to local governments for planning grants; and
- Ongoing training and technical assistance.

3.1.1 Priority Assessment

In 2006, DEQ will conduct a Priority Assessment to determine the relative risks from HHW to human health and the environment in Oregon. The findings from the assessment will be used to establish risk-based criteria for allocating resources among the following activities:

- Facility, planning, and education grants to local governments;
- DEQ-funded collection events in selected communities;
- Other high-risk collection events or programs; and
- Waste prevention, market change, and product stewardship initiatives.

Upon completion of the Priority Assessment, the program activities and services set forth in this plan will be reevaluated to incorporate findings from the assessment. Grant opportunities for planning, facilities, and education as well as the location of collection events could change as a result of the assessment. For example, if the assessment reveals that funding events in certain counties will better protect human



Purpose of the Priority Assessment:

- *Determine relative risks from HHW to human health and the environment*
- *Allow DEQ to focus resources on highest-hazard situations*

health and the environment from HHW risks, DEQ will plan future state-funded collection events for residents and CEGs accordingly. The Priority Assessment will help guide the type (e.g., full collection or targeted materials) and number of collection events.

The Priority Assessment will rely primarily on existing information sources. It will seek to compile available information into a useful decision-making tool that will help DEQ staff plan the implementation of future HHW programs, including grants, events, geographic initiatives, targeted populations, and priority waste streams. Though limited in scope by available resources, the study will seek to answer three basic questions:



- **What household wastes** pose the greatest danger to human health and the environment? Considering such factors as toxicity, quantities, and impacts of improper handling, management, and disposal, DEQ will create a list of priority materials on which to focus its efforts under the 2005-2011 HHW Plan. High-hazard wastes identified in the 1999 HHW Plan include **poisons** (e.g., pesticides, herbicides, fungicides, PCBs), **heavy metals** (e.g., mercury, lead, nickel-cadmium batteries), **flammables** (e.g., solvents, gasoline, kerosene, oil-based paint), and **reactives and corrosives** (e.g., acids, bases, and oxidizers, such as pool chemicals). Materials such as motor oil, oil filters, latex paint, and antifreeze are typically considered relatively low-risk waste.

The assessment may cover a range of materials, including emerging issues such as electronics and pharmaceuticals. In particular, it will specifically consider the costs, benefits, tradeoffs, and risks associated with continuing or ending the collection of latex paint in HHW programs.

- **Where in the state** are risks to human health and the environment likely to be greatest? The review will consider such factors as quantities generated, population density, the presence of unlined landfills, shallow drinking water aquifers, current disposal practices (e.g., the use of burn barrels), incineration, existing HHW programs, intensive agricultural pesticide use, on-site septic systems, surface water, hobby mining activities, older housing stock, and air toxics modeling. Results of this geographic assessment will be mapped using GIS. DEQ may work with Metro and other jurisdictions in determining the geographic scope of the assessment.
- **Which populations** are likely to experience the greatest risks from HHW? The assessment will consider known usage and disposal practices, education levels, access to services, and other factors.

The results of the assessment will be an identification of highest-, high-, medium-, and low-priority materials, regions, and populations and a determination of where the highest hazards overlap. The 1999 HHW Plan identifies high-hazard wastes but does not prioritize risks by region or population, nor does it focus on the risks associated with toxicity. This study is not intended as a full-fledged risk assessment but as a basis for establishing priorities using best available information and studies. The Local Hazardous Waste Management Program in King County, Washington, recently conducted a similar priority-setting exercise, which may serve as a useful model for DEQ's assessment.

By identifying the priorities for materials, regions, and populations, the Priority Assessment will seek to identify where the highest hazards overlap.

3.1.2 Baseline Study of Program Needs and Performance

In parallel with the Priority Assessment, DEQ will conduct a study to obtain baseline information for benchmarking program performance and customer needs. The purpose of this baseline study is to establish a starting point from which DEQ can assess program effectiveness and customer awareness, interests, and needs and to define performance measures for the program. The study will also provide the basis for ensuring that DEQ's HHW management activities are meeting the needs of customers and that sufficient resources are devoted to this effort.

In 2006, DEQ will conduct a baseline study of Oregon residents and HHW program users, which may include information on the following topics:

- Customers' knowledge, attitudes, and behaviors related to HHW as well as satisfaction with existing HHW collection services;
- DEQ-funded and other collection opportunities, including number of events, number of participants, material types and quantities collected, and any outreach or education provided;
- Costs and cost-effectiveness of collection services;
- Number and cost of facility reimbursements, distance traveled to facilities, and the number of requests for facility reimbursements that cannot be granted due to limited resources; and
- Additional information on statewide HHW collection or programs that will enable DEQ to create performance measures.

Information collected will likely be both qualitative and quantitative, using existing sources where possible (e.g., surveys and data previously collected by DEQ) and new survey research when needed. DEQ may form partnerships with local governments, retailers, and other stakeholders to conduct HHW surveys as appropriate.

Data collected during the baseline study may be combined and maintained in a database so that subsequent evaluations of the program (see 3.1.3 Ongoing Evaluation) can be compared to the baseline information. This baseline data will be especially important to the development of the education programs called for in this plan.

The baseline study will serve as a benchmark from which DEQ can measure the performance of the HHW Program. The questions and type of data collected during the study will serve as the survey template used for ongoing program evaluation.

3.1.3 Ongoing Evaluation

DEQ is slated to conduct ongoing evaluation of the HHW Program annually as well as a comprehensive evaluation in 2010, near the end of the 2005-2011 Plan period. The purpose of the annual and comprehensive evaluations is to ensure that plan goals are being met and to provide the ongoing feedback for making mid-course adjustments to program activities, if needed, to maximize efficiencies and environmental benefits.

The annual evaluations may include information on HHW collection opportunities, including DEQ-funded collection events, other events, facilities, collection services, and the reimbursement program. The annual evaluations may cover the types and quantities of materials collected, number of participants, costs and cost-effectiveness,

In 2006, DEQ will conduct a baseline study of Oregon residents and HHW program users that will serve as a benchmark from which DEQ can measure performance of the HHW Program.



Program evaluations will provide DEQ with feedback to determine if plan goals are being met and provide the basis for mid-course adjustments.



and other relevant data on HHW collection and programs statewide. Where feasible, evaluations may include information on residents' knowledge, attitudes, behaviors, and satisfaction levels related to HHW, as addressed in the baseline study. DEQ will prepare annual reports based on this information.

The comprehensive evaluation, scheduled to occur in the third biennium, will involve a more detailed analysis of the HHW program and its components, using the methodology developed as part of the baseline study. The findings of the evaluation will inform the preparation for and development of the next six-year plan.

In addition, DEQ may conduct evaluations of education programs, including the comprehensive education initiative described in section 3.3.1 and the education grants covered in section 3.3.2. Funding for these education evaluations will be included in the budget for each program.

3.1.4 Planning Grants

DEQ will continue to provide grants to local governments to plan for HHW management in their communities. The purpose of these grants is to encourage counties that have not planned to initiate the planning process and to provide counties that have already planned with resources to take additional steps in managing high-hazard HHW. Some funds will also be available to counties for updating existing HHW plans as needed. Ideally, all counties in Oregon will complete a local plan to manage HHW and serve the HHW-related needs of residents in their communities.

Two types of plans will be funded in the coming years:

- For counties that have not yet prepared HHW plans, DEQ will offer grants of up to \$15,000 to help local governments prepare their own HHW plans; and
- For counties with existing plans, DEQ will provide grants of up to \$10,000 for developing specialized plans to address the highest-risk situations and for updating and implementing local HHW plans as needed.

For counties with existing HHW plans, specialized planning should address goals identified in the upcoming statewide Priority Assessment, including increasing participation in HHW programs, collecting targeted materials, and protecting sensitive populations. Examples include HHW collection from homebound residents and special mercury collection efforts. These efforts may result in updates to existing HHW plans or stand-alone supplementary plans. Counties that have not yet implemented their existing HHW plans can request up to \$10,000 to update and begin implementation of their local plans.

3.1.5 Technical Assistance and Training to Local Governments

DEQ will continue to provide technical assistance and training to local governments to aid them in developing and implementing their own HHW management programs. DEQ will also train its regional Technical Assistants to provide support to local governments on the following topics:

- Inspection and permitting of regulated HHW collection facilities;
- Assistance with development of local HHW plans, facilities, and educational programs; and

Two types of planning grants will be funded in the coming years:

Grants up to \$15,000 for counties that have not prepared an HHW plan

Grants up to \$10,000 for counties with existing plans that would like to provide specialized local services to address high-risk situations

- Overall assistance with local HHW management.

DEQ will also provide limited funding for ongoing training of government staff members to improve local HHW management capabilities. Training for both the Technical Assistants and local government representatives may include:

- Scholarships to attend state or regional HHW conferences; and
- DEQ trainings or support to attend trainings that meet OSHA requirements or other comparable trainings.

3.2 Collection Services

Purpose and Overview

Much progress has been made in building the capacity of local governments to provide collection services to residents through fixed facilities. By the end of 2006, approximately two-thirds (68%) of all Oregon residents will live in counties served by such facilities.⁵ Locally sponsored collection events will provide service to counties representing an additional 14% of the population. Accordingly, under the 2005-2011 HHW Plan, DEQ will not need to play as significant a role in collecting HHW as it has in the past. However, nearly one in five residents (18%) continue to lack local HHW service through permanent collection facilities or other local collection services, so a significant unmet need remains.⁶ In addition, DEQ can play a constructive role in resolving some of the issues that have emerged as local governments have assumed responsibility for HHW management, such as reimbursement for accepting HHW from outside their jurisdictions.

The purpose of the activities in this section of the plan, therefore, is to address and resolve these needs and issues and so ensure a minimum level of collection service for all of DEQ's customers. A related purpose is to ensure that the needs and concerns of DEQ's partners are addressed so that services are delivered effectively and efficiently to residents throughout the state.

Finally, it is important to understand that, under the 2005-2011 HHW Plan, fewer resources will be devoted to collection than in the past, as resources are shifted to waste prevention, education, market change, and evaluation. The available resources will be allocated to address the highest-hazard situations and help communities and residents with the greatest needs.



Under the 2005-2011 HHW Plan, resources will be dedicated to addressing the highest-hazard situations and to helping communities and residents with the greatest needs.

⁵ By 2006, these services will be available to residents of Columbia, Deschutes, Hood River, Lane, Marion, Polk, Sherman, and Wasco counties, plus the three counties in Metro's jurisdiction.

⁶ Counties lacking local HHW service or permanent facilities in 2006 will include:

- Counties with no HHW plans: Clatsop, Crook, Curry, Grant, Harney, Jackson, Jefferson, Josephine, Lake, Malheur, Morrow, and Wheeler;
- Counties currently in the planning process: Baker, Coos, Klamath, Union, and Willowa; and
- Counties that have developed but not implemented their HHW plans: Douglas, Lincoln, and Umatilla.

Counties that lack permanent facilities but have some HHW service through local collection events include Benton, Jackson, Linn, Polk, Tillamook, and Yamhill. By 2006, residents of Sherman and Polk counties will have access to permanent HHW facilities in neighboring counties.

Intended Outcomes

- New HHW facilities serving three or more counties, designed and constructed as a result of grants from DEQ to local governments;
- DEQ-sponsored collection events to address high-hazard situations in areas without local HHW services, as identified in the Priority Assessment and as resources allow;
- Reimbursements to support HHW facilities accepting waste from out-of-county residents and a mechanism for inter-county reimbursements;
- A new statewide contract for HHW collection and management services, which local governments may also purchase;
- Standard designs and guidance for local governments on how to build basic facilities using readily available products;
- Collection and disposal of mercury and mercury-containing products; and
- Support for local government collection of high-hazard materials, as identified in the Priority Assessment.



3.2.1 Facility Grants

As in the past, DEQ will continue to offer grants to local governments to fund the development of permanent local HHW collection facilities. The purpose of these facility grants is to encourage and support local governments to manage and collect HHW in their communities with minimal additional assistance from DEQ. Within this category, grants are available for two types of facilities:

- **Tier I facilities** provide new permanent HHW collection opportunities in areas without existing facilities; and
- **Tier II facilities**, including mobile facilities or vehicles, provide supplemental collection opportunities for areas already served but located significant distances from Tier I facilities.

By providing funding for different types of facilities, DEQ seeks to provide flexibility to local governments and to encourage the development of permanent collection service and facilities for highly hazardous waste.

Grants for Tier I facilities will cover costs up to \$40,000, plus \$1 per person served, up to a maximum of \$100,000 per facility. Grants for Tier II facilities will cover costs up to \$30,000. Grant funds may be used for facility engineering, construction, materials and equipment. They may also be used to cover up to half of first-year disposal costs, if desired, provided the facility uses DEQ's purchaser program. Tier II grants may also cover costs for mobile facilities or vehicles. Any Tier II permanent facilities must be located at least 20 miles from the county's Tier I facility.

Both Tier I and Tier II facilities must be designed to accept HHW from the public on a regularly scheduled basis and can be of various designs and sizes depending on the local situation. Facilities must be open at least one day in at least four different months of the year – no less than eight days per year and preferably more frequently. These facilities may be operated by local government personnel or by contractors under local government supervision. Mobile Tier II facilities must also meet these operating requirements. Existing DEQ guidelines provide more details for grant-

Grants will be provided for two types of permanent facilities:

Tier I facilities provide new collection opportunities in areas without existing facilities

Tier II facilities supplement and are located at least 20 miles from Tier I facilities

funded, permitted HHW facilities, and DEQ will disseminate additional guidelines for Tier I and II facilities shortly after this plan is adopted.

Every county and city is eligible to request funding for facilities, but a maximum of one Tier I grant and Tier II grants totaling up to \$30,000 will be funded in each county. To be considered for funding, a local government must submit a grant application along with an existing HHW plan. The application and local HHW plan must adhere to DEQ guidelines, as posted on the agency’s website.



Table 2 summarizes the provisions and requirements for these two types of facility grants, and Table 6 on page 35 provides more information on all types of grants funded under this HHW Plan. In addition to offering grants, DEQ will provide information as needed to counties on funding mechanisms for ongoing HHW collection and education, such as fees applied to garbage bills or disposed tonnage.

Table 2. Summary of Facility Grant Assistance and Requirements

| Description | Tier I Facility | Tier II Facility |
|---|---|---|
| Grant Amount (costs covered) | Eligible costs up to \$40,000–\$100,000, depending on population | Eligible costs up to \$30,000 |
| Service Type | Provides new service (no existing facility in county or service area) | Provides additional service to supplement Tier I facility; may include mobile units or vehicles |
| Number and Location | Maximum of one eligible Tier I facility per county | Maximum of \$30,000 in Tier II grants per county Must be located at least 20 miles from the county’s Tier I facility |
| Wastes Collected | At least two categories of high-hazard waste (poisons, heavy metals, flammables, and reactives/corrosives) | |
| Hours of Operation | Open to the public at least 8 days per year (at least 4 hours per day) At least one collection in at least 4 different months per year Available by appointment for special circumstances | |
| Eligible Expenses | Design, construction, equipment, and up to 50% of waste management fees for the first year of operation (purchased through DEQ’s contract); Tier II grants can cover mobile units or vehicles | |
| Planning and Permitting Requirements | Must have local HHW Plan approved by DEQ Facility must be permitted by DEQ | |

3.2.2 DEQ-Funded Collection Events

From 1991 to 2005, DEQ selected locations for HHW collection events through a competitive evaluation of local government applications. Under the 2005-2011 HHW Plan, DEQ will fund a limited number of collection events to provide a basic level of HHW collection service to residents in communities where no local services are available. This approach represents a significant shift in funding priorities for collection events compared with the 1999 HHW Plan. DEQ will use the following specifications to determine event locations and how many will occur in each county:

New Collection Program:

DEQ will continue to provide collection events in communities without other service.

Beginning in 2006, DEQ will identify communities for collection and form a queue of locations to schedule events.

- Top priority will be given to scheduling events in areas where needs and HHW risks to human health and the environment are highest, as determined in the Priority Assessment study;
- Events will occur only in areas without local HHW services;
- Events will occur in counties that have not had a DEQ-funded collection event in recent years; and
- Scheduling will seek to maintain a geographic balance of events throughout the state.

DEQ will identify communities for collection events based on the criteria listed above and form a “queue” of locations. DEQ will move down the queue, providing events to communities around the state as funds are available. Depending on the number of locations, their size, and available funds, it may take more than five years to complete one cycle through the queue. Benefits of this approach include:

- Reduced paperwork for local governments (no application process);
- Reduced staff time at DEQ to review and score event applications; and
- Improved ability to forecast the timing of events,
- Providing an incentive for local governments that are low on the queue to develop their own programs.

To form the queue of collection event locations, DEQ will:

- Exclude areas with permanent facilities in place or under active development, agreements with neighboring counties to provide collection services, and cities that have had at least one locally sponsored collection event in recent years.
- Determine which locations optimize convenience, coverage, and frequency, considering population size, distance traveled, and the timing of past events.
- Add cities that meet the criteria defined above to the queue and order them according to the time elapsed since the last event held in that city or county, placing locations that waited longest at the top of the list.
- Add or delete cities from the queue as needed if local governments initiate or discontinue collection programs.



DEQ's 2006 Priority Assessment may determine that certain communities have higher risks associated with improper management of HHW. Pending the results of the assessment, population centers determined to be at significantly higher risk may be repeated in the queue to increase the frequency of events in that area. After a community is provided with a DEQ-funded collection event, it will be moved to the

bottom of the queue. In return for having a DEQ-sponsored collection event, a local jurisdiction must fulfill certain roles and responsibilities, such as providing an event site and logistics, staff or volunteers, solid waste disposal, and promotion.

3.2.3 Out-of-County Reimbursement

DEQ will provide limited reimbursement to counties with permanent facilities, including Metro, for out-of-county waste. The purpose of the reimbursement program is to provide ongoing HHW collection opportunities for residents in areas without local collection service. Providing this service necessitates compensating counties for allowing residents from outside their jurisdictions to bring their HHW to a fixed facility for free.

DEQ has provided reimbursement to Metro for accepting out-of-county HHW since 1994 and to Lane County on a one-time basis. By 2006, eight facilities are expected to be operating in Oregon: Metro Central, Metro South, Columbia County, Deschutes County, Hood River County, Lane County, Marion County, and Wasco County. The local programs include both permanent facilities and events. As collection opportunities expand throughout the state, DEQ will expand its out-of-county reimbursement program. DEQ will also work with county governments to develop a mechanism and accounting system for counties to reimburse each other on an ongoing basis for management of out-of-county wastes.

Starting in 2006, residents seeking to participate in the HHW reimbursement program will need to call DEQ's toll-free number, 1-800-732-9253, to register for a collection facility. After registering, the caller may need to contact the facility directly to set up an appointment. DEQ will also continue the current Metro reimbursement program through June 2006. A new agreement with Metro and the other locally run programs will be negotiated to take effect in July 2006. Local programs will be reimbursed either on a per-car or per-cart basis to cover labor and disposal costs. A web-based tracking system will be created to monitor use of the voucher system.

Reimbursements will have a cap, but DEQ may consider creating an exemption on the cap amount for high-risk wastes, depending on the results of the Priority Assessment.

3.2.4 Purchaser Program

DEQ will continue its purchaser program, which allows local governments to "piggyback" on DEQ's statewide contract to schedule and pay for their own collection events and similar services. DEQ currently contracts with a licensed hazardous waste contractor, MSE Environmental and Safety, Inc., to provide collection events around the state and to transport and manage the wastes collected at those events. Before the current contract expires in 2007, DEQ will need to devote significant staff resources to the process of developing a new contract and hiring a contractor. The new contract may incorporate revisions intended to assist counties in obtaining contracted services to support their local HHW facilities.

3.2.5 Mini-facility Design

DEQ will direct the creation of a standardized "mini-facility" or high-hazard locker for installation at transfer stations or other solid waste facilities. The agency will contract with an outside expert to develop and design the mini-facility. Funding for



construction and installation of the mini-facilities will be supported by facility grants. Once the design has been created, DEQ will prepare a guidance document for local governments on how to establish a mini-facility using the sample design and available products. DEQ may also make recommendations on ways to improve efficiencies and reduce costs through better integrating HHW and solid waste collection programs, such as providing HHW lockers at transfer stations.

3.2.6 Mercury Collection

Mercury is a naturally occurring element that is highly toxic and can cause serious health problems. Many household products contain mercury, including thermometers, fluorescent lights, thermostats, batteries, dental fillings, and vehicle light switches. Improper disposal of these materials can release mercury to the environment, where it can harm humans and ecosystems. To reduce harmful exposure to mercury, DEQ initiated a pilot project in 2004 to collect mercury and mercury-containing waste from Oregon residents, free of charge.

DEQ's mercury collection program will continue. In the future, the program will:

Expand education and outreach efforts.

Continue to pay for mercury collection and disposal from CEGs.

Under the 2005-2011 HHW Plan, DEQ will expand its mercury collection program to support Oregon's mercury reduction strategy and decrease the amount of mercury in the waste stream. This program will include at least the following elements:

- DEQ will continue to pay for collection and disposal of mercury from CEGs at state-sponsored collection events as well as locally sponsored collection events and facilities. At locally sponsored collections, local sponsors will continue to maintain responsibility for full costs of mercury collection from households, in addition to labor and supply costs for mercury collection from CEGs.
- DEQ will expand mercury education and outreach efforts. In coordination with local governments and haulers, DEQ will continue to publicize and promote mercury collection opportunities through fact sheets, mailings, and other announcements.
- DEQ will continue its digital thermometer exchange program.
- DEQ will continue collection of mercury from dentists, building on the pilot program activities conducted at the annual convention of the Oregon Dental Association.
- DEQ will no longer collect lamps free of charge from CEGs, including fluorescent tubes, high-intensity discharge lamps (HIDs), and compact fluorescent lamps (CFLs).
- DEQ will provide at-home collection of elemental mercury, as warranted in special circumstances, which the agency has determined is a cost-effective strategy for mercury reduction.



3.2.7 High-Hazard Material Collection

The Priority Assessment will identify areas of the state where risks associated with inadequate HHW collection are highest. Based on the assessment, DEQ will provide additional funding for collection of high-hazard materials, such as mercury, and to communities where the risks to human health and the environment associated with improper handling or disposal of hazardous materials are found to be the greatest. To ensure the focus on high-hazard materials and situations, DEQ will retain discretion over the disbursement of these funds, which may involve grants, intergovernmental agreements, or other mechanisms.

DEQ will provide funding to local governments for collection of HHW materials in high-risk areas.

Funding for high-risk material collection will, in some cases, supplement existing collection programs. Communities that already have HHW collection infrastructure will be eligible for additional support to increase recovery of targeted high-hazard materials.

3.3 Waste Prevention and Education

Purpose and Overview

Many stakeholders in the planning process expressed a preference for addressing the HHW problem upstream, including educating residents about how to create less HHW in the first place. The rationale for this focus is that there will never be enough resources to collect and manage all the HHW that is generated. Accordingly, if DEQ and others invest in preventing the use and generation of hazardous household products, through education and other initiatives, in the long run the need for HHW collection will be reduced. In addition, reduced production and use will likely yield significantly greater environmental and health benefits than HHW collection alone.



Consequently under the 2005-2011 HHW Plan, DEQ intends to devote significantly more resources than before to educating residents about HHW, including using safer substitutes, purchasing only what is needed, as well as proper handling and disposal. The research conducted as part of the baseline study (3.1.2) will provide an understanding of current attitudes, awareness, and behavior among Oregon residents. DEQ will then design and implement an education and behavior change program using that information and based on the principles of community-based social marketing (CBSM). Through the evaluation activity in section 3.1.3 and additional evaluation of education initiatives, DEQ will carefully track changes in awareness and behavior to ensure accountability and desired outcomes from resources devoted to this education initiative.

Under the 2005-2011 HHW Plan, DEQ intends to devote more resources to educating residents about HHW, including using safer substitutes, purchasing only what is needed, proper handling, and disposal.

Intended Outcomes

- Design and implementation of a statewide educational campaign to reduce generation of HHW;
- Grants to local jurisdictions to fund educational efforts aimed at encouraging residents to purchase and use less hazardous materials and properly manage existing HHW; and
- Expand, promote, and continue to fund the statewide HHW hotline.

3.3.1 Comprehensive Behavior Change Program

DEQ will develop and implement a comprehensive behavior change program to reduce the use of hazardous products and generation of hazardous wastes. The exact scope and components of this program will be developed in the first biennium of the 2005-2011 HHW Plan, following completion of the Priority Assessment and the baseline study. In general, however, the program will:

To help reduce the use of hazardous products and generation of hazardous wastes, DEQ will develop and implement a comprehensive behavioral change program.

- Apply the principles of community-based social marketing;
- Have a statewide platform, including materials and media;
- Be implemented in some areas of the state directly by DEQ;
- Provide support for implementation of the campaign through targeted grants and technical assistance to local governments for education and outreach initiatives;
- Target education and outreach to high-hazard materials and high-risk populations and geographic areas; and
- Be pilot-tested and evaluated for efficacy prior to statewide implementation;
- Solicit support from manufacturers and retailers.

Waste prevention education benefits all partners, including those with collection programs and those without programs. The program may focus on a specific waste stream or product type, such as pool chemicals or lawn pesticides; specific activities, such as ritual use of mercury; or groups of people, such as facility customers or new homebuyers. After completion of the Priority Assessment, DEQ will generate a short list of options and conduct research on those options to guide the selection of a specific educational campaign.



Waste prevention poses several challenges, including a lack of successful programs elsewhere that can be replicated and difficulties involved in evaluating results. While many stakeholders expressed a preference for DEQ leadership in this area, and there are compelling environmental reasons to do so, DEQ cannot guarantee that added effort in this area will yield significant results. Just as early efforts at HHW collection were less efficient than today's programs, an extended period of time may be required to develop a truly successful HHW waste prevention program. Program evaluation is essential to maximize effectiveness and environmental benefits. After several iterations of implementation, evaluation, and adaptation, if this campaign effort seems unlikely to yield meaningful results, DEQ will consider reducing the budget for this campaign and redirecting funds to other HHW activities.

DEQ will continue to produce and distribute copies of existing printed materials, such as *The Hazardless Home Handbook* and *Natural Gardening*. DEQ will distribute the documents through local governments, poison control, fire safety, public health professionals, and other venues as appropriate.

3.3.2 Education Grants

DEQ will continue its grant program for waste prevention education.

DEQ will continue its grant program for education about waste prevention. The goal of waste prevention education is to encourage residents to purchase and use products that contain less hazardous materials as well as to minimize waste from those products that are purchased. Consistent with the plan goals of reducing HHW generation and risks, DEQ will give priority to grants that focus waste prevention

education on materials or situations that pose the greatest risks to human and the environment. Application requirements for education grants include:

- A scope of work that includes a description of the educational messages to be delivered and the method for delivering the information;
- A project management description, including description of the capabilities of the applicant organization;
- A description of local program partners, if any, and their roles;
- A budget, including in-kind services, and a schedule;
- A description of the proposed approach to evaluating the results of the educational effort.

3.3.3 Expand State Hotline

DEQ will continue to contract with Metro to operate a statewide HHW information hotline. The hotline service answers questions from the public and provides information regarding the next or closest HHW collection opportunity. Because the number of permanent facilities has grown since the 1999 HHW Plan, the hotline will likely take on added importance in informing the public about regional collection opportunities. DEQ will work to expand the hotline as a resource about alternative products and new disposal opportunities as well as to promote the hotline to residents to raise awareness and increase its use. DEQ will also ensure that the hotline resources are readily available on the internet for residents who prefer to obtain their information online.

The HHW hotline will be expanded and promoted as a central resource for waste prevention and proper handling and disposal of HHW.

3.4 Market Change

Purpose and Overview

Ultimately, the solution to Oregon's HHW problem is to minimize the use of hazardous materials in products destined for household use. This type of change in the consumer marketplace is likely to take a long time and will involve all parties in the supply chain (from manufacturers to retailers to consumers), the development of new technologies, and significant changes in attitudes, regulations, and knowledge about the health impacts of current products and material handling practices.

In the planning process, some stakeholders advocated that DEQ should have market transformation and product stewardship be its priorities for allocating resources under the 2005-2011 HHW Plan. The HHW Program intends to continue its efforts in this arena, but it will limit the resources invested and rely to a significant extent on partnerships with other DEQ programs and with other local governments. DEQ recognizes the challenges associated with achieving long-term change and the limitations on Oregon's ability to influence global supply chains and markets.

Market change activities planned for the next several years are highlighted below. DEQ's focus will be on targeted initiatives and support for product stewardship efforts that deal with high-hazard situations and where tangible results are likely to be achieved under the 2005-2011 HHW Plan. This HHW Plan is not intended to address all of the DEQ Solid Waste Program's product stewardship priorities. Products that contain difficult-to-manage materials, such as electronics and agricultural pesticides, are a priority for DEQ but are not addressed in this plan.

Market change activities will include efforts to:

- *Engage retailers and manufacturers in thermostat collection*
- *Participate in national dialogues to encourage product stewardship*
- *Monitor other policy initiatives*

Intended Outcomes

- Replacement of residential mercury thermostats with safer alternatives through engagement of retailers and manufacturers in the exchange process;
- Participation in national product stewardship dialogues focused on two or more new high-risk materials; and
- Tracking and consideration of relevant HHW policy initiatives in other jurisdictions.

3.4.1 Mercury Thermostats

DEQ will continue product stewardship efforts related to collection of mercury thermostats. The goal is to have retailers and manufacturers fully engaged in efforts to remove old thermostats from houses, replacing them with *Energy Star*-compliant digital alternatives.

3.4.2 Other Product Stewardship Initiatives

Advancing from the concept stage only a few years ago, product stewardship is now embedded in the policies and approaches of many governments across the nation as well as many private-sector firms. DEQ will continue to be active in local, regional, and national dialogues to apply product stewardship to addressing HHW needs and problems. However, efforts will be focused on only high-risk materials, such as mercury.

DEQ expects to target a minimum of two new products over the next six years. The results of the Priority Assessment will be used to help determine which high-risk products to address.

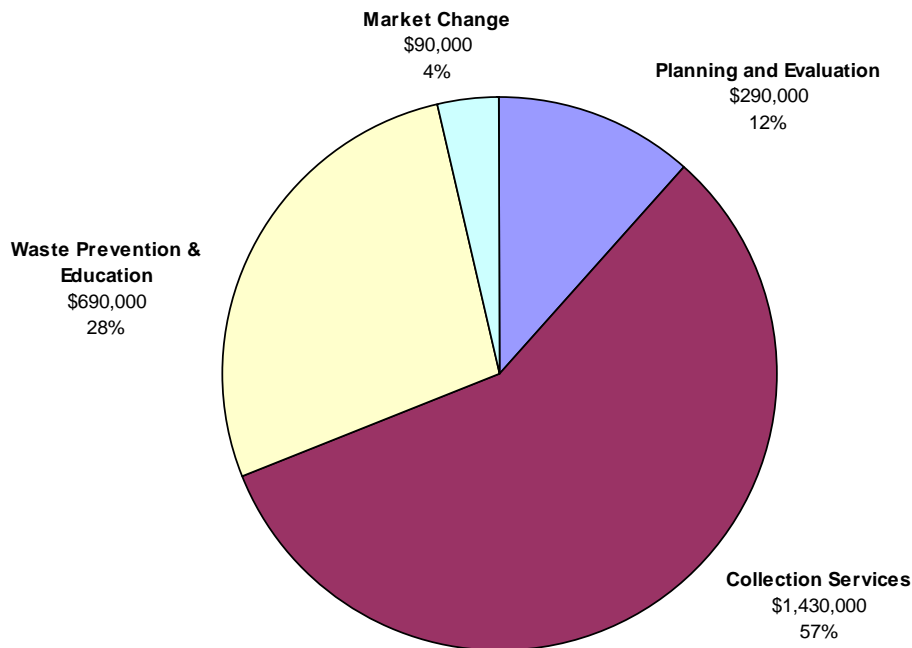
3.4.3 Policy Initiatives

DEQ will monitor efforts locally and in other states to enact policy change (e.g., new laws, regulations, and incentives) to reduce the use and risks associated with hazardous products and HHW. At this point DEQ does not plan to initiate any new policies or legislation. However, the agency may support others in their efforts and may consider initiating such efforts if such actions appear likely to be successful in reducing risks from toxic substances to human health and the environment.

4 HHW Plan Budget for 2005-2011

The budget for the 2005-2011 HHW Plan, presented in the following tables, is approximately \$900,000 in the first biennium and \$800,000 in each of the following two biennia, for a total expenditure of about \$2.5 million. Figure 2 graphically shows planned expenditures by type of program activity.

Figure 2. HHW Program Budget by Activity Category for 2005-2011



This budget incorporates “adaptive management” principles to guide DEQ in allocating resources among competing demands. The level of effort for some activities outlined in the plan depends on the response from partners, such as local governments or haulers, and from households. Accordingly, program expenses may vary in response, for example, to grant requests or turnout at collection events. The “Partner or Customer-driven” field of Table 4 indicates whether partner or customer response will affect the level of resources needed for a particular activity.

Because not all future costs or demands for DEQ services are known, some flexibility is allowed in activity expenditures to make the proposed budget a robust and useful tool. To maintain control over expenditures, most line items have a cap, as indicated in the “Limit” field. If program expenditures do not reach their caps, unspent funds may be reallocated at DEQ’s discretion. It is anticipated that any funds unused in a particular category will generally shift to funding facility grants, followed by collection events. Some particular categories may transfer any unused resources into other product stewardship initiatives, as indicated in the right-hand column of the table. If the funding available for collection events falls below \$75,000 in any given year, DEQ will review the budget and consider reallocation of resources if needed.

If grant requests are high, for example, DEQ could fund more facilities and planning grants over the next six years, significantly reducing the funds available each year for collection events. Conversely, if grant requests are lower than expected, DEQ might fund a smaller number of planning grants and facilities, which would leave more funds available for collection events. The plan budget is designed to adapt to these varying levels of grant requests from local governments and to allocate resources accordingly among agency priorities.

Table 3. Potential Expense Scenario for 2005-2011 HHW Plan

*Note: Actual expenses will vary according to grant requests and other customer-driven activities
(See Table 4, Budget Plan for 2005-2011 HHW Plan)*

| | Biennium 1 (2005-07) | Biennium 2 (2007-09) | Biennium 3 (2009-11) | Total (2005-2011) |
|--|-------------------------|-------------------------|-------------------------|----------------------|
| Planning and Evaluation | | | | |
| 3.1.1 Priority Assessment | \$60,000 | | | \$60,000 |
| 3.1.2 Baseline Study | \$50,000 | | | \$50,000 |
| 3.1.3 Ongoing Evaluation | | | \$30,000 | \$30,000 |
| 3.1.4a Planning Grants (Comprehensive) – Communities without plans | \$30,000 | \$30,000 | \$30,000 | \$90,000 |
| 3.1.4b Planning Grants – Special plans for communities that have already planned (supplemental plans) | | | | |
| 3.1.5 Technical Assistance and Training | \$10,000 | \$25,000 | \$25,000 | \$60,000 |
| Collection Services | | | | |
| 3.2.1 Facility Grants | \$200,000 | \$145,000 | \$135,000 | \$480,000 |
| 3.2.2 DEQ-funded Collection Events | \$185,000 | \$210,000 | \$190,000 | \$585,000 |
| 3.2.3a Out-of-County Reimbursement – Existing Metro contract | \$65,000 | | | \$65,000 |
| 3.2.3b Out-of-County Reimbursement – New program | \$15,000 | \$25,000 | \$25,000 | \$65,000 |
| 3.2.3c Out-of-County Reimbursement – New program, priority wastes | \$5,000 | \$5,000 | \$5,000 | \$15,000 |
| 3.2.4 Purchaser Program | \$0 | \$0 | \$0 | \$0 |
| 3.2.5 Mini-facility Design | \$25,000 | | | \$25,000 |
| 3.2.6 Mercury Collection | \$25,000 | \$25,000 | \$20,000 | \$70,000 |
| 3.2.7 High-risk Material Collection | \$25,000 | \$50,000 | \$50,000 | \$125,000 |
| Waste Prevention and Education | | | | |
| 3.3.1a Comprehensive Behavior Change Program – DEQ-led or direct- funded activities (priority over 3.3.1b) | \$150,000 | \$225,000 | \$225,000 | \$600,000 |
| 3.3.1b Comprehensive Behavior Change Program – Local government grant requests | | | | |
| 3.3.2 Education Grants (other than 3.3.1b) | \$15,000 | \$25,000 | \$25,000 | \$65,000 |
| 3.3.3 Expand State Hotline | \$5,000 | \$10,000 | \$10,000 | \$25,000 |
| Market Change | | | | |
| 3.4.1 Mercury Thermostat Project | \$20,000 | | | \$20,000 |
| 3.4.2 Other Product Stewardship Initiatives | \$15,000 | \$25,000 | \$30,000 | \$70,000 |
| 3.4.3 Policy Initiatives | \$0 | \$0 | \$0 | \$0 |
| Total Costs | \$900,000 | \$800,000 | \$800,000 | \$2,500,000 |

Table 4. Budget Plan for 2005-2011 HHW Plan

| | Partner or Customer Driven? | Limit? | Reallocation for Unspent Funds | Notes and Assumptions |
|---|-----------------------------|--|--------------------------------|---|
| Planning , Evaluation, and Monitoring | | | | |
| 3.1.1 Priority Assessment | No | \$60,000 in biennium 1 | Facility Grants | Assessment may include literature review, GIS mapping, and evaluating the inclusion of latex paint at collection events. |
| 3.1.2 Baseline Study | No | \$50,000 in biennium 1 | Facility Grants | Baseline study in first biennium. Includes budget for contracting services as well as developing the methodology for ongoing evaluation. |
| 3.1.3 Ongoing Evaluation | No | \$30,000 biennium 3 (Budget for special evaluation of comprehensive behavior change program included separately in 3.3.1) | Facility Grants | Develop evaluation plan and methodology in first biennium as part of baseline study; conduct regular assessments in subsequent biennia. Comprehensive evaluation in third biennium to assess HHW program and guide next six-year plan. Includes collecting statewide data on HHW collection for all programs. |
| 3.1.4a Planning Grants – Communities without plans | Yes | No | Facility Grants | \$15,000 for counties that have not prepared plans (increase of \$5,000 per plan); \$10,000 for counties preparing special plans. |
| 3.1.4b Planning Grants – Special plans for communities that have already planned (supplemental plans) | Yes | \$30,000 per biennium | Facility Grants | |
| 3.1.5 Technical Assistance and Training | Yes | \$10,000 in biennium 1 \$25,000 per biennium thereafter | Facility Grants | Includes support for conference attendance, information exchange, and other activities. This is a \$1,500 per year increase over 1999-2005 funding. |

| | Partner or Customer Driven? | Limit? | Reallocation for Unspent Funds | Notes and Assumptions |
|---|-----------------------------|--|--|---|
| Collection Services | | | | |
| 3.2.1 Facility Grants | Yes | Limited by funds available ⁷ | Collection Events | Average facility grant under 1999 Plan was \$80,000. Grants for Tier I facilities are up to \$40,000-\$100,000. Grants for Tier II facilities are up to \$30,000. |
| 3.2.2 DEQ-funded Collection Events | No | | No excess – all remaining funds spent here | Costs include the Fall 2005 event as well as 20% of the costs of the Spring 2005 events that will come out of the 2005 HHW Plan budget. |
| 3.2.3a Out-of-County Reimbursement – Existing Metro contract | No | \$60,000 in biennium 1 | No excess – fixed sum contract | |
| 3.2.3b Out-of-County Reimbursement – New program | Yes | \$20,000 in biennium 1 \$25,000 per biennium thereafter | Collection Events | |
| 3.2.3c Out-of-County Reimbursement – New program, priority wastes | Yes | None | N/A | |
| 3.2.4 Purchaser Program | no | No funding needed | N/A | Most of the costs related to this have been from DEQ-funded collection events; establishing the purchaser program requires staff time but few direct costs. Existing contract can be continued; renegotiation assumed in the end of the first biennium. |
| 3.2.5 Mini-facility Design | No | \$25,000 in biennium 1 | Facility Grants | |
| 3.2.6 Mercury Collection | Yes | None | Collection Events | DEQ spent approximately \$41,000 on mercury-related events during the 1999 Plan period. |
| 3.2.7 High-risk Material Collection | Yes | \$25,000 in biennium 1 \$50,000 per biennium thereafter | Other Product Stewardship Initiatives | |

⁷ Spending on Facility Grants (3.2.1) and Collection Events (3.2.2) equals the overall HHW budget (typically \$800,000 per biennium), minus actual and projected spending in all other categories. Between these two activities, Facility Grants are applicant-driven and receive first priority; all remaining funds go to Collection Events.

| | Partner or Customer Driven? | Limit? | Reallocation for Unspent Funds | Notes and Assumptions |
|---|-----------------------------|---|--|---|
| Waste Prevention and Education | | | | |
| 3.3.1a Comprehensive Behavior Change Program – DEQ-led or direct-funded activities (priority over 3.3.1b) | No | For behavior change program (3.3.1), \$150,000 in biennium 1 and \$225,000 per biennium thereafter | DEQ-led activities have priority over grant requests from local governments. Up to \$25,000 unspent in 3.3.1 goes to 3.3.2; any remainder goes to Facility Grants. | \$112,500 per year, beginning in FY 2006-07, covers program development, grants, marketing/advertising; additional funds in 2006-07 for design and pilot testing. Budget includes money for contracting services. |
| 3.3.1b Comprehensive Behavior Change Program – Local government grant requests | Yes | | | |
| 3.3.2 Education Grants (other than 3.3.1b) | Yes | \$15,000, supplemented by up to \$25,000 in unspent funds from 3.3.1 each biennium | Facility Grants | |
| 3.3.3 Expand State Hotline | No | \$5,000 in biennium 1 \$10,000 estimated per biennium thereafter (actual costs depend on negotiation with Metro) | Facility Grants | DEQ spent approximately \$2,400 per year on the HHW hotline between 1999-2005. |
| Market Change | | | | |
| 3.4.1 Mercury Thermostat Project | No | \$20,000 in biennium 1 | Other Product Stewardship Initiatives | |
| 3.4.2 Other Product Stewardship Initiatives | No | \$15,000 in biennium 1 \$25,000 in biennium 2 \$30,000 in biennium 3 Plus remaining funds from High-risk Material Collection (3.2.7) | Facility Grants | |
| 3.4.3 Policy Initiatives | No | No funding needed | N/A | |

5 Implementation Schedule

This section provides a proposed schedule of major activities and milestones for the 2005-2011 HHW Plan. Implementing the major initiatives of the new HHW Plan will require DEQ to undertake significant efforts, particularly in the first biennium of the plan (2005-2007). Many activities will need to occur in close succession, and the implementation schedule outlined in Table 5 provides a proposed schedule for sequencing these efforts. Additionally, many efforts – such as technical assistance, grant making, and monitoring of other policy initiatives – are ongoing throughout the planning period, also noted on the proposed schedule. DEQ will refine this timeline as needed.

Table 5. Proposed Implementation Schedule for 2005-2011 HHW Plan

| | Biennium 1 July 2005-June 2007 | | | Biennium 2 July 2007-June 2009 | | Biennium 3 July 2009-June 2011) | |
|---|--|-----------------------------|--|---|-----------------------------------|------------------------------------|-----------------------------------|
| Planning and Evaluation | Year 1, Q3 Jan-Mar 2006 | Year 1, Q4 Apr-June 2006 | Year 2 July 2006- June 2007 | Year 3 July 2007- June 2008 | Year 4 July 2008- June 2009 | Year 5 July 2009- June 2010 | Year 6 July 2010- June 2011 |
| 3.1.1 Priority Assessment | Initiate study | Complete study | Implement results | | | | |
| 3.1.2 Baseline Study | | Initiate study | Complete study | | | | |
| 3.1.3 Ongoing Evaluation | | | Annual report | Annual report | Annual report | Overall evaluation | Annual report |
| 3.1.4 Planning Grants | Revise and release grant application | | Select grant awardees | Ongoing funding of grants and review of new applications | | | |
| 3.1.5 Technical Assistance and Training | Ongoing technical assistance and training | | | | | | |
| Collection Services | | | | | | | |
| 3.2.1 Facility Grants | Revise and release grant application | | Select grant awardees | Ongoing funding of grants and review of new applications | | | |
| 3.2.2 DEQ Collection Events | Plan for 2006 events | Form event queue | Hold 2006 events | Hold events as funding allows according to queue sequence and priority assessment results | | | |
| 3.2.3 Out-of-County Reimbursement | Finish existing contract; establish new program | | Implement new reimbursement program (ongoing) | | | | |
| 3.2.4 Purchaser Program | | | Negotiate new contract | Implement new contract (ongoing) | | | |
| 3.2.5 Mini-facility Design | | Initiate design | Finalize design | | | | |
| 3.2.6 Mercury Collection | Continue ongoing mercury collection | | Expand and promote mercury collection | | | | |
| 3.2.7 High-risk Material Collection | | | Design and implement special programs to collect high-risk materials, as identified in the Priority Assessment | | | | |
| Waste Prevention and Education | | | | | | | |
| 3.3.1 Behavior Change Program | | Identify program goals | Design/pilot education program | Statewide implementation of educational program | | | |
| 3.3.2 Education Grants | Revise and release grant application | | Select grant awardees | Ongoing funding of grants and review of new applications | | | |
| 3.3.3 Expand State Hotline | Continue hotline and identify areas for change | | Expand services | Continue expanded hotline services | | | |
| Market Change | | | | | | | |
| 3.4.1 Mercury Thermostats | Complete current thermostat replacement effort | | | | | | |
| 3.4.2 Other Product Stewardship Initiatives | Continue current stewardship efforts | | Identify new initiatives | Implement first new initiative | | Implement second new initiative | |
| 3.4.3 Policy Initiatives | Ongoing monitoring of other policy initiatives as needed | | | | | | |

Table 6 summarizes the different grant programs available to local governments under the 2005-2011 HHW Plan. The table presents eligibility requirements, grant amounts, and eligible expenses.

Table 6. Summary of HHW Grants

| Grant and Program Type | Eligibility Requirements and Limitations | Maximum Amount of Individual Grant | Expenses Eligible for Reimbursement |
|---|---|--|---|
| Planning, Monitoring, and Evaluation | | | |
| 3.1.4a HHW Planning Grants | All counties and cities that have not yet prepared an HHW plan | Maximum \$15,000 | Staff, contractors, research |
| 3.1.4b HHW Specialized Planning Grants | All counties and cities that have an HHW plan and want to provide specialized local services to address high-risk situations or to update and begin implementation of existing plans | Maximum \$10,000 | |
| Collection Services | | | |
| 3.2.1a Tier I Facility Grants | All counties and cities are eligible. Local governments must submit a facility grant application and an existing HHW plan that follow DEQ's guidelines, available on its website. See Table 2 for additional limitations and requirements. | Eligible costs up to \$40,000–\$100,000, depending on population | Facility design, construction, materials, equipment, and up to 50% of first-year waste management costs. Tier II grants can cover mobile units or vehicles. |
| 3.2.1b Tier II Facility Grants | | Eligible costs up to \$30,000 | |
| 3.2.7 High-risk Material Collection Grants | To be determined based on the program design | Maximum \$25,000 | Collection and disposal of high-hazard materials |
| Waste Prevention and Education | | | |
| 3.3.1 Behavior Change Program Grants | To be determined based on the program design | To be determined based on the program design | Staff, contractor, education materials, media expenses |
| 3.3.2 Waste Prevention Education Grants | All counties and cities are eligible. Local government applications must include: <ul style="list-style-type: none"> ▪ a description of educational messages, local program partners, and project management ▪ a method for delivering messages ▪ a budget, schedule, and approach to evaluating results of the educational effort | \$40,000 maximum | |

Appendix A

Review of 1999 HHW Plan for 2005 Update Process

Review of 1999 HHW Plan for Current Update Process

Oregon DEQ Household Hazardous Waste Plan Update

March 2005

Overview & Key Findings

Since the adoption of its Household Hazardous Waste Plan in 1999, DEQ has funded the development of 18 local HHW plans,¹ five local collection facilities, and 42 HHW collection events, among other activities. Agency staff members as well as external stakeholders consider many elements of the Plan to have been successful, and the agency has shown particularly strong results on its key priorities of grants to local governments and continued collection events. Since 1999, the agency has spent nearly \$2.5 million on implementing its statewide Household Hazardous Waste program. With DEQ's support, counties have developed local HHW management plans, and new permanent facilities are opening in several areas.

With the imminent opening of these new local HHW collection facilities resulting from the Plan, parts of the 1999 Plan are nearing their logical conclusion. Other Plan elements, such as education and implementation of local plans in certain counties, may need additional emphasis. Oregon's HHW management needs are evolving, and the state is ready for a new stage in HHW planning – hence the current update of the HHW Plan.

Key outcomes of Oregon's 1999 HHW Plan include the following results, which are discussed further in the subsequent sections of this review:

- **Grants.** From 1999 through 2004, DEQ provided nearly \$650,000 in grants to local governments, mainly for facility development but also for HHW planning, education, and other efforts. These grants have funded 10 completed local HHW plans, five permanent local collection facilities, and various education programs and other efforts.
- **HHW facilities.** DEQ has awarded more than \$400,000 to date to five county governments for creating their own local HHW collection programs through development of permanent facilities. These new facilities will serve counties with a combined total of more than half a million residents, resulting in nearly two-thirds of the state's population served by permanent facilities by 2006.
- **Collection events.** From 1999 to 2004, DEQ sponsored 42 HHW events around the state, serving areas with populations totaling more than half a million people. These events drew more than 10,000 participants and collected more than 1 million pounds of HHW, at a cost of \$1.3 million.
- **External stakeholders** surveyed generally agreed that key elements of the current HHW Plan have worked well, particularly for planning and facilities. They also recommended several areas for improvement, including waste prevention, public education, assistance in securing funding, and information sharing. Most stakeholders surveyed reported that the state was contributing about the right amount to local HHW management efforts in their counties, and one-third felt that the state should do more for their communities through education, legislation, waste collection, and funding.

¹ Please verify this number. We tallied between 14 and 19, depending on which source we referenced. This count includes these counties: Baker, Benton, Clatsop, Columbia, Coos, Deschutes, Douglas, Hood River, Klamath, Lincoln, Linn, Marion, Polk, Sherman, Umatilla, Union, Wallowa, and Wasco (does not count Umatilla tribe, Harney, Lane, Yamhill, or Metro area counties).

- The four-year **evaluation** of the 1999 Plan did not occur as scheduled. Annual reports covered DEQ's collection event activities, and informal assessment of other Plan elements also took place.
- DEQ followed through on conducting many of the **specific activities** called for in the 1999 Plan. These accomplishments also appear to support progress towards the Plan's **broader goals** (e.g., reduce the use of hazardous household products), though more data are needed to quantify the progress towards these overarching goals.

The remainder of this review presents additional information on the outcomes of the 1999 HHW Plan, including feedback from external stakeholders, input from DEQ staff members, and data from agency reports. A separate table provides more detailed information on implementation of the activities recommended in the 1999 Plan, and a stand-alone summary includes the complete results of the recent stakeholder survey.

Key Questions

This review of the Department of Environmental Quality's *Household Hazardous Waste Management Plan for Oregon*, adopted in May 1999, seeks to address the following questions:

- Were the activities recommended in the 1999 HHW Plan implemented successfully? What activities under the Plan did DEQ do well? What activities needed improvement or did not occur?
- Did the Plan meet its overall goals and objectives?

The second question will lead into a discussion of how the state's needs and goals may have changed since 1999 and how best to address those issues in the next stage of the planning process.

Background & Methods

This review of DEQ's 1999 HHW Plan is designed to provide a brief overview of the agency's activities in relation to the recommendations called for in the 1999 Plan. It is not intended to provide the full independent evaluation that the Plan itself recommended. This summary primarily reviews whether DEQ conducted the activities recommended in the Plan. As the planning process moves forward, it will consider the extent to which those activities met Oregon's key needs for HHW management, identify any unmet needs, and formulate options to address those needs in the new HHW Plan.

This summary relies primarily on information from the following sources:

- Activities outlined in the 1999 HHW Plan, *Household Hazardous Waste Management Plan for Oregon*;
- DEQ's *Household Hazardous Waste, Conditionally Exempt Generator, and Agricultural Pesticide Collection Reports*, for 1991 through 2003, as well as other agency data;
- Input from DEQ's HHW staff team, including its technical assistants; and
- Feedback from external stakeholders obtained via a survey of local governments, waste industry members, and other interested parties conducted in February 2005.

The review is organized around these primary activity areas recommended in the 1999 Plan:

- **HHW collection**, including state-sponsored collection events, facility grants, and other collection grants;
- **Public education**, including education grants and publications;
- **Supporting services and other activities**, including planning grants, technical assistance, and producer responsibility activities;
- **Program evaluation**, including indicators of program success, data review, and local government response; and
- **Overall goals**, the overarching goals these program activities are intended to help meet.

The accompanying table in **Appendix A** provides additional details on DEQ's activities recommended in the 1999 HHW Plan and the outcomes of those efforts to date.

HHW Collection

With the adoption of its 1999 HHW Plan, the Department of Environmental Quality shifted its focus on providing state-funded collection events in favor of helping local governments build their own capacity to collect household hazardous waste. Facilities grants are currently leading towards the creation of new permanent facilities in five counties. Other local governments have not yet elected to pursue these opportunities, though DEQ is working with those counties to advance their HHW management efforts. Continued linkages with programs for businesses that generate small quantities of hazardous wastes (conditionally exempt generators, or CEGs) and agricultural chemical users may be helpful as the focus of HHW collection shifts from state-sponsored one-day events to permanent local facilities.

Facility grants have been successful to date in counties that have requested them.

DEQ has awarded more than \$400,000 to date to five county governments for creating their own local HHW collection programs, including development of permanent facilities. Marion County is scheduled to open its HHW site this spring, and new facilities in Columbia, Deschutes, Hood River, and Wasco counties are slated to open later this year and in 2006. These new facilities will serve counties with a combined population of more than half a million residents. Marion County will also provide events serving Polk and Yamhill counties through agreements with those counties and using a DEQ-funded truck. Coupled with existing sites (including those in Lane County and the Metro region), these new facilities will result in permanent HHW facilities serving about two-thirds of all Oregon residents, by county. All of the grants awarded to date have been for "full depots" that accept all types of HHW. No counties have built "high-hazard depots," which focus on fewer types of particularly hazardous materials, so comparative data on the efficacy of these facility types is not available.²

It is difficult to assess the final results of this program before the new facilities open and data are available on their usage, amount of HHW collected, and operating costs. Based on feedback from both agency staff and external stakeholders, however, DEQ's facilities grant program appears to be a major success for those areas that have chosen to pursue this funding opportunity and HHW management option. Statewide, however, DEQ staff and external

² The facilities in Marion and Wasco counties will accept all HHW materials, though they intend to focus on high-hazard items, while seeking to divert materials such as antifreeze, latex paint, and motor oil to alternate collection sites. When these facilities are in operation, information can be gathered on the efficacy of this approach.

stakeholders noted that more options are still needed for proper disposal of HHW. Since DEQ has awarded funding to all facilities grant requests received to date, further progress in this area will likely depend on more communities reaching this stage in their HHW planning and management process.

State-sponsored collection events remain a popular activity, even as agency priorities have reduced their availability.

In 1999 to 2004, DEQ sponsored 42 HHW collection events around the state. These events served residents of counties with populations totaling more than half a million people. Together, these events collected more than 1 million pounds of HHW from more than 10,000 participants. DEQ expenditures totaled about \$1.3 million over six years, averaging just under \$30,000 per collection event. Participants typically brought about 100 pounds of waste, and DEQ paid on average \$0.96 per pound for the waste collection, handling, and disposal. In addition to these state-funded collection events, some communities provided their own collection events, one to four times a year, either through DEQ's state HHW services contract or on their own.

In comparison with the 128 events held from 1991 to 1998, DEQ has collected more waste per person since 1999 and had higher turnout at events. Though per-event costs have increased about 20%, cost per participant has decreased 8% and cost per pound collected has dropped 24%.³ This significant decrease in per-pound costs of HHW management is largely due to *[information forthcoming from DEQ]*.

DEQ's collection events represent a significant part of an HHW program that is well regarded and popular. Given the cost of the state-funded events and the 1999 Plan's shift in priorities towards grants for local government planning and facilities, DEQ can serve only a limited number of communities each year – an average of about seven per year since 1999, less than half the number served annually in 1991 to 1998. Since 1999, just under 40% of the communities requesting events have been successful applicants. The selection process incorporates such factors as event coordination experience, location, special waste, and education and promotion. Some stakeholders expressed concerns about the current selection process, and agency staff have noted that changes may be needed to ensure an equitable selection process as well as events that serve the communities with the greatest needs.

Facility reimbursement for out-of-area wastes applies to Metro's HHW sites, but expansion may be needed.

In the years since Plan adoption in 1999, DEQ has had a reimbursement agreement for out-of-area wastes with Metro in the Portland region, which creates opportunities for extending HHW collection to a broader number of residents. DEQ spent more than \$275,000 on reimbursements to Metro since 1999, and a pilot reimbursement project was also conducted at the Lane County facility. The Metro contract is currently up for renegotiation, and DEQ staff have expressed concerns about rising costs. However, a recent analysis shows that about 60% of out-of-area waste comes from within the Metro counties (Clackamas, Multnomah, and Washington) outside of Metro's service area but within five miles of the facilities; Metro may assume more of these disposal costs under the new agreement. With five new facilities opening in 2004-2006, facility reimbursement is likely to become a more widespread issue and may increase costs to DEQ, depending on the origins of these wastes and how DEQ chooses to fund such reimbursements. The new facilities are projected to collect more than 350,000 pounds of HHW materials each year.

³ These figures may change slightly pending any revisions to the event data from DEQ.

No communities have received available grant funds to implement small-scale programs to collect special wastes.

The 1999 HHW Plan included a provision designed to offer small grants to communities to improve collection for certain wastes, such as batteries, motor oil, fluorescent tubes, and compact fluorescent light bulbs. To date, however, only a few communities have requested this type of grant, and the proposals received were inadequate and not funded. More information on why this program has not been utilized is needed to determine whether changes are needed in the program's intent, implementation, or publicity.

Public Education

In addition to HHW collection, the 1999 Plan also recommended continuation or expansion of public education efforts designed to promote reduced use and proper disposal of HHW among Oregon residents. In comparison with the Plan's primary focus on grants and collection, public education received less emphasis and funding. Ongoing education efforts have continued, including the production and distribution of publications. DEQ has also awarded four education grants since 1999.

DEQ has awarded four education grants since 1999.

The agency awarded four grants for educational programs from 1999 to 2004, ranging from \$5,000 to \$20,000. The grants went to Clatsop, Douglas (two grants), and Deschutes counties. DEQ has never rejected an education grant due funding constraints, but agency staff report that inadequate proposals have hindered their ability to expand the impact of this program. Increased assistance to local governments may help make this grant program more attractive to counties, increase the quality of proposals, and enhance the program's efficacy.

DEQ continues to produce several educational booklets and provide materials in conjunction with HHW collection events.

The agency produces several publications jointly with Metro. The existing booklets and brochures, such as "The Hazardless Home Handbook" and "Natural Gardening," are distributed through local governments and organizations such as fire safety, poison control, and public health agencies.⁴ DEQ prepared a new traveling display on alternatives to HHW for use at local events. DEQ also provides artwork and a recently updated package of materials like flyers, cards, posters, and radio script to local governments and other groups in conjunction with state-sponsored collection events. Public Service Announcements (PSAs) on proper use, storage, and disposal of HHW have not been developed.

DEQ contracts with Metro to provide a statewide HHW hotline.

The agency paid Metro a total of \$14,400 from 1999 to 2005 to accept calls from around the state on its HHW hotline. The hotline can provide information about local HHW collection opportunities as well as proper use and storage. Metro tracks the phone calls received and reports results by county.⁵ DEQ staff report that the hotline appears underutilized.

⁴ Add any available data on the number of educational materials produced and distributed?

⁵ Obtain and add data regarding number and source of calls to hotline?

Supporting Services & Other Activities

Planning grants are another largely successful element of the 1999 Plan. More work may be needed, however, to encourage implementation in counties that have prepared plans. Other counties have not participated in the planning process. In addition to the planning grants, DEQ has made significant investments in providing technical assistance and participating in product stewardship dialogues at the state, regional, and national levels.

DEQ has funded 18 planning grants, resulting in 10 completed plans and five new facilities to date.

From 1999 to 2004, DEQ awarded 18 planning grants totaling \$160,000; the table below shows the HHW planning status of Oregon's 36 counties. Success stories from these local plans include the five counties developing local facilities scheduled for opening by 2006: Columbia, Deschutes, Hood River, Marion, and Wasco. Several counties have completed their plans but not yet followed through to the implementation phase, however, and additional state assistance may help these counties move forward. More than a dozen counties have not yet developed local plans.

| Planning Status | Counties | Population & % of Oregon |
|--------------------------|---|--------------------------|
| Have Not Planned | Clatsop, Crook, Curry, Gilliam, Grant, Harney, Jackson, Jefferson, Josephine, Lake, Malheur, Morrow, Tillamook, Wheeler | 460,061 13% |
| Planning | Baker, Benton, Coos, Klamath, Linn, Union, Wallowa | 361,262 10% |
| Planned, Not Implemented | Douglas, Lincoln, Umatilla | 219,007 6% |
| Implementing Plan | Columbia, Deschutes, Hood River, Marion, Polk, Sherman, Wasco, Yamhill | 674,232 19% |
| Existing Facilities | Lane, Metro (Clackamas, Multnomah, Washington) | 1,845,271 52% |

DEQ's additional supporting services include:

- **Facility rules or guidelines.** Guidelines for HHW collection facilities were updated and posted on DEQ's website.
- **Purchaser program.** Local governments can "piggyback" on DEQ's statewide contract with a private HHW management company (currently, MSE Environmental and Safety, Inc.) to schedule and pay for their own collection events and similar services. This program was largely designed to facilitate one-day collection events, so changes may be needed to assist communities that have developed their own permanent local collection facilities.
- **Technical assistance.** DEQ provides technical assistance to local governments through its regional staff of seven technical assistants (TAs), with support from the headquarters office. In addition to HHW services, the TA staff members also assist local governments on solid waste, recycling, and permitting issues. HHW technical assistance includes support for local

governments in planning efforts, preparation of applications for events, collection event coordination and outreach, and facility design.

- **Producer responsibility.** DEQ is a leader in product stewardship efforts for mercury thermostats. Agency staff members have also been active participants in the National Electronics Product Stewardship Initiative (NEPSI), the Product Stewardship Institute, and the Northwest Product Stewardship Council. The state also participated in a paint product stewardship initiative and passed legislation intended to reduce the use of mercury-containing thermometers and thermostats. These product stewardship initiatives represent ongoing efforts that have not yet reached their outcomes; more information to assess their efficacy should be available when the initiatives have progressed further.⁶

Program Evaluation

The 1999 HHW Plan called for a four-year evaluation of its results. Each year, DEQ produces an annual report on its HHW collection events, but no formal assessment of the Plan's results has occurred. The Plan recommended tracking indicators of program success, conducting an annual review of program data, tracking local government response to DEQ's programs, and establishing benchmarks for HHW management in Oregon. Additional efforts to document the results of HHW management in Oregon and to demonstrate the benefits of these programs to human health and the environment could support and promote the continued success of these efforts.

Overall Goals of HHW Plan

The 1999 HHW Plan was largely implementation-oriented, and it resulted in a number of specific program activities, as discussed in the preceding sections. In addition, the Plan included eight broader goals, listed and discussed in the following table.

Many of these goals are difficult to quantify and evaluate with existing data. The table includes some qualitative discussion of efforts intended to advance these goals. As we move into the new planning period, DEQ's HHW team can consider the impact of the previous Plan and revisit these goals to determine whether any have changed in the last six years. The new Plan can also seek to include ways to make these goals more easily quantified, facilitating measurement and progress towards their achievement.

⁶ Add more information on time/level of involvement, resources expended, results to date, etc.?

| HHW Program Goals <i>Established in 1999</i> | Status/Discussion |
|--|---|
| Reduce the use of hazardous household products | Education efforts regarding reducing HHW use have occurred, but with less emphasis and funding than programs focused on providing HHW collection and grants to local governments. |
| Reduce improper use and storage of HHW | The opening of five new facilities as a result of the 1999 Plan is expected to reduce improper storage of HHW in targeted communities. Two-thirds of Oregon's population will have access to permanent collection facilities by 2006. State-funded collection events continue to serve about seven other communities each year, and locally sponsored events provide additional HHW collection opportunities. Educational efforts designed to help this goal could be expanded. |
| Reduce the amount of HHW disposed of in landfills, sewer, and the environment | As noted above, the expansion in permanent local collection facilities should help reduce the improper disposal of HHW in many communities. DEQ's state-sponsored collection events also help advance this goal, and its educational efforts may contribute as well. |
| Encourage partnerships and collaborative relationships beyond DEQ | A major success of the 1999 Plan was its shift in emphasis from state activities to local government involvement. DEQ forged successful partnerships with many counties through its grant programs for planning and facility development. Product stewardship also represents an area where DEQ built new relationships with external stakeholders. |
| Provide services efficiently and cost-effectively | Shifting primary responsibility for HHW collection from the state to local governments brings certain advantages, but data are not available to determine whether service provision is more cost-effective and efficient at the local or state level. For state-funded collection events, per-pound HHW collection costs have decreased nearly one-quarter since 1999. |
| Provide services in all areas of the state and tailor needs to meet different communities | DEQ's combination of planning grants, facilities grants, and state-sponsored collection events provides a range of options designed to meet the needs of local governments and provide HHW services throughout Oregon. In areas that do not already provide services, additional assistance may be needed to help those counties that have not yet pursued the options available to them, such as planning grants or implementation of existing local plans. |
| Focus efforts and resources in areas and services which will achieve the greatest environmental and health benefit | Efforts conducted under the 1999 HHW Plan helped provide HHW management options in communities that lacked such service. More information is needed to determine which areas can achieve the greatest environmental and health benefits. Identifying areas with unlined landfills, significant unserved populations, vulnerable drinking water resources, and other sensitive ecosystems and residents will help direct future efforts to yield greatest benefits. |
| Meet the mandate of ORS 459 | Through its collection programs for HHW and CEG waste, educational efforts, permitting activities, statewide HHW services contract, and other activities, DEQ continues to meet the mandate of Section 459 of the <i>Oregon Revised Statutes</i> . |

Appendix A. Summary Matrix of 1999 HHW Plan Activities, Goals, and Results

| Program Element/Service | Summary | Outcome/Results |
|-------------------------|--|---|
| HHW Collection | | |
| Facility grants | <ul style="list-style-type: none"> • Offer grants for two different types of facilities: “Full depots” (accept all types of HHW) and “High hazard depots” (accept a smaller number of waste types). • Full depot grants: \$60,000 to \$100,000 each. • High hazard depot grants: \$30,000 to \$50,000 each. | <p>Grants awarded (all full depots):</p> <ul style="list-style-type: none"> • \$243,715 (2002) Wasco, Marion, Columbia • \$154,650 (2003) Hood River, Deschutes • None in 2004 <p>All facility grant requests to date have been awarded.</p> |
| Other collection grants | <ul style="list-style-type: none"> • Offer small grants for communities to improve collection opportunities for a limited number of wastes (such as lead acid and Ni-Cd batteries, motor oil, antifreeze, and fluorescent light bulbs). • Collection may include return-to-retail, curbside collection, or expanded equipment for HHW drop-off at an existing disposal site or recycling center. | <p>Grant provided for a truck to serve Polk County (via Marion County HHW facility).</p> |

| Program Element/Service | Summary | Outcome/Results |
|---|--|---|
| HHW Collection (continued) | | |
| Collection events | <ul style="list-style-type: none"> • Total number of events is expected to decrease from pre-1999 HHW program. • A minimum of \$100,000 per year will be reserved to fund collection events. • Events will be provided by a DEQ contractor. • Some communities may increase their share of responsibilities for event management and/or waste handling. • Event promotion will target high-hazard wastes. | <p>1999-2005 HHW events (for residential generators only):</p> <ul style="list-style-type: none"> • \$272,339 (1999) • \$230,497 (2000) • \$189,286 (2001) • \$172,325 (2002) • \$155,162 (2003) • 296,928 (2004) • \$219,000 estimated (2005) <p>Other 1999-2005 program expenses:</p> <ul style="list-style-type: none"> • Thermometers \$24,600 • Mercury collection and Tribal training \$4,445 • 2004 Free Mercury Collection \$14,900; to be continued in 2005 (without fluorescent lights) <p>DEQ conducted several events where no latex paint was accepted. The agency could do more to target high-hazard wastes.</p> |
| Facility reimbursement for out-of-area wastes | <ul style="list-style-type: none"> • Existing service at Metro facilities only. Non-Metro area residents may deliver their HHW to a Metro HHW depot at no charge to them; DEQ reimburses Metro. | <p>Metro reimbursement program \$278,685 for 1999-2005; contract is up for renewal in 2005.</p> <p>In 1999, program had 281 participants and cost \$41,215; in 2004, there were 886 participants at a cost to DEQ of \$65,000. Low numbers in 1999 may be due to accounting. An estimated 60% are from outside Metro boundary but inside Washington, Multnomah, and Clackamas counties; nearly one-third are estimated to come from counties that will have a facility in 2006.</p> |

| Program Element/Service | Summary | Outcome/Results |
|--------------------------------------|---|--|
| Public Education | | |
| Education grants | <ul style="list-style-type: none"> • Grants for waste prevention education to encourage people to use fewer and less hazardous materials. | <p>Grants awarded:</p> <ul style="list-style-type: none"> • \$5,000 (1999) Clatsop – flyer • \$19,970 (2001) Douglas – behavior change campaign • \$20,000 (2003) Deschutes – natural gardening campaign • \$20,000 (2004) Douglas – reprint materials from 2001 campaign <p>Few applications received; never rejected for lack of funds but for inadequate proposals.</p> |
| Publications | <ul style="list-style-type: none"> • Continue to print and distribute publications (booklets, brochures), such as “The Hazardless Home Handbook” and “Natural Gardening.” • Distribute through local governments, poison control, fire safety, and public health professionals. | <p>DEQ spent \$29,500 on public education between 1999-2005 for display/media packets. Costs for printing the Hazardless Home handbooks, Natural Gardening books, and other brochures have not traditionally been included in the \$800,000 HHW budget; produced jointly with Metro. Produced traveling displays and updated event materials.</p> |
| Public Service Announcements (PSAs), | <ul style="list-style-type: none"> • Contract for the development of video, printed, and possibly radio public service announcements (PSAs). • Provide PSAs to local governments and some direct placement. | <p>This was not done.</p> |
| Clip art and other materials | <ul style="list-style-type: none"> • DEQ may distribute clip art to local governments. • DEQ may prepare brochures, cards, retail signs, and other materials for distribution at events and facilities. | <p>DEQ currently distributes materials at events and through local government, garden clubs, and schools (minimal), in conjunction with state-sponsored collection events.</p> |
| Hotline | <ul style="list-style-type: none"> • Contract with Metro’s statewide HHW information hotline. | <p>DEQ contracts with Metro to provide this service. The 1999-2005 budget includes \$14,400 to Metro for the hotline. Metro tracks phone calls and reports results by county, and the hotline appears to be underutilized.</p> |

| Program Element/Service | Summary | Outcome/Results |
|----------------------------------|--|--|
| Supporting Services/Other | | |
| Facility rules or guidelines | <ul style="list-style-type: none"> • Adoption of rules or promulgation of voluntary guidelines for permitting of permanent HHW facilities (and perhaps events). | <p>Rules were written, but DEQ executive management determined that rules were not necessary. Guidelines were updated and are posted on the agency’s web site. Enforcement is limited to permitted facilities.</p> |
| Planning grants | <ul style="list-style-type: none"> • Grants for local governments to evaluate local HHW management options and plan for a local management system. • Planning grants are up to \$10,000. | <p>Grants awarded:</p> <ul style="list-style-type: none"> • \$40,000 (1999) Clatsop (not completed), Deschutes, Lincoln, Umatilla, Hood River/Sherman/Wasco • \$50,000 (2000) Columbia, Douglas, Marion, Polk, Hood River/Sherman/Wasco • \$10,000 (2002) Hood River/Sherman/Wasco • \$30,000 (2003) Coos, Benton, Klamath • \$30,000 (2004) Linn, Baker/Union/Wallowa |
| Purchaser program | <ul style="list-style-type: none"> • Local governments may use DEQ’s contract for HHW collection events and/or waste removal, rather than conducting their own contractor selection and contract negotiation. | <p>Contract is primarily designed for communities that hold one-day collection events; may need to provide more options to assist permanent facilities.</p> |
| Technical assistance | <ul style="list-style-type: none"> • “As needed” assistance to local governments studying or implementing HHW programs. | <p>Provided by regional staff with support from headquarters staff. Some inconsistency between the service provided to different communities based on regional staff.</p> |
| Producer responsibility | <ul style="list-style-type: none"> • DEQ will support expansion of voluntary programs and may support specific regulatory options (e.g., product bans, consumer education and/or labeling requirements). • DEQ will work with citizens, local governments, businesses, and the Legislature to explore producer responsibility options. | <p>DEQ is a leader in the mercury thermostat product stewardship project and will conduct a pilot project to provide incentives to contractors this spring. DEQ is discussing a thermostat mail-back pilot project with Home Depot and local energy utilities. State legislation passed on mercury thermometers and thermostats.</p> <p>DEQ was a stakeholder in NEPSI (electronics), carpet, and paint dialogues. DEQ staff members participate in the Northwest Product Stewardship Council and sit on the board of the Product Stewardship Institute.</p> |

| Program Element/Service | Summary | Outcome/Results |
|-------------------------------------|---|---|
| Program Evaluation | | |
| Track indicators of program success | <ul style="list-style-type: none"> • Number of people using HHW collection and management opportunities. • Percentage of public aware of HHW and availability of HHW collection options. • Amount of HHW collected. • Amount of each high hazard type collected. • Cost per pound of HHW managed through the HHW collection systems. • Collection system costs per participant. • Facility reimbursements for out-of-area wastes. • Changes in the nature of HHW materials collected. | <p>In 1999-2004, DEQ sponsored 42 HHW collection events, collecting more than 1 million pounds of HHW from more than 10,000 participants. Expenditures totaled about \$1.3 million over six years, and DEQ paid on average \$0.96 per pound for the waste collection, handling, and disposal.</p> <p>Locally sponsored events were also held through DEQ's statewide contract. Data are not available on events arranged independently by local jurisdictions, though such information could be collected in the future.</p> <p>Available data on facility reimbursements and types of HHW collected could be analyzed further.</p> <p>Public awareness surveys were not conducted.</p> |
| Annual review of data | <ul style="list-style-type: none"> • Review data from Poison Control Centers, fire departments, and water treatment facilities in areas served by HHW facilities to estimate the impacts of HHW on health and the environment. | <p>Some national poison control data are available, but not for Oregon.</p> <p>Each local HHW plan has some of this information.</p> <p>Annual review was not conducted.</p> |
| Track local government response | <ul style="list-style-type: none"> • Number and type of grants requested. • Number of each grant type requested. • Number of HHW facilities operating and the population of the service area. • Number of collection events requested. • Number of collection events provided. • Number and types of <i>alternative</i> collection systems established. | <p>DEQ has funded 18 planning grants and 5 facilities grants for sites scheduled to open in 2005 and 2006.</p> <p>In 1999-2004, DEQ has conducted 42 collection events of 114 requested.</p> <p>Other collection activities included a pilot lamp recycling project in Lane County and statewide thermostat collection (through installers).</p> |
| Establish benchmarks | <ul style="list-style-type: none"> • Collect public awareness surveys to assess baseline levels. • Conduct follow-up public awareness surveys. | <p>DEQ has not conducted a customer satisfaction survey or formal evaluation of the HHW program. A few areas have done collection event surveys or phone surveys.</p> |

Program Goals as Described in 1999 HHW Plan

New Program Goals

- Reduce the use of hazardous household products
- Reduce improper use and storage of HHW
- Reduce amount of HHW disposed of in landfills, sewer, and environment
- Encourage partnerships and collaborative relationships beyond DEQ
- Provide services efficiently and cost-effectively
- Provide services in all areas of the state and tailor needs to meet different communities
- Focus efforts and resources in areas and services which will achieve the greatest environmental and health benefit
- Meet mandate of ORS 459

Appendix B

Summary of February 2005 HHW Stakeholder Survey Results

HHW Stakeholder Survey Results

Oregon DEQ HHW Plan Update

February 2005

Key Findings

Local governments, waste haulers, and other stakeholders surveyed in February 2005 reported:

- Oregon's **1999 HHW Plan has worked well**, particularly with regard to **planning grants and facility grants**.
- **Insufficient funding** often hinders local HHW management efforts. Some stakeholders expressed interest in DEQ's assistance in identifying alternate sources, including those outside government, such as product manufacturers and retailers.
- **Manufacturers and retailers should do more** to support local HHW programs, and respondents recommended that **product stewardship initiatives should be a top priority** for DEQ. **Waste prevention education** was also a high priority.
- DEQ should place a **lower priority on state-funded collection events as well as ensuring equity** and comparable service levels across the state, though stakeholders emphasized the need for addressing the largest risks and assisting communities unable to support their own programs.
- DEQ should assist local governments by providing local HHW plan **templates and other model materials**, forming **new partnerships**, and facilitating **information exchange**. Respondents also support DEQ's efforts in education, technical assistance, and grants.

The remainder of this summary presents additional information on the survey results, and a separate file provides detailed survey results as well as verbatim responses from stakeholders.

Background & Methods

From February 2 to 18, 2005, Cascadia Consulting Group conducted an online survey of stakeholders from local governments in Oregon, waste haulers, and other groups, such as nongovernmental organizations, HHW contractors, and trade associations. The stakeholders surveyed included representatives from areas with no local HHW plans, those currently developing plans, areas with existing plans, and locations with collection facilities (either existing or scheduled to be open by 2006). Prior to the external stakeholder survey, Cascadia conducted a pretest of the instrument with 10 members of DEQ's HHW technical assistance team and other agency staff.

We contacted 33 external stakeholders from a list provided by DEQ (see Appendix A) and obtained surveys from 27 respondents, for a response rate of over 80 percent. (About three surveys, however, were substantially incomplete.) Of the survey respondents, most (63%) reported that household hazardous waste (HHW) issues represented one of several job responsibilities, rather than the primary focus of their work (Question 1). Half of the respondents said they were familiar with the State's 1999 HHW Plan, and an additional third was "somewhat" familiar with it (Q2).

Survey Results

A. Current HHW Plan

Respondents reported that the current HHW Plan has worked well, particularly the planning and facilities grants. Many respondents said that the current Plan has served communities well in the following areas (Q3):

- Facility grants to establish permanent facilities
- Planning grants to help local governments start their own programs
- Collection events
- Technical assistance
- Focus on highest hazard waste

Respondents offered several areas in which the plan could be improved. When asked which areas of the current HHW Plan need improvement, respondents offered a wider range of responses, including the following (Q4):

- More waste prevention activities
- Increased public awareness and education campaigns, including of alternative products
- Better opportunities for sharing information
- More assistance to communities to secure funding for facilities
- More detailed look at responsibility for the cost of HHW end-of-life management
- Consideration of funding sources for HHW programs other than government funds
- Reducing the actual quantity of hazardous products used and disposed
- Focus efforts on smaller counties that cannot support their own events or facilities
- Stronger push for permanent facilities in counties with unlined landfills
- More fair and equitable method for allocating funds

Some respondents in areas without local HHW plans expressed concerns about the availability of state-funded collection events.

B. Local HHW Management – Existing Programs

When asked how various sectors were contributing to HHW management in their own communities, most respondents felt the level of effort was “**about right**” for three areas (Q5):

- **State government** (63% said “about right”)
- **Local government** (75%)
- **Waste haulers** (83%)

Only one or two respondents felt any sector was doing too much, but **one-third reported that state government was not doing enough** in their communities.

The vast majority (79%) felt that **manufacturers and retailers were not contributing enough** to HHW management.

Respondents offered the following suggestions on how each of the four sectors could improve its contribution to HHW management (Q6).

State Government

- Statewide promotion of education programs
- DEQ funding for Jackson County events

- Legislation requiring local governments and haulers to support HHW events and promotions
- State should have dedicated funding to support HHW collection events

Local Government

- Local governments could work together to pay for HHW programs
- Improve the amount of HHW generated or improperly disposed
- Legislation to ensure that manufacturers and retailers pay the cost of HHW management
- More staff and financial assistance
- More options for small businesses

Waste Haulers

- Provide better education on waste reduction and recycling
- Offer alternatives for the handling of hazardous waste

Manufacturers & Retailers

- Increased producer responsibility and stewardship
- Provide and fund collection services
- Promote and fund educational messages
- Retailers should promote less toxic alternatives
- Offer take-back programs
- Provide information at the point of sale about proper disposal of products including batteries, electronics, cleaning products, and pesticides.

Local Collection Programs

The convenience and quality of HHW collection are generally good in many areas, while **frequency of collection could often be improved** (Q12). When asked to rate their local opportunities for HHW collection, respondents gave the **highest ratings to quality**, with (54% “excellent,” 42% “good”). **Convenience** received the next best ratings (38% excellent, 33% good). Ratings for **frequency** were distributed almost evenly across all four categories: fair (25%), poor (29%), good (21%), and excellent (25%).

C. Local HHW Management – Enhancing Future Programs

Barriers

Not surprisingly, many respondents reported that **lack of funding is a major barrier to improving HHW management in their communities**. Barriers to improvement noted in the survey included the following responses (Q13):

- Lack of funding/money (most common response, mentioned by all respondents in the “have plan” category and most of those in the “planning now” group)
- Inadequate public education
- Politics, including public opposition to permanent facility
- State and federal liability laws
- Lack of legislative mandates
- Lack of staffing
- Difficulty engaging retailers and manufacturers to address their HHW responsibilities
- County size too small

Opportunities

Many opportunities exist for improving HHW management in communities. Respondents cited a range of opportunities for improving HHW management in their communities, including the following topics (Q14):

- Opening of permanent facilities and enhanced collection opportunities
- State-funded HHW collection events
- Supporting regional and national product stewardship initiatives and obtaining funding from manufacturers and polluters
- Expanding education opportunities, including waste reduction, alternative products, and recycling
- Continuing a local Paint Smart program
- Forming partnerships with other stakeholders and groups in the community, such as those concerned with water quality
- Cooperation among city and county partners
- Cooperation with local waste haulers
- Dedicated state or county funding or state or federal grant opportunities

HHW Management in Communities without Plans

To encourage local efforts in communities that have not developed local HHW management plans, stakeholders recommended that DEQ pursue a number of strategies including (Q17):

- Provide examples or templates of management plans (multiple responses)
- Assess the communities' needs and determine why plans are not being developed
- A statewide legislative mandate requiring an HHW program in every county (Q20)
- Planning grants to motivate local jurisdictions
- Funding, outreach, and support
- Education and information about HHW and environmental impacts
- Restrict state funding for collection events until management plan is developed
- Encouraging partnerships among potential participants in planning and implementation
- Enlist communities in product stewardship and secure funding from producers/retailers
- Help local government secure funding sources for plan implementation

Respondents from areas without local HHW plans frequently mentioned DEQ assistance, funding, and resources, including templates or sample plans. Those with local plans also noted the importance of help from DEQ, including funding, templates, and other assistance.

D. Funding Priorities

Priorities by Activity Type

When asked how DEQ should allocate its HHW management resources across different activity areas, the average responses ranked the priorities as follows (Q7):

1. Product stewardship/market transformation (46% for #1=highest priority)
2. Waste prevention education (73% ranked it #2 or #3)
3. Support/grants to local HHW programs (62% ranked it #2 or #3)
4. State-funded HHW collection events (54% ranked it #4=lowest priority)

However, as shown in Table 1, responses varied considerably among stakeholders. The survey did not show consensus on priorities, though a high priority for product stewardship and a low priority for state-funded collection events was common across many respondents.

In general, respondents from communities that have HHW facilities or local HHW plans favored product stewardship/market transformation as the top priority, and they ranked state-funded HHW collection events lowest. For communities that are currently planning or lack local plans, most respondents stated that grants to local HHW programs and state-funded HHW collection events should be the highest priorities and that product stewardship should be a low priority.

Table 1. Recommendations of How DEQ Should Set Priorities across Activities (Q7)

| | 1=highest priority | 2 | 3 | 4=lowest priority | Response Average |
|---|--------------------|---------|----------------|-------------------|------------------|
| Product stewardship/market transformation | 46% (11) | 25% (6) | 4% (1) | 25% (6) | 2.08 |
| Waste prevention education | 23% (5) | 32% (7) | 41% (9) | 5% (1) | 2.27 |
| Support/grants to local HHW programs | 24% (5) | 29% (6) | 33% (7) | 14% (3) | 2.38 |
| State-funded HHW collection events | 12% (3) | 17% (4) | 17% (4) | 54% (13) | 3.13 |

Respondents also suggested additional priority areas including (Q8):

- Staff and technical support to assist local jurisdictions with program/facility development and permitting
- School system, including labs and agriculture departments
- Areas least able to provide and fund local HHW services

Priorities across the State

As DEQ sets funding priorities, respondents said that the following factors should be considered (Q9):

- Addressing the largest environmental risks and needs (50% ranked this highest priority)
- Serving areas least able to provide and fund local HHW services (48% ranked it highest, but this choice generally ranked lower among respondents in areas with HHW facilities)

In contrast, 67% said that ensuring equity and comparable service levels across the state should be the lowest of the three priorities (see Table 2). Several respondents commented that, while DEQ should assist those in need, the agency should be careful not to reward those communities that choose to rely on state services when they could afford to improve their own HHW programs instead (Q10).

Table 2. Recommendations for Factors DEQ Should Consider in Setting Funding Priorities (Q9)

| | highest | medium | lowest | Response Average |
|---|-----------------|----------|-----------------|------------------|
| Addressing the largest environmental risks and needs | 50% (12) | 42% (10) | 8% (2) | 1.58 |
| Ensuring equity and comparable service levels across the state | 5% (1) | 29% (6) | 67% (14) | 2.62 |
| Serving areas least able to provide and fund local HHW services | 48% (11) | 30% (7) | 22% (5) | 1.74 |

Priorities across Local Programs

Under the State's existing HHW Plan, some communities have prepared and implemented local HHW plans, including development of programs and facilities. Other communities have developed local plans but have not implemented them, while other areas have not prepared local plans. To set funding priorities across these different communities, respondents recommended that DEQ should focus primarily on areas that have not developed local HHW plans or not implemented existing local plans (Q11). Funding support for local governments with existing HHW programs and facilities ranked lowest, among nearly three-quarters of respondents (see Table 3).

Respondents did not appear to recommend funding priorities based on their own planning status (e.g., no HHW plan, have plan, or have facility). For example, in communities without HHW plans, respondents were split evenly between ranking areas that have “not developed local HHW plans” as the highest or lowest priority. In fact, those without plans placed a higher priority on providing funding to areas with “developed local HHW programs and facilities” than any other group, including those with facilities.

Table 3. Recommendations for DEQ's Funding Priorities across Local Governments (Q11)

| | Highest | medium | lowest | Response Average |
|--|-----------------|-----------------|-----------------|------------------|
| Not developed local HHW plans | 43% (10) | 35% (8) | 22% (5) | 1.78 |
| Prepared but not implemented local HHW plans | 39% (9) | 57% (13) | 4% (1) | 1.65 |
| Developed local HHW programs and facilities | 17% (4) | 9% (2) | 74% (17) | 2.57 |

Types of DEQ Assistance

Respondents expressed strong support (75% or more) for DEQ's assistance to local communities in the form of (Q16):

- Education programs
- Technical assistance
- Grants
- Options to purchase HHW services via statewide contracts

Stakeholders also suggested that DEQ could support the development of industry organizations that supply such HHW services; increase the per-ton fee on municipal solid waste disposal to help fund HHW programs; and provide templates or models for education, promotion, health and safety plans, and other efforts.

Out-of-area HHW Disposal

When local governments accept HHW waste from outside their borders, the majority of stakeholders (67%) felt that **DEQ should reimburse the local facility for the costs of disposal** (Q15). More than half (54%) felt that the local government from whose jurisdiction the waste originated should pay for its disposal (multiple responses were allowed). Respondents also noted that the waste generators, producers and manufacturers, and companies collecting the waste should share in the costs of disposal.

E. Future Directions for HHW Plan Update

New Program Options

As DEQ moves forward with its HHW Plan update process, stakeholders recommended consideration of the following HHW management options and models (Q18):

- Multi-jurisdictional HHW programs and agreements
- Regular meeting opportunities with DEQ, contractors, and local government
- Stakeholder-managed programs, such as Alberta's stewardship programs for tires and electronics
- Proactive HHW services available to citizens, such as those in Corvallis, Albany, and McMinnville
- Mobile HHW collection units in rural counties
- Have DEQ organize contracting with private companies for management of new HHW facilities (instead of each jurisdiction contracting the work separately)
- Examine Washington state models for helping schools handle hazardous waste materials and for funding HHW facilities through fees on hazardous products

Final Comments to DEQ

At the conclusion of the survey, stakeholders also offered the following additional comments to DEQ as it develops a revised HHW Plan (Q20):

- DEQ should change its focus to lead, not accommodate
- DEQ needs to be realistic in its expectations for local government
- Priority needs to be given to counties with significant populations that lack program funding sources and staff for waste management activities
- The Plan should explicitly consider an option where the responsibility for HHW would be turned over to product stewardship boards
- DEQ needs better understanding of CERCLA/Superfund liability issues for companies
- Oregon's HHW management situation will continue to improve as more facilities open and the process becomes more streamlined

Appendix A. External Stakeholders Contacted for HHW Survey

| # | Category | Status | Local Government | Contact | Survey Response |
|----|----------------------|-----------------------|-----------------------------------|---|------------------------|
| 1 | Local Government | Facility (or by 2006) | Columbia County | Matt Tracy | Responded |
| 2 | Local Government | Facility (or by 2006) | Deschutes County | Chad Centola | Responded |
| 3 | Local Government | Facility (or by 2006) | Deschutes County | Timm Schimke | Responded |
| 4 | Local Government | Facility (or by 2006) | Lane County | Larry Gibbs | Responded |
| 5 | Local Government | Facility (or by 2006) | Marion County | Jeff Bickford | Responded |
| 6 | Local Government | Facility (or by 2006) | Metro | Jim Quinn | Responded |
| 7 | Local Government | Facility (or by 2006) | Metro | Scott Klag | Responded |
| 8 | Local Government | Facility (or by 2006) | Metro | Lisa Heigh | Responded |
| 9 | Local Government | Facility (or by 2006) | Wasco County | Glenn Pierce | No response |
| 10 | Local Government | Have Plan | Benton County | Gordon Brown | Responded |
| 11 | Local Government | Have Plan | Douglas County | Terri Peterson | Responded |
| 12 | Local Government | Have Plan | Polk County | Gene Clemmens | Responded |
| 13 | Local Government | Have Plan | Umatilla County/City of Pendleton | Karen King | Responded |
| 14 | Local Government | Planning Now | Klamath County | Tom Crist | Responded |
| 15 | Local Government | Planning Now | Linn County | John McEvoy | Responded (incomplete) |
| 16 | Local Government | Planning Now | Yamhill County | Sherri Matherson | Responded |
| 17 | Local Government | No Plan | Tillamook County | Kathy Schwinck | Responded |
| 18 | Local Government | No Plan | Wheeler County | Judge Jeanne Burch | No response |
| 19 | Solid Waste Industry | Have Plan | Umatilla County | Susan or Mike McHenry (Pendleton Sanitary) | Responded |
| 20 | Solid Waste Industry | Planning Now | Linn County | Mike Huycke (Albany Lebanon Sanitation) | Responded |
| 21 | Solid Waste Industry | Planning Now | Union County | Darin Larvik (City Garbage Service) | Responded |
| 22 | Solid Waste Industry | No Plan | Baker County | Loren Henry (Baker Sanitary) | No response |
| 23 | Solid Waste Industry | No Plan | Clatsop County | Dave Larmouth | Responded |
| 24 | Solid Waste Industry | No Plan | Jackson County | Don Cordell/Denise Wolgamott (Rogue Disposal) | Responded |
| 25 | Solid Waste Industry | No Plan | Malheur County | Scott Wilson (Ontario Sanitary) | Responded |
| 26 | Other | Other | Waste Connections | Eric Merrill | Responded (incomplete) |
| 27 | Other | Other | Heath Care without Harm | Neha Patel | Responded |
| 28 | Other | Other | MSE | Alan Ranf | Responded (incomplete) |
| 29 | Other | Other | MSE | Sean DeHan | No response |
| 30 | Other | Other | ReSource | Mike Riley | No response |
| 31 | Other | Other | ORRA | Max Brittingham | No response |
| 32 | Other | Other | PSC | Mike O'Donnell | Responded |
| 33 | Other | Other | OSU Extension-Sherman County | Sandy Macnab | Responded |

Appendix C

Stakeholder Briefing Paper for June 2005 Meeting:
Updating the Oregon HHW Plan

Updating the Oregon HHW Plan

Briefing Paper

Prepared for Oregon HHW Plan Stakeholders
May 31, 2005

Oregon Department of Environmental Quality
Cascadia Consulting Group

Outline

- 1) Introduction and overview
- 2) Assessment of 1999 HHW Plan & current program
- 3) Findings from the Stakeholder Survey
- 4) Key issues
- 5) Goals and assumptions shaping the 2005 Plan
- 6) 2005 Plan scenarios

Introduction & Overview

Planning Overview & Process
Rationale for the HHW Program

Input needed from Stakeholders

This briefing paper has been prepared for stakeholders as part of the process of updating the 2005-2010 Oregon HHW Plan. This paper, prepared in Power Point format, provides an overview of the planning process, an assessment of the 1999 HHW Plan, and possible future goals, directions, and elements of the 2005-2010 Plan.

DEQ seeks input from stakeholders as part of this process. The meeting on June 7th will provide stakeholders with the opportunity to share their views and contribute ideas. Stakeholders who are not able to attend that meeting will be able to provide input by email. Stakeholder input is both vital and advisory. DEQ will use the input to make the decisions on future directions, key elements, and funding priorities for the 2005-2010 HHW Program. Questions to answer include:

- Are stakeholders' views accurately captured in the stakeholder survey results?
- Which of the four plan scenarios are preferred? Which program options should the highest priority for implementation?
- Should any other issues or options be examined and considered by DEQ as it completes the plan?

The HHW Program and DEQ Priorities

Four strategic directions and priorities guide DEQ's work:

- Priority 1:** Deliver excellence in performance and product
- Priority 2:** Protect Oregon's water
- Priority 3:** **Protect human health and the environment from toxics**
- Priority 4:** Involve Oregonians in solving environmental problems

While the HHW program supports all four priorities, **Protecting Human Health and the Environment from Toxics** provides the core purpose and mission of DEQ's household hazardous waste program. The key actions under this priority are to reduce and prevent toxic releases to air, water, and land.

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HHW Risks: What's the Problem?

- **Small quantities of hazardous materials are ubiquitous in the homes of Oregon's citizens.** Known as Household Hazardous Wastes (HHW), these materials include items such as mercury, pesticides, used motor oil, and certain types of household cleaners.
 - On average an estimated 3-8 gallons of HHW are found in Oregon households.
 - These materials can be highly toxic in minute quantities: Exposure to low levels of mercury (found in thermostats, switches, and thermometers) can adversely affect nerve and brain function.
- **Many of these hazardous materials are also found in businesses and the agricultural sector.** These Conditionally Exempt Generators (CEGs) are exempt from hazardous waste handling regulations. Nonetheless, danger to humans and the environment can result from improper use and disposal.
- **Potential risks to citizens include poisoning, fire hazards, neuro-toxic disorders, cancer, and death.** Children and senior citizens are particularly vulnerable.

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HHW Risks: What's the Problem?

- **Risks from HHW stem from improper use, handling, and disposal** – often due to ignorance or lack of access to adequate facilities. HHW wastes are dumped illegally (e.g. down storm drains), disposed in unlined landfills, burned in incinerators and burn-barrels, spilled in homes and businesses, and poured down the drain. They can contaminate our groundwater, air, and wastewater treatment systems. Once in the environment, they eventually can make it into our bodies.
- **Hence the Oregon DEQ has a compelling interest in proper management of HHW**, including safe use, handling, and proper disposal.
- **Over the long term, Oregon's health care costs could be higher if HHW is not managed properly** and the quality of life of citizens could degraded.
- **Accordingly, the overriding purpose of this program is to minimize risk to citizens and the environment from HHW** – providing both short- and long-term benefits to the economic prosperity and community well-being of the State.

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HHW Planning Overview

DEQ's current HHW plan, developed in 1999, extends through June 2005.

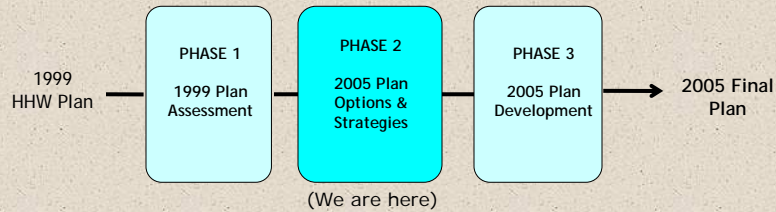
- **Much has been accomplished under this plan, but new issues and challenges have emerged** and must be addressed to continue making progress towards the overarching priority of protecting human health and the environment.
- **This HHW plan update is intended to address these current and future needs, as well as opportunities.** The final plan will consist of strategies, investments, programs, and policies designed to make Oregonians and the environment safer and healthier.
- **This presentation includes initial recommendations and alternative scenarios that will provide the basis for discussion and decision making for the current plan development phase.** The options developed were created based on many factors:
 - The HHW program's goals
 - Key issues identified by DEQ, stakeholders, and the consultant team
 - Consideration of resource constraints and assumptions
 - Evaluation of the existing 1999 HHW Plan

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2005 HHW Plan Update Process



Phase 1: Assess performance of 1999 Plan and identify program needs; conduct stakeholder survey; input from DEQ. (complete)

Phase 2: Identify and evaluate options and strategies for 2005 HHW Plan; input from DEQ, PMT group, and stakeholders. (May/June)

Phase 3: Decision making on strategic direction and operational issues; draft HHW Plan. (June/July)

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Assessment

Methodology
Plan Accomplishments
Stakeholder Perspectives
Plan Shortcomings
Operational Needs

Methodology

- The first phase of the plan update involved assessing the performance of the 1999 plan and identifying program needs.
- To carry out this assessment, the consultant team collected and analyzed quantitative data on program activities, surveyed stakeholders, and debriefed DEQ program staff.
- Findings from this research are summarized in the following slides. More detail will be available in two separate memos that will be attached to the final report.

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1999 Plan Accomplishments

The 1999 HHW plan successfully achieved many of its goals

DEQ Support to Local Governments

- Nearly \$650k in grants ('99-'04) were awarded to local governments for facilities, planning, and education; 17 planning grants were awarded, 10 have been completed to date.
- DEQ's purchaser program supported HHW collection by local governments.

HHW Collection

- DEQ awarded facility grants to construct 5 new permanent, local HHW collection facilities.
- By 2006, nearly two-thirds of the state's population will be served by permanent facilities.
- DEQ sponsored 42 HHW events around the state, serving areas with populations totaling more than half a million people.

Public Education & Product Stewardship

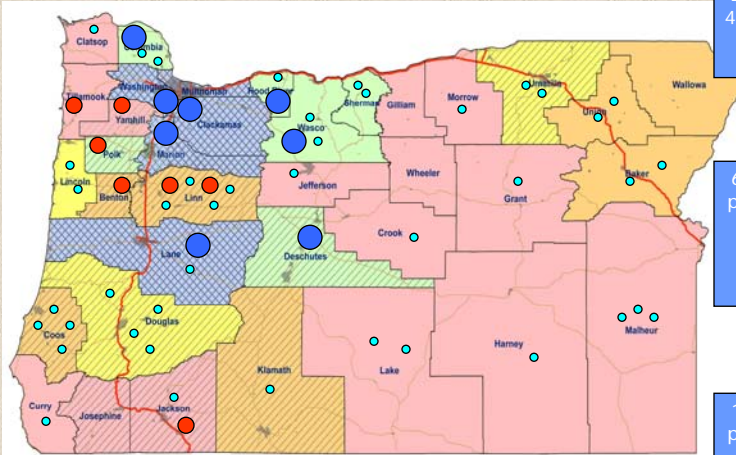
- Distributed education materials and updated PR materials
- Supported Metro's HHW Hotline
- Awarded four education grants
- Lead mercury collection and mercury thermostat product stewardship efforts

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1999 Plan Accomplishments



DEQ sponsored 42 HHW collection events between 1999-2005.

66% of Oregon's population will be served by permanent facilities by 2006.

16% of Oregon's population will be served by local collection events by 2006.

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Stakeholder Perspectives

Generally positive about program & accomplishments

33 external stakeholders were surveyed by Cascadia, via email

Stakeholders were generally positive about the 1999 Plan, particularly the planning and facility grants. Key findings include:

- **Convenience and quality** of collection programs are good.
- **Funding** limits local HHW management efforts.
- **Product stewardship and waste prevention education should be high priorities.** Manufacturers and retailers should do more to manage HHW.
- **Lower priority should be given to DEQ collection events and ensuring equity** across the state.
- **DEQ should address the largest risks** and assist communities unable to support their own programs.
- **DEQ should continue to assist local governments** with plan templates, model materials, forming new partnerships, and facility information exchange.

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1999 Plan Assessment

Key needs associated with program operation and monitoring

Operations

Implementation of the 1999 plan, while resulting in a significant increase in service, has led to new challenges associated with operating the program.

- Dealing with out-of-county wastes
- Assistance to local governments to fund and maintain HHW programs once in place
- Meeting needs in counties that have not yet planned (14 counties) or that have planned but not implemented (3 counties)

Information – Understanding risks, needs & program effectiveness

Very little data are available on:

- How HHW is currently being handled and managed by citizens
- Where risks associated with HHW are greatest
- The extent to which this program is meeting needs
- The performance and effectiveness of this program over time relative to needs and risks

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Summary Assessment Rationale for the Plan Update

- **The 1999 Plan has achieved many, though not all, of its original goals.**
 - Many but not all residents are served with HHW collection services, provided by local governments.
 - Efforts to prevent HHW through education and product stewardship have met with limited success.
- **Decisions are needed** on how to deal with the areas where the plan fell short:
 - Including waste prevention, education, and evaluation
- **New issues and needs have emerged** that must be addressed.
 - Operational, information
- **DEQ faces important strategic choices** on how best to allocate its finite resources and get the biggest bang for its buck.
- These needs, issues, and choices are to be addressed and resolved in this Plan Update.

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Crafting the 2005-10 Plan

Methodology
Purpose
Key Issues
Key Assumptions
Possible Goals
Initial Recommendations
Alternative Scenarios

Methodology

- The second phase of the plan update involves identifying and evaluating alternative options and strategies that can best accomplish the mission of the program going forward. Four alternative plan scenarios are presented, each representing different directions for DEQ to pursue.
- Also, several initial recommendations that address basic elements of the program are presented for consideration by management and stakeholders.
- This section begins by summarizing the key issues to be addressed in the plan update, identifying the constraints and assumptions that will affect the scope of the program, restating the purpose of the program, clarifying the program's customers, partners, and stakeholders, and identifying a suite of possible goals to guide future program actions.
- Feedback from management and stakeholders is required on these issues, goals, initial recommendations, and alternative scenarios.

Strategic Issues

Four key strategic issues were identified by DEQ and through the research.

- 1) To what extent should DEQ shift the focus of this program to high hazard materials and areas where HHW pose the highest risk to human health and the environment, reducing expenditures on lower risk materials and conditions?
- 2) To what extent should equity considerations drive program decisions?
- 3) Should DEQ shift resources from popular collection programs to proactive actions such as prevention, education, product stewardship designed to change behavior, products, and markets to reduce HHW risks "upstream"?
- 4) Are there critical needs and opportunities that justify program expansion?

Note: This phase of the planning effort is designed to address these issues.

Operational Issues

Six key operational issues were identified by DEQ and through the research:

- 1) How to deal with the costs incurred by local governments for handling HHW brought to facilities by out-of-county residents
- 2) How to allocate DEQ-sponsored HHW events in the future, determining the appropriate selection criteria and process
- 3) How to respond to new requests for help from local governments that have plans and/or facilities in place
- 4) How to meet the needs of communities that do not have a local HHW plan or are having difficulty implementing their DEQ-funded plan
- 5) How to incorporate program assessment and adaptive management into the ongoing program
- 6) How to effectively engage retailers and manufacturers as partners

Note: These operational issues will be addressed and resolved after the strategic direction of the plan has been determined.

Resource Constraints & Key Assumptions

In developing the updated plan, it is important to understand the resource constraints and assumptions that affect the scope of the program.

- The HHW program's budget is expected to remain at approximately \$800,000 per biennium. Some additional resources may be available in the short-term, but not over the long-term.
- The program is currently staffed by approximately 1.5 FTEs (FTEs range between 1.56-1.89). In the current fiscal environment, it is very difficult to obtain additional FTEs.
- Legislative authority prescribes certain HHW program actions (e.g., education programs and technical assistance).
- DEQ has little data about the HHW problem – e.g. risks, exposure, how behavior is changed, and to what extent needs are being met.

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Defining Customers, Partners, & Stakeholders

The overriding purpose of DEQ's HHW program is to meet the needs of DEQ's customers by reducing risks to human health and the environment that are associated with household hazardous waste.

Who are the customers and what is the role of others in this program?

- **Customers** for this program are residents and CEGs.
- Local governments are DEQ's primary **partners** in meeting the needs of these customers. Utilities, retailers, and other entities engaged in meeting customer needs are secondary partners.
- Key **stakeholders** include health and environmental advocacy organizations, local government staff, engaged elected officials, and industry representatives.

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Possible goals for the new plan

Possible goals to guide programs and investments under the new plan are listed below.

- **Reduce generation** of HHW waste and associated risks.
- Ensure provision of HHW collection and education services to **address the highest risks** (materials, populations, environments).
- Provide services in an **efficient and cost-effective** manner while maintaining high quality standards.
- **Ensure minimum service levels** for collecting HHW & educating customers.
- **Engage manufacturers and retailers** in HHW prevention & management.
- **Maintain and strengthen partnerships** with local governments.

Initial Plan Recommendations – Core Activities

DEQ proposes that certain **core activities** be pursued, regardless of the plan scenario that is chosen. These core activities include:

1) Obtain better information on needs and program performance

- Conduct a baseline study to:
 - Determine how much of what types of HHW are in homes and CEGs
 - Assess program effectiveness and customer awareness, interests, & needs;

Use findings to define performance measures for the program and measure performance on mercury (year 1)

- Conduct ongoing assessments of program effectiveness (year 3 & 5)

Initial Plan Recommendations – Core Activities

2) Continue to assist local governments with assuming responsibility for HHW management

- Complete the planning and facility grants now in the pipeline
- Provide new grants to interested counties that have not yet planned or constructed facilities
- Provide training and technical assistance to local governments
- Continue purchaser program

3) Continue basic education

- Continue publication and distribution of HHW educational materials

4) Continue Existing Plan Commitments

- Metro reimbursement (potentially through 2006)
- Mercury collection
- DEQ-funded collection (events scheduled for Fall 2005)

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Alternative Plan Scenarios

Updating the HHW plan involves determining the future direction of the program - how best to invest resources to get the biggest bang for the buck. To facilitate this decision making, four alternative plan scenarios have been developed for DEQ management and stakeholder consideration:

- 1) **High Risk Focus** – concentrating resources on addressing the highest risks to human health and the environment
- 2) **Waste Prevention First** – focusing resources primarily on activities such as education and product stewardship that seek to reduce the toxicity, use, and disposal of products that contain HHW
- 3) **Basic Collection Service** – ensuring that all residents receive a minimum level of service to collect HHW
- 4) **Status Quo/Baseline** – continuing the current program

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Scenario 1: High Risk Focus

Goal

Ensure that the highest HHW risks are addressed adequately.

Approach

Focus HHW programs on those materials and situations that represent the highest risks to human health and the environment.

- Determine priorities based on relative risk
- Allocate HHW collection services accordingly
 - High hazard materials
 - Vulnerable & highly exposed populations
 - Sensitive environments
- Similarly, concentrate education and market change/product stewardship on the highest priority materials, populations, and situations

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Scenario 1: High Risk Focus – Menu of Possible Options

1. **Conduct a study to establish funding and program priorities based on relative risks to human health and the environment**, considering such factors as material toxicity, vulnerable & highly exposed populations, sensitive ecosystems, routes of exposure, and geographic areas (year 1).
2. Fund local plans that target high-risk hot spots and the management of high-hazard materials.
3. Fund facilities that collect high-hazard materials from geographic hot spots.
4. Limit DEQ collection events exclusively to high-hazard materials in high-risk locations.
5. Purchase and distribute lockers to collect high-hazard materials in remote locations.
6. Limit the facility reimbursement program to out-of-area wastes that are high-hazard only.
7. Expand the mercury collection program.
8. Target education and outreach to high-hazard materials and high-risk populations and geographic areas – including waste prevention education.
9. Continue or expand product stewardship initiatives that focus on high-hazard materials (e.g., mercury).

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Scenario 1: Tradeoffs & Implications

- Adopting this scenario means that resources will be focused on addressing the highest risk situations – regardless of geographic location or level of engagement of the local government.
- **Resources would not be allocated based on equity considerations or local government initiated action.**
- **Less hazardous materials such as latex paint and household cleaners would likely no longer be accepted by state-funded programs.**
- This strategy responds to stakeholders feedback that reducing risk should be the #1 priority of the program and is designed to ensure that all resources are invested to achieve DEQ Strategic Direction 3: *Protect human health and the environment from toxics.*

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Scenario 2: Waste Prevention First

Goal

Oregonians reduce their use of products that contain toxic elements; Manufacturers and retailers sell products that are less toxic. Less household hazardous waste is generated for disposal.

Approach

DEQ funds education, promotion, and product stewardship activities designed to achieve behavior and market change.

- Emphasis is on “upstream” changes, rather than “downstream” collection
- Product stewardship/market transformation efforts focus on:
 - Changing consumer behavior
 - Altering product components, marketplace

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Scenario 2: Waste Prevention – Menu of Possible Options

- 1) Apply the principles of community-based social marketing to develop a comprehensive program to reduce the use of hazardous products and generation of hazardous wastes. This program would likely include:
 - A statewide media campaign, including public service announcements.
 - New educational materials emphasizing waste prevention.
 - An expanded education grants program to support local government outreach initiatives.
 - Volunteer and fund paid educators to provide citizen education.
- 2) Provide local governments with specialized technical assistance to support local education and outreach efforts.
- 3) Increase use of the statewide hotline through better promotion.
- 4) Engage manufacturers and retailers to assist with educational efforts and to modify the HHW content of their products.
- 5) Evaluate effectiveness of educational programs and modify efforts as needed by conducting surveys of household awareness & behavior.

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Scenario 2: Tradeoffs & Implications

- Under this scenario, available funds are focused primarily on education and upstream market change. **State expenditures for collection would be minimized**, unless those collection efforts were proven to be the best way to raise awareness and change behavior.
- Accordingly, after conclusion of the current efforts, **grants for local government planning and facilities could be limited**. Planning grants would likely require a strong focus on education.
- DEQ-funded collection events would be minimized.
- **Pursuing this scenario would require extensive evaluation and a longer-term time horizon to determine results and effectiveness.** Education and product stewardship programs tend to have fewer tangible, measurable results than collection. Risks are higher.
- This scenario would likely require additional FTEs.

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Scenario 3: Basic Collection Service

Goal

All Oregonians have access to a basic level of HHW collection designed to safeguard human health and the environment.

Approach

Determine acceptable minimum service levels; provide needs-based support for local governments and allocation of DEQ HHW collection events.

- DEQ ensures a minimum level of collection service – as funds are available. Service is provided by local government where feasible and by DEQ when not.
- A minimum level of education is also provided, focusing on safe handling and disposal.

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Scenario 3: Basic Collection – Menu of Possible Options

1. **Establish need-based criteria for selecting DEQ collection events**, including frequency provisions, convenience, materials to cover, and population served.
2. Provide grants, technical support, and other incentives to local governments to facilitate implementation of their HHW plans and to provide support for their collection programs.
 - Provide grants for collection trucks or other options to serve outlying areas.
3. Facilitate intergovernmental agreements for HHW disposal.
4. Provide limited reimbursements for accepting out-of-area wastes.
5. Modify state contract to help provide cost-effective contractor support for permanent local collection facilities.
6. Focus educational efforts on proper disposal, locations, etc. (how-to); less emphasis on prevention/reduction in use.
7. Engage manufacturers and retailers to help support collection services, including take-back programs and other retailer-based initiatives.
8. Explore lower-cost options for integrating HHW collection with municipal solid waste collection – e.g., lockers at transfer stations.

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Scenario 3: Tradeoffs & Implications

- The goal of this scenario is to achieve equity at the residents (customer) level, but not in terms of services received by local governments. This approach would be different than the current situation, where local government demand determines where funds and services are allocated.
- Funding could be insufficient to meet minimum needs. Decisions would be needed as to whether to seek additional resources or instead continue to ration services at below standard levels.
- Education would focus on information about proper use & disposal, with less emphasis on behavior change.
- Product stewardship efforts would likely be de-emphasized, and only conducted via other solid waste programs.

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Scenario 4: Status Quo/Baseline

Goal

Engaged local government partners provide HHW collection services and education to their citizens. State-funded events supplement these services.

Approach

DEQ focuses on meeting the requests of local governments for collection events, grants, and technical assistance. Funds not devoted to grants and assistance pay for collection events.

- Services are based on local government demand – not based on relative risk, needs, or basic services
- As grants conclude, shift resources to increased collection events.
- Education and product stewardship efforts continue at a low level.
- Challenges associated with governments that don't participate would need to be resolved.

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Scenario Comparison

Qualitative comparison of the four scenarios

| Scenario | DEQ-Funded Collection | Education | Market Change |
|----------------------------|---|---|---|
| (1) High Risk | Provided in locations and for materials where risks are highest | Targeted to high-risk populations and locations | For products resulting in highest risks |
| (2) Waste Prevention First | None or minimal | Major behavior change campaigns | Significant product stewardship involvement |
| (3) Basic Collection | Basic service statewide, determined by DEQ assessment of need | Service information, materials at events | None (only via other solid waste efforts) |
| (4) Status Quo | DEQ-funded events to interested cities and counties, driven by local government requests | Grants and basic materials available for distribution | Continue current level of effort |
| Core Activities | Fund limited planning and facility grants, technical assistance, purchaser program, existing plan commitments | Baseline and on-going program assessment, publication/distribution of materials | |

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2005 Plan – Next Steps

- DEQ Review & Input (ongoing)
- Cost Analysis & Review of Strategic Scenarios and Options (May -June)
- Decision making on scenarios and operational issues (June/July)
- Draft HHW Plan (July)
- Final HHW Plan (July)

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Appendix D

Summary of Input from June 2005 Stakeholder Meeting

Stakeholder Review of 1999 HHW Plan Update Process

June 7th Stakeholder Meeting Summary

Overview

On June 7, 2005 Cascadia Consulting Group and DEQ presented findings from Oregon's 1999 HHW Plan update process to nearly 20 stakeholders. The purpose of the meeting was to present stakeholders with the work completed to date on the 1999 Plan update and to obtain feedback from stakeholders on their preference of plan goals, scenarios, and menu of plan options. In addition, Cascadia presented findings from the on-line stakeholder survey conducted in February 2005. DEQ sought input from stakeholders on the following questions:

- Do stakeholders concur with the findings from the current program assessment and 1999 Plan?
- Are stakeholders' views accurately captured in the stakeholder survey results?
- Which plan goals do stakeholders believe are most important?
- Which of the four plan scenarios are preferred?
- Should any other issues or options be examined?

Stakeholders who could not attend the meeting were sent a form via email with which they could comment on and rank their preferred plan goals, scenarios, and menu of options. Ten stakeholders submitted comments to DEQ via email.

Stakeholder Perspectives

Detailed notes from the meeting are presented in Attachment A. Email responses are presented in Attachment B. Key outcomes and stakeholder perspectives include:

- **Stakeholders were generally pleased** with the review and assessment of the 1999 HHW Plan.
- **Survey results accurately captured stakeholder viewpoints**, although only one third of the stakeholders at the meeting had completed the on-line survey.
- **Concern over the small number (27) of survey respondents** and the lack of stakeholders at the meeting who represented counties outside of the Willamette Valley area. (Ten additional stakeholders provided comments on the plan scenarios and goals via email – see Attachment B).
- General **agreement with the recommended four Core Activities**. Some stakeholders cautioned DEQ about spending too many resources on needs and program performance studies.
- Most stakeholders chose “**reduce generation of HHW waste and associated risks**” as their first choice for the plan goal, followed by “ensure provision of HHW collection and education services to address the highest risks” and “maintain and strengthen partnerships with local governments.”

- The 2005 HHW Plan should move the program forward and not maintain status quo. Most **stakeholders preferred the High Risk and Waste Prevention First scenarios**, although several questions were raised about the risk study and the level of education and collection that would occur under these two plan scenarios.
- **Stakeholders had differing support for the four plan scenarios.**
 - Stakeholders were split between the High Risk Focus and Waste Prevention First scenarios. While most stakeholders chose High Risk or Waste Prevention First (17), some stakeholders preferred the Basic Collection scenario (5).
 - The majority of stakeholders chose the Status Quo scenario as their least preferred scenario.
 - When asked to select their first choice scenario, most stakeholders (7) chose Waste Prevention First. Five stakeholders chose the High Risk Focus and three chose basic collection. During this exercise, no one chose Status Quo.
 - Stakeholders who completed the email survey were split between the Waste Prevention First scenario and the Basic Collection scenario. The majority chose Status Quo as the fourth scenario (7).
- Some **stakeholders supported a hybrid scenario** of High Risk and Waste Prevention First.
- **Stakeholders favored the following six plan options:**
 - Fund local plans that target high-risk hot spots and the management of high-hazard materials;
 - Target education and outreach to high-hazard materials and high-risk populations and geographic areas – including waste prevention education;
 - Develop a comprehensive program to reduce the use of hazardous products and generation of hazardous wastes;
 - Engage manufacturers and retailers to assist with educational efforts and to modify the HHW content of their products;
 - Provide grants, technical support, and other incentives to local governments to facilitate implementation of their HHW plans and support their collection programs; and
 - Explore lower-cost options for integrating HHW collection with municipal solid waste collection (e.g., lockers at transfer stations).
- **Stakeholders did not want the following options** included in the plan:
 - Limit DEQ collection events exclusively to high-hazard materials in high-risk locations;
 - Limit the facility reimbursement program to out-of-area wastes that are high-hazard only;
 - Increase the use of the statewide hotline through better promotion; and
 - Focus educational efforts on proper disposal and locations – less emphasis on prevention and reduction.
- Stakeholders **did not want to limit HHW events or collection opportunities.**
- Options preferred by stakeholders responding via email include:
 - Provide local governments with specialized technical assistance to support local education and outreach efforts.

- Apply the principles of community-based social marketing to develop a comprehensive program to reduce the use of hazardous products and generation of hazardous wastes.
- Provide grants, technical support, and other incentives to local governments to facilitate implementation of their HHW plans and to provide support for their collection programs.
- Provide grants for collection trucks or other options to serve outlying areas.
- Explore lower-cost options for integrating HHW collection with municipal solid waste collection – e.g., lockers at transfer stations.

Attachment A
June 7th Stakeholder Meeting
Meeting Notes and Stakeholder Comments

The purpose of the stakeholder meeting was to present and receive feedback from stakeholders on: the results from the on-line stakeholder survey, the 2005 HHW Plan process, the 1999 HHW Plan assessment, and the potential 2005 HHW Plan goals, scenarios, and menu of options.

Abby Boudouris welcomed the group of nearly 20 stakeholders, many of whom were from the Willamette Valley area. After stakeholder introductions, Marc Daudon presented DEQ's work shaping the 2005 HHW Plan and facilitated stakeholder questions and discussion.

The following stakeholders attended the meeting:

| | |
|-----------------------------------|--------------------------------|
| David Allaway, DEQ* | Scott Klag, Metro |
| Bob Barrows, DEQ | Leslie Kochan, DEQ |
| Jeff Bickford, Marion County | Dean Large, Waste Connections |
| Gordon Brown, Benton County | Bruce Lumper, DEQ* |
| Abby Boudouris, DEQ* | Tom Manton, Douglas County |
| Maggie Conley, DEQ* | Sheri Matheson, Yamhill County |
| Cathie Davidson, DEQ | John McEvoy, Linn County |
| Pamela Dawelek, Waste Connections | Loretta Pickerell, DEQ* |
| Sean DeHan, MSE Environmental | Joe Powell, Douglas County |
| Carol Dion, Allied Waste | Jim Solvedt, Polk County |
| Brian Fuller, DEQ | Rick Volpel, DEQ* |
| Larry Gibbs, Lane County | Jan Whitworth, DEQ* |

(*DEQ employees that did not participate in the plan goal and scenario voting exercises.)

1. Comments from Presentation

Stakeholder Survey Results

- Just under one third of the meeting attendees completed the online survey in February.
- How did DEQ define product stewardship in the survey? One stakeholder suggested that many people have different definitions for product stewardship. Another stakeholder said that it is common sense and that product stewardship resonates with people – in general, he said that people know what it means.
- Concern over the low number of survey respondents – also concerned about the representation in the room – largely Willamette Valley folks.
- Still working on educating people not to burn their garbage – how can we convince them to handle HHW properly?
- Rural communities do not have resources to cover a comprehensive program – they are spread thin and education in its current form is lacking. Once facilities or more collection opportunities are available – communities may be better equipped to tackle waste prevention and education.
- Education part is the tough part – getting people to change their buying habits is difficult – putting out brochures doesn't work. Offering service to dispose of HHW is easier than launching an education campaign.

- Are collection events successful? One stakeholder asked if there were limited or no collection events – would the public store their HHW to wait for a collection event or would they throw it in the garbage.
- People do not want to stockpile HHW and wait for an event – they need to get rid of it immediately. Another person commented that getting rid of HHW is an impulse – without facilities that are accessible, this will be a problem.
- Have there been studies on environmental justice or studies to determine how income and collection service are related? (Answer is no). One stakeholder said that traditionally, better educated people tend to use program. He doesn't think there is less awareness among different socioeconomic classes – he thinks lower economic classes also have an awareness of HHW and see the need to dispose of it properly.
- Clarification that we do not know if we are meeting needs of customers.
- Clarification that Lane, Metro, Marion, Wasco, Hood River facilities will also have collection events.
- Will the plan include numbers of people who attend events? One stakeholder thought it will be useful to compile collection event information. Abby explained that there is no total for event participation or materials collected on a state level (other than DEQ-funded events).
- Are there any quantity data for HHW that is being used and stored in homes? David explained that good sales data is difficult to obtain. He said that the state's best HHW program, Metro, has participation rates around 5% of the population - this is county with "best" service. Programs are not capturing HHW out there – large majority is going unmanaged.
- Are participation rates flat, decreasing, or increasing as you add events? Metro: participation seems to be constantly rising – as they provide collection, people use the service. Metro hasn't seen a drop-off in participation and has been looking at whether or not they are accommodating disposal, rather than prevention, because collection/disposal has been so convenient for residents. Maggie said that participation at state collection events is increasing and that in some cases volume of material collected are increasing as well.
- What are waste composition studies finding in terms of HHW? DEQ: the portion of the total waste stream that is HHW is very small and the data do not capture any of the materials that leave their containers. David says data is not particularly useful.

Defining DEQ Customers, Partners, and Stakeholders

- How are we determining what the needs of the customers are?
- Definitions make sense in terms of HHW as a subset of solid waste management because local governments are responsible for collection.
- Looking at the end of pipe management is local governments' responsibility – but local government shouldn't provide everything. Metro is not assuming it's their responsibility to deal with *all* collection. How does stewardship fit into this model?
- From a customer standpoint – it's a social responsibility. Need to educate children through education campaigns in schools. DEQ is not going to reach all residents by advertising in the newspaper. The best way to reach people is through HHW education in schools. Metro has an education campaign for schools.

Core Activities

- Basic education should be expanded - just distributing brochures will not work. Greater need for more education effort – more emphasis on teaching children.
- In terms of gathering information on program needs and performance – Metro looked at trying to do this and it was very difficult. Encourage DEQ to look at what other

groups/governments have done to collect this information and not to spend a lot of resources on this activity. The activity “continue to assist governments assume responsibility” could be reworded. As it is written, the activity sounds like local government takes full responsibility for HHW. Language should be crafted in terms of local governments assuming a share of the responsibility.

Scenario 1: High Risk Focus

- Confusion about how money is allocated to local governments in this scenario and the core activities. Abby explained that DEQ wants to continue the grant program.
- Will DEQ be able to shift funds if more than one community wants a plan or facility in one year?
- Would some of these high risk resources go to legislative action or a regulatory scenario approach?

Scenario 2: Waste Prevention First

- Is the budget adequate for this scenario? Abby said that she is unsure; however and pointed out that education and outreach may take different forms than a media campaign. David said that \$600,000 is not enough to solve HHW problems through education, but it's also not enough money to solve the problems only through collection.
- Some activities are more FTE intensive – promoting programs, transforming markets, adopting environmental preferable products. Suggestion to separate this scenario into two kinds of outreach: outreach to consumers and outreach to retailers/manufacturers. Even King County doesn't spend \$800,000 on behavior change. The scenario should clearly define that there is a product stewardship component, in addition to education.
- How would money be divided between local governments and DEQ? Abby said DEQ is not sure at this time and that funding allocation depends largely on the scenario chosen.
- Does the state hotline provide information on alternative products? Answer: only for Metro region; not for out of region calls.

Scenario 3: Basic Collection Service

- Question about what defines the basic level of collection – could be defined by every household has the opportunity to take materials to a certain place, within a certain distance, in a certain time period.
- Plan should continue to fund grants for collection events, plans, and facilities.

2. Dot Game Results

Stakeholders were each given 15 dots, 13 green and 2 red, to vote for their preferred plan goal, scenario, and menu of options. In some cases, stakeholders did not vote or voted twice for the same goal or scenario.

Plan Goal

Stakeholders each had three green dots to select their top three choices for the plan goal. The top three goals (in order) were:

- 1) Reduce Generation of HHW waste and associated risks;
- 2) Ensure provision of HHW collection and education services to address the highest risks; and
- 3) Maintain and strengthen partnerships with local governments.

| Plan Goal | 1 | 2 | 3 |
|--|---|---|---|
| Reduce generation of HHW waste and associated risks. | 8 | | |
| Ensure provision of HHW collection and education services to address the highest risks (materials, populations, environments). | 4 | 3 | 3 |
| Provide services in an efficient and cost-effective manner while maintaining high quality standards. | 1 | 5 | |
| Ensure minimum service levels for collecting HHW & educating customers. | 1 | 2 | 5 |
| Engage manufacturers and retailers in HHW prevention & management. | | 4 | 2 |
| Maintain and strengthen partnerships with local governments. | 4 | 1 | 3 |

Plan Goal - Discussion

- Need to weight the responses.
- How good will the “bang for the buck” be if the plan goal is engaging manufacturers and retailers?
- Goals are worded differently; some seem to be goals, while others are strategies or methods to reach the goal.

Plan Scenario

Stakeholders each had four green dots to rank the scenarios (A = first choice, D = last choice) that they wanted to be included in the plan. At the end of the meeting stakeholders were given one red dot to choose the scenario they liked the most (represented in the following table by numbers in parentheses).

- No clear consensus on the preferred plan scenario; although Status Quo seemed to be most stakeholder’s last choice.
- When given only once choice, more stakeholders chose Waste Prevention First as their first choice. However, when stakeholders ranked the scenarios, more people chose Waste Prevention First as their fourth choice than High Risk or Basic Collection.

| Scenario | A | B | C | D |
|---|-------|---|---|---|
| (1) High Risk Focus. Focus HHW programs on those materials and situations that represent the highest risk to human health and the environment. | 8 (5) | 5 | 4 | 2 |
| (2) Waste Prevention First. DEQ funds education, promotion, and product stewardship activities designed to achieve behavior and market change. | 9 (7) | 5 | 4 | 5 |
| (3) Basic Collection Service. DEQ determines acceptable minimum service levels and provides needs-based support for local governments and allocation of DEQ HHW collection events. | 5 (3) | 6 | 3 | 3 |
| (4) Status Quo/Baseline. DEQ focuses on meeting the request of local governments for collection events, grants, and technical assistance. Services are based on local government demand. | 2 | 3 | 4 | 8 |

Plan Scenario - Discussion

- Need to have some type of collection if education does not work out.
- Would like a hybrid scenario of high risk and waste prevention (one person said this and others nodded their heads).
- A two-tiered approach would be useful, depending on the existing opportunities in the community. The plan should include more assistance for continuing operational expenses.
- Waste prevention is a logical strategy, however, without convenient and stable disposal alternatives for HHW materials – it won't be a successful strategy. Go for waste prevention in counties with facilities and focus on basic services for other counties.
- One stakeholder said he put one dot on collection and one on high risk. He said if there is a high risk and no existing collection, then either DEQ or the local government will provide collection.
- The high risk scenario may be arbitrary and confusing for many Oregonians.
- More emphasis should be placed on product stewardship and less on behavior modification.
- DEQ should pay attention to high risk problems and effective ways to reduce those risks.
- Another stakeholder said he thinks the High Risk Focus should be the top priority, and gave Waste Prevention the second priority because education and product stewardship initiatives are a long process and in the short-term we need to focus on high risk hazardous waste.
- Scenario 3 and 4 lack the focus necessary for the program to effectively support achievement of DEQ's Priority 3: protecting human health and the environment from toxics.
- Plan should maybe be a composition of these scenarios because finite funding cannot solve all of the problems – need to have some type of baseline service to address needs. Education/outreach is a much longer timeframe – benefit of collection event is immediate (waste contractor comment).
- How does high risk get determined? What if someone brings in non high risk material to a collection event? Do you not take it? This would be difficult to explain to a customer.

Abby explained that DEQ would look at population, environment, and materials to determine risk. The stakeholder said that DEQ will likely find that they cannot determine high risk or that there are only a few high risk areas and questioned if the priority assessment was an efficient use of resources.

- David: Over the next five years DEQ will spend 2 million supporting collection. DEQ still collects latex paint at almost all events and in many circumstances it is not hazardous. Current program marginally reflects risks. David suggests that right now the HHW program makes decisions based on risks. If DEQ can improve the HHW program (achieve 10% improvement) by reducing the hazard per dollar spent, it would be like adding 10% to budget. David thinks they could do better, closer to 20% or 30% improvement, which would be like adding \$400,000 or \$500,000 to the budget. This justifies spending \$50,000 on the priority assessment.
- Are we looking at acute pesticide issues or long-term chronic exposures – how will DEQ measure human health risks? David: DEQ will not be able to measure risk directly, that would be much too complicated; however, DEQ can use tools developed that allow for relative evaluation of relative impacts of certain wastes. Even if it's not a precise risk calculation, DEQ may be able to determine generally where money would be most effective.
- It is important to develop services in certain parts of the state; however, communities are looking at the state's role and want to know what can DEQ do that will be helpful to our area? For metro – the state's involvement in waste prevention would help the most and provide the best return. Metro is looking at how DEQ's direction could help Metro reduce their costs and thinks that other counties will look towards Metro for the same. Sees a lot of leverage around waste prevention.
- Counties with collection process in place will have much different priorities than counties without permanent collection facilities. Abby explained that DEQ is trying to determine how to serve all communities or how to make decisions on which communities to serve; she said this is one of the questions DEQ is asking stakeholders.

Menu of Options

Stakeholders were each given six green dots and two red dots to choose their most preferred options. Stakeholders used red dots to signify options that they did *not* want included in the plan. The options that stakeholders preferred the most include:

- Fund local plans that target high-risk hot spots and the management of high-hazard materials;
- Target education and outreach to high-hazard materials and high-risk populations and geographic areas – including waste prevention education;
- Develop a comprehensive program to reduce the use of hazardous products and generation of hazardous wastes;
- Engage manufacturers and retailers to assist with educational efforts and to modify the HHW content of their products;
- Provide grants, technical support, and other incentives to local governments to facilitate implementation of their HHW plans and support their collection programs; and
- Explore lower-cost options for integrating HHW collection with municipal solid waste collection (e.g., lockers at transfer stations).

Options that stakeholders expressed the most reservations about include:

- Limit DEQ collection events exclusively to high-hazard materials in high-risk locations;
- Limit the facility reimbursement program to out-of-area wastes that are high-hazard only;
- Increase the use of the statewide hotline through better promotion (although the hotline was clearly not well understood by many stakeholders); and
- Focus educational efforts on proper disposal and locations – less emphasis on prevention and reduction.

In the following tables, numbers in parentheses represent options that stakeholders expressed opposition to (red dots).

Scenario 1: High Risk Focus – Menu of Options

| Potential Options | |
|---|-----|
| 1. Conduct a study to establish funding and program priorities based on relative risks to human health and the environment, considering such factors as material toxicity, vulnerable & highly exposed populations, sensitive ecosystems, routes of exposure, and geographic areas. | 2 |
| 2. Fund local plans that target high-risk hot spots and the management of high-hazard materials. | 10 |
| 3. Fund facilities that collect high-hazard materials from geographic hot spots. | 0 |
| 4. Limit DEQ collection events exclusively to high-hazard materials in high-risk locations | (6) |
| 5. Purchase and distribute lockers to collect high-hazard materials in remote locations. | (1) |
| 6. Limit the facility reimbursement program to out-of-area wastes that are high-hazard only. | (5) |
| 7. Expand the mercury collection program. | 2 |
| 8. Target education and outreach to high-hazard materials and high-risk populations and geographic areas – including waste prevention education. | 8 |
| 9. Continue or expand product stewardship initiatives that focus on high-hazard materials (e.g., mercury). | 7 |

Scenario 2: Waste Prevention First – Menu of Options

| Potential Options | |
|--|-------|
| 1. Apply the principles of community-based social marketing to develop a comprehensive program to reduce the use of hazardous products and generation of hazardous wastes. | 10 |
| 2. Provide local governments with specialized technical assistance to support local education and outreach efforts. | 6 |
| 3. Increase use of the statewide hotline through better promotion. | (3) |
| 4. Engage manufacturers and retailers to assist with educational efforts and to modify the HHW content of their products. | 8 (1) |
| 5. Evaluate effectiveness of educational programs and modifies efforts as needed by conducting surveys of household awareness & behavior. | 3 |

Scenario 3: Basic Collection – Menu of Options

| Potential Options | |
|---|-------|
| 1. Establish need-based criteria for selecting DEQ collection events, including frequency provisions, convenience, materials to cover, and population served. | 4 |
| 2. Provide grants, technical support, and other incentives to local governments to facilitate implementation of their HHW plans and to provide support for their collection programs. | 8 |
| 3. Facilitate intergovernmental agreements for HHW disposal. | 3 (1) |
| 4. Provide limited reimbursements for accepting out-of-area wastes. | 6 |
| 5. Modify state contract to help provide cost-effective contractor support for permanent local collection facilities | 2 |
| 6. Focus educational efforts on proper disposal, locations, etc. (how-to); less emphasis on prevention/reduction in use. | (3) |
| 7. Engage manufacturers and retailers to help support collection services, including take-back programs and other retailer-based initiatives. | 6 (1) |
| 8. Explore lower-cost options for integrating HHW collection with municipal solid waste collection – e.g., lockers at transfer stations. | 8 |

Menu of Options – Discussion

- The hotline is a great reference tool.
- People may be less likely to use the phone than a website to obtain HHW information.
Scott said that the Metro hotline receives over 100,000 calls per year. A lot of people use the web, including small businesses - they prefer using the web to the hotline. For residents, having a service 6 days per week with a live person at the other end is valuable. Metro watches the hotline information closely – think they are offering a high quality service.
- Need to get manufacturers and retailers invested in the management of wastes they produce and sell.
- Disposal bans should be included in these strategies and should be drivers of the HHW program.
- Limited reimbursements for out-of-area waste sounds like a recipe for having local elected officials opposing service to neighboring jurisdictions.
- Stakeholders don't like the word limit and do not want to limit collection. If paint or similar materials are not allowed at collection events, then the public will be discouraged from bringing in smaller amounts of more toxic materials. This is why one stakeholder does not want to limit collection. If people cannot bring in latex paint it may limit participation at collection events.
- What materials are considered high risk – pesticides and mercury? What materials are excluded from high risk?
- If DEQ cannot quantify risk then HHW collection should not be limited.
- Collection events should not be limited because people will illegally dump where there are no collection events.
- Need to account for people moving around the state. People need to be able to identify risks from use, storage, and disposal of HHW – DEQ should focus on education rather than disposal.
- Target HHW – separate out other materials such as agricultural waste.

Attachment B
June 7th Stakeholder Meeting
Stakeholder Comments Via Email

Stakeholders who did not attend the June 7th meeting in Salem were sent a brief survey by email to obtain feedback on their preference for the plan goal, scenario, and menu of options. The following stakeholders provided feedback via email:

John Beane, Coos County
 Susan Christensen, DEQ
 Scott Fairley, DEQ
 Shari Harris-Dunning, DEQ
 Mike House, Klamath Regional Disposal

Lucie La Bonte, Curry County
 Terri Peterson, Douglas County
 Mike Riley, Non-profit
 Timm Schimke, Deschutes County
 Cheryl Westgaard, Coos County

Stakeholders were asked which of the four plan scenarios they preferred – “A” representing the most preferred scenario and “D” representing the least preferred scenario.

| Scenario | A | B | C | D |
|---|---|---|---|---|
| (1) High Risk Focus. Focus HHW programs on those materials and situations that represent the highest risk to human health and the environment. | 2 | 3 | 2 | 3 |
| (2) Waste Prevention First. DEQ funds education, promotion, and product stewardship activities designed to achieve behavior and market change. | 4 | 3 | 3 | |
| (3) Basic Collection Service. DEQ determines acceptable minimum service levels and provides needs-based support for local governments and allocation of DEQ HHW collection events. | 4 | 3 | 2 | |
| (4) Status Quo/Baseline. DEQ focuses on meeting the request of local governments for collection events, grants, and technical assistance. Services are based on local government demand. | 1 | 1 | 2 | 7 |

Stakeholders were asked to choose options under each scenario that they preferred (in black) and options to which they were opposed (in parenthesis). There was no limit to the number of options under each scenario that stakeholders could choose.

Scenario 1: High Risk Focus

| Potential Options | |
|---|-------|
| 1. Conduct a study to establish funding and program priorities based on relative risks to human health and the environment, considering such factors as material toxicity, vulnerable & highly exposed populations, sensitive ecosystems, routes of exposure, and geographic areas. | 2(2) |
| 2. Fund local plans that target high-risk hot spots and the management of high-hazard materials. | 5 (1) |
| 3. Fund facilities that collect high-hazard materials from geographic hot spots. | 3 (1) |
| 4. Limit DEQ collection events exclusively to high-hazard materials in high-risk locations | 1(4) |
| 5. Purchase and distribute lockers to collect high-hazard materials in remote locations. | 5 (1) |
| 6. Limit the facility reimbursement program to out-of-area wastes that are high-hazard only. | 2(3) |
| 7. Expand the mercury collection program. | 4 |
| 8. Target education and outreach to high-hazard materials and high-risk populations and geographic areas – including waste prevention education. | 4 (1) |
| 9. Continue or expand product stewardship initiatives that focus on high-hazard materials (e.g., mercury). | 6 |

Scenario 2: Waste Prevention First

| Potential Options | |
|--|-------|
| 1. Apply the principles of community-based social marketing to develop a comprehensive program to reduce the use of hazardous products and generation of hazardous wastes. | 7 |
| 2. Provide local governments with specialized technical assistance to support local education and outreach efforts. | 8 |
| 3. Increase use of the statewide hotline through better promotion. | 3 (2) |
| 4. Engage manufacturers and retailers to assist with educational efforts and to modify the HHW content of their products. | 5 |
| 5. Evaluate effectiveness of educational programs and modifies efforts as needed by conducting surveys of household awareness & behavior. | 5 |

Scenario 3: Basic Collection Service

| Potential Options | |
|---|-------|
| 1. Establish need-based criteria for selecting DEQ collection events, including frequency provisions, convenience, materials to cover, and population served. | 5 (1) |
| 2. Provide grants, technical support, and other incentives to local governments to facilitate implementation of their HHW plans and to provide support for their collection programs. | 7 |
| 3. Provide grants for collection trucks or other options to serve outlying areas. | 7 |
| 4. Facilitate intergovernmental agreements for HHW disposal. | 5 |
| 5. Provide limited reimbursements for accepting out-of-area wastes. | 2 (2) |
| 6. Modify state contract to help provide cost-effective contractor support for permanent local collection facilities | 4 (1) |
| 7. Focus educational efforts on proper disposal, locations, etc. (how-to); less emphasis on prevention/reduction in use. | 3 (1) |
| 8. Engage manufacturers and retailers to help support collection services, including take-back programs and other retailer-based initiatives. | 5 |
| 9. Explore lower-cost options for integrating HHW collection with municipal solid waste collection – e.g., lockers at transfer stations. | 7 |