

# Introduction and Background



1

---

# 1. Introduction and Background

The Local Hazardous Waste Management Program in King County (Program) was established in 1990 in response to a Washington State requirement that local jurisdictions develop plans for managing hazardous wastes generated by residents and in small quantities by businesses and institutions.<sup>1</sup> Local jurisdictions within King County collaborated to develop a regional hazardous waste plan that was adopted by King County and all the cities within King County in 1990.<sup>2</sup> The Program has been operating since 1991 to address hazardous materials and to protect the public and the environment from their effects.

## 1.1. The Intent of This Plan Update

This document updates the original 1990 Final Plan for the Local Hazardous Waste Management Program and the Program's 1997 Plan Update.<sup>3</sup> It builds on the components of those two documents and extends planning for the Program forward, taking advantage of nearly twenty years' experience addressing residential household hazardous waste (HHW) and hazardous wastes generated in small volumes by non-residential entities like businesses, schools, governments and other conditionally exempt small quantity generators (SQGs).

Realizing that it cannot succeed by trying to collect all hazardous waste "at the end of the pipe," that is, after it has been generated, the Program has revised its approach to managing hazardous waste. Hazardous chemicals, materials and components of products must be addressed, and hopefully eliminated, in the product's design and manufacturing stages, before the product becomes a waste. For this reason, some of the Program's focus has shifted "upstream," that is, to the design and manufacturing stages of the product's life, rather than focusing exclusively on end-of-life waste streams. The Plan Update documents these and other changes that have been made in the Program's philosophy and services since 1997 and describes future plans.

## 1.2. Rationale for a Plan Update

The Program is nearly twenty years old, and the last Plan Update was completed in 1997. Since then, changes have occurred in the populations served, the Program's goals, the nature of hazardous products and wastes, and the methods used to address them.

---

1 Revised Code of Washington (RCW) 70.105.220.

2 Solid Waste Interlocal Forum, *Local Hazardous Waste Management Plan for Seattle-King County: Final Plan and Environmental Impact Statement for the Management of Small Quantities of Hazardous Waste in the Seattle-King County Region & Appendices A & B*, (Seattle: LHWMP, November 1990). Cited hereafter as *1990 Final Plan*.

3 Local Hazardous Waste Management Program in King County, *Local Hazardous Waste Management Plan for King County: Final Plan*, (Seattle: LHWMP, May 1997). Cited hereafter as *1997 Plan Update*.

King County's significant growth and shifts in population have created inequities in hazardous wastes collection services, particularly in south and northeast King County. In addition, the Program must consider increasing services to the most vulnerable segments of the population, including children, infants and youth, pregnant women, and women of childbearing age. Historically underserved groups, such as the homebound, apartment dwellers, immigrant communities and those who use English as a second language, also need service. And finally, the Program must consider ways to better serve small businesses through the acceptance policies of collection facilities and services.

The Program's Plan should align more fully with the Washington State Department of Ecology's (Ecology) Beyond Waste Plan, the state's dual Hazardous Waste Management Plan and Solid Waste Management Plan.<sup>4</sup> The state's plan suggests working 'upstream' in the manufacturing cycle to reduce the toxicity of products. It also proposes reducing public and environmental exposures to toxic materials, specifically the exposure of vulnerable and historically underserved populations. In addition, Ecology recommends that local programs update their plans every five years.

The hazardous wastes, materials and products addressed by the Program are becoming more numerous and complex. New residential products and business components are introduced into the market place and manufacturing arena every day. Reformulations of existing products and chemicals, new combinations of chemicals, and the renaming and re-branding of products and chemicals take place constantly. And finally, new data about the toxicity of products and chemicals become available on an ongoing basis. For these reasons, programs that address hazardous wastes must be dynamic and responsive. Methods used to understand the properties of materials, as well as the populations that use them, must improve over time. For example, providing information to undocumented workers who are fearful of government personnel requires innovative approaches. Addressing and overcoming these barriers improves the Program's communication skills and adds to its repertoire for addressing challenges in other areas and with other segments of the population.

In summary, this 2010 Plan Update will capture what has been learned since the last Update and will describe the work that is currently under way. Most importantly, it will move the Program into the future with new ideas about how to best address chemical hazards and their impacts on human health and the environment.

---

4 Washington State Department of Ecology, *Beyond Waste: Summary of the Washington State Hazardous Waste Management Plan and Solid Waste Management Plan*, (Olympia: Washington Department of Ecology, November 2004 (publication number 04-07-022)). Cited hereafter as the *2004 Beyond Waste Plan*. This plan and updated information may be found on-line at [www.ecy.wa.gov/beyondwaste](http://www.ecy.wa.gov/beyondwaste)

## 1.3. Program History, 1990-1997

### 1.3.1. 1990 Local Hazardous Waste Management Plan

The original Local Hazardous Waste Management Plan was prepared in the late 1980s to respond to the growing need to address household hazardous waste. Local elected officials and community leaders worked with the Washington State Legislature to develop legislation allowing local jurisdictions to develop moderate risk plans.<sup>5</sup>

During the 1980s, King County, the City of Seattle, the Municipality of Metropolitan Seattle (METRO), the Public Health Department and various suburban cities had worked together on various projects involving household and small business hazardous wastes. These included a series of single-day collection events, called Household Hazardous Waste Round-Ups, and a Waste Information Network that provided disposal and regulatory information to businesses.

The original Program Plan, adopted in November 1990, went into effect in 1991 as financing and organizational structures were developed. The original mission was "...to protect the environment and public health from the adverse effects of improper handling and disposal of HHW and SQG hazardous wastes."<sup>6</sup>

The Plan set nine goals focused on the following: reducing the generation of hazardous waste and its input to municipal waste streams; reducing worker exposure; promoting recycling; and addressing the issue comprehensively—that is, all areas of the county, all waste streams, and targeted audiences. Several of the goals addressed Program implementation. These emphasized education over enforcement and fostered an ethic of personal responsibility and flexibility in allowing for changes in the legal and planning environment. Finally, the goals emphasized the importance of involving all relevant parties in the development and implementation of the Plan and noted that implementation must recognize the unique capabilities and limitations of different governments.<sup>7</sup>

The original Plan proposed an ambitious increase in services to achieve large reductions in the quantities of hazardous waste disposed in the municipal waste stream within a twenty-year period. It proposed building an extensive infrastructure to collect HHW, and it called for technical assistance to small businesses. While many of the proposed services were implemented, the collection infrastructure did not develop as originally envisioned. It was determined to be unrealistic and unsustainable, as were the original targets and assumptions about the effectiveness of educating residents and businesses to stop generating hazardous waste.

---

<sup>5</sup> RCW 70.105.220.

<sup>6</sup> 1990 Final Plan, p. 1-4.

<sup>7</sup> 1990 Final Plan, p. 1-6.

The 1990 Plan provided clear guidance about HHW collection services, public HHW education, ways to reduce generation of hazardous wastes, technical assistance to SQG businesses, SQG waste collection, and program evaluation. Those components provided the structure for implementation of the Plan throughout the 1990s.

### 1.3.2. Used Oil Collection Program

In 1991, local hazardous waste plans were required by state law to address used motor oil by July 1993.<sup>8</sup> In 1991, the City of Seattle established, promoted and paid for oil collection tanks at ten retail locations. After analyzing used oil collection efforts, the Program began developing and promoting new collection sites in 1992. Promotional efforts included providing used oil collection containers to Wastemobile customers and running radio and television advertisements. By 1996, the number of sites had almost doubled, from 84 sites in 1993 to 155 sites. Between 1991 and the end of 1996, these sites collected more than 1,650,000 gallons of used motor oil.

### 1.3.3. 1997 Hazardous Waste Management Plan Update

In 1997, the Program conducted an assessment of its activities, reviewed the external situation regarding waste management, and looked at funding realities. While the Program mission didn't change, the nine original goals were consolidated to six general goals that articulated waste management priorities, in the following order: waste reduction; recycling; physical, chemical, and biological treatment; incineration; solidification or stabilization; and landfilling. The goals also urged continual improvements in the efficiency and effectiveness of the Program in accomplishing the Plan's mission.

The 1997 document stressed the importance of being responsive to the public, and it encouraged cooperation and coordination among government entities, citizens and businesses. Finally, the document affirmed the importance of fostering a sense of responsibility among those who produce, sell and use hazardous products.<sup>9</sup>

While the 1997 Plan Update did not make significant changes to the Program, it did consolidate services and provide a more robust framework for evaluation. The document notes: "No immediate, significant changes in service, program emphasis, administration, or funding are suggested or appear warranted. Consequently, the Plan recommends continuation of the wide range of HHW and SQG programs now conducted by the LHWMP – with a commitment to enhancing and improving the LHWMP each year."<sup>10</sup>

<sup>8</sup> RCW 70.105.221 and 70.951.020.

<sup>9</sup> 1997 Plan Update, p. 4-7.

<sup>10</sup> 1997 Plan Update, p. 5-43.

Several recommendations for expanding existing activities and adding new ones were included in the 1997 Update. The Update recommended greater efforts to involve the private sector in HHW and SQG hazardous waste management. It also recommended researching and implementing strategies to increase the exchange—as opposed to the disposal—of usable hazardous household products. Other recommendations included refining policies governing HHW acceptance and management, identifying underserved groups, and taking actions to improve service use by these groups. Finally, the Update called for tracking, monitoring, evaluating, and reporting the progress of Program activities.<sup>11</sup>

The 1997 Plan Update affirmed the Program's role in promoting used oil collection. It specified that Seattle Public Utilities and the Suburban Cities should "...operate sites for the collection of used motor oil to supplement private sector used oil collection sites where necessary to increase service and convenience to residents."<sup>12</sup> It noted that the City of Seattle received the largest quantities of used oil of any public collection site in the country.<sup>13</sup>

## 1.4. Program Changes, 1997 - 2009

Between 1997 and 2009, the Program conducted a number of studies to evaluate its direction and effectiveness. The studies looked at the Program's mission and goals and at the effectiveness and equity of the Program's collection and non-collection services. One of the studies was a Program-wide review of services and performance during the period 1990 - 2000. The study<sup>14</sup> was conducted in 2000 - 2002 by the newly-created Office of the Program Administrator and resulted in programmatic and organizational changes.

Since 2002 the Program Administrator and senior staff have assessed individual projects and have reconfigured or eliminated some of them, when appropriate. Changes have been influenced by changing demographics, evaluation results, field experience, changes in scientific knowledge, and the direction set by the Washington State Beyond Waste Plan.<sup>15</sup> These changes are reflected in refinements of the Program's goals and strategic direction, as well as in adjustments to Program services.

---

11 1997 Plan Update, pp. 5-43-5-44.

12 Household Hazardous Waste Recommendation 13, 1997 Plan Update, p. 5-11.

13 1997 Plan Update, page 5-11.

14 Ken Armstrong and Liz Tennant, *Local Hazardous Waste Management Program in King County Component Review 1991-2000*, (Seattle: LHWMP, August, 2002).

15 See Ecology's 2004 *Beyond Waste Plan* at [www.ecy.wa.gov/beyondwaste](http://www.ecy.wa.gov/beyondwaste) for additional information about the direction set for reducing small volume toxics.

### 1.4.1. 2001 Strategic Planning Process

A 2001 strategic planning process resulted in a refined mission statement and goals, a new vision statement, and new guiding principles. The mission of the Program was rephrased to be more specific and moved from a focus on the improper handling and disposal of HHW and SQG wastes, to addressing the use, storage and disposal of hazardous materials.<sup>16</sup>

The six Program Goals developed in 1997 were refined in 2001 to articulate reductions hoped for in the following areas: hazardous chemical content of products; hazardous chemical use by residents and businesses; human and environmental exposure to the most problematic chemicals; and exposure of the most vulnerable groups to hazardous chemicals. Goals also focused on increasing partnerships with businesses, communities, non-governmental organizations (NGO's) and volunteers, and to providing optimal customer service.<sup>17</sup> A new vision statement aspired to have "citizens, businesses and government demand, use, and produce products that are the least harmful to human health and the environment."<sup>18</sup>

A new set of guiding principles<sup>19</sup> encouraged the Program to be a regional leader; foster an ethic of responsibility; provide equitable services, particularly to vulnerable and disadvantaged communities; and communicate in ways that would be accessible to all segments of the population.

The guiding principles also suggested that the Program use emerging technologies; focus on established priorities while being adaptive to community values, environmental and health indicators, and political priorities; be responsive and accountable to ratepayers;<sup>20</sup> use resources only for Program activities; and maintain a spirit of cooperation among Program Partners. The guiding principles emphasized on-going evaluation of the Program's performance, staff development, Program operating efficiency, and promotion of partnerships among government entities, NGOs, businesses and residents. Finally, the guiding principles urged the Program to work 'upstream' and to follow the hazardous waste management hierarchy, thus reducing the need to incinerate and landfill hazardous wastes.

### 1.4.2. 2006 Strategic Planning Process

A Program-wide strategic planning effort in 2006 refined the Program's vision, mission and goals and shifted the Program's emphasis to a broad spectrum of issues related to household and business hazardous products and wastes. The new approach emphasized the importance of shifting resources

---

<sup>16</sup> Management Coordination Committee, Local Hazardous Waste Management Program in King County, *Vision and Mission Statements, Guiding Principles and Strategic Goals*, adopted October 16, 2001; cited hereafter as *2001 Vision, Mission and Strategic Goals*. See the Mission Statement.

<sup>17</sup> *2001 Vision, Mission and Strategic Goals*, Goals 4 and 6.

<sup>18</sup> *2001 Vision, Mission and Strategic Goals*. See the updated Vision Statement.

<sup>19</sup> *2001 Vision, Mission and Strategic Goals*. See the new Guiding Principles.

<sup>20</sup> The Program's rates and ratepayers are described in Chapter 5 of this Plan Update.

from 'end of pipe' hazardous waste management to preventing pollution 'upstream,' at the source. One example would be addressing hazardous materials at the production stage, rather than at end-of-life wastes.<sup>21</sup>

The Program's six strategic goals were revised to more clearly reflect the focus on working 'upstream' to reduce the production of hazardous materials and products, facilitate the proper management of hazardous wastes, and be accountable to the public.<sup>22</sup> The vision statement was modified to reflect King County's aspiration to be the cleanest region in the country – one free of hazardous chemical exposure.<sup>23</sup>

The 2006 strategic planning process also prioritized materials, environmental areas, and vulnerable and historically-underserved populations. Multiple methods were used to prioritize hazardous materials, and these resulted in the Program's commitment to focus on the following: bisphenol-A, particularly in infant and baby products; lead; mercury; PBDEs (commonly known as flame retardants); pesticides; pharmaceuticals; and high-risk solvents.

The Program identified the contamination of ground and surface waters as critical environmental issues and prioritized wellhead protection zones, aquifer recharge areas, and non-residential (small business, or SQG) operations with onsite sewage treatment systems as high priority areas. To address storm and surface water, the Program focused on flood hazard zones.

Finally, the Program identified very young children (prenatal to age six), pregnant women, and women of childbearing age as particularly vulnerable populations and decided to increase services to residents of government-subsidized housing facilities, new immigrants, and businesses with a high percentage of English-as-a-second-language workers.

## 1.5. Collection Services, 1997 - 2009

In 1997, the Program had two permanent household hazardous waste collection facilities serving Seattle and nearby residents and a mobile collection facility, called the Wastemobile, that traveled throughout King County to serve residents of suburban cities and unincorporated areas. Suburban cities also held special events to collect specific hazardous wastes and promoted private sector recycling of targeted wastes.

---

21 The new emphasis is captured in the revised Mission Statement, which was formulated and approved by the Management Coordination Committee in March, 2006.

22 The Strategic Goals were formulated and approved by the Management Coordination Committee in March, 2006.

23 The Vision Statement was approved by the Management Coordination Committee in March, 2006.

### 1.5.1. Expansion of Collection Services, 2000-2006

The 1997 Plan Update called for an examination of “HHW collection service levels, needs and preferences in the suburban cities and unincorporated King County, and... the feasibility of enhancing service where deficiencies are identified.”<sup>24</sup> It also called for examination of “the feasibility of assisting residents who are unable to deliver their HHW to a collection facility.”<sup>25</sup> An analysis of HHW Services, completed in 2000, found that residents living in south and east King County did not have the same access to collection services as did Seattle residents. It recommended operating a fixed hazardous waste collection facility at the Factoria transfer station, near Bellevue, on a pilot basis and providing enhanced Wastemobile service in South King County.<sup>26</sup> The Program also concluded that it should start to collect HHW from homebound residents.

The Program started to collect HHW from homebound residents in 2001 and began offering enhanced Wastemobile service through pilot projects in Federal Way and Kent. The Program established a new HHW collection facility at the Factoria Transfer Station in late 2002 and made efforts to find the most efficient Wastemobile service for residents of Federal Way and Kent.<sup>27</sup> By 2006, the Factoria facility proved so popular that services were expanded from four to six days per week.

### 1.5.2. Collection Services, 2006-2009

The 2006 Strategic Planning process called for an assessment of HHW collection services and a projection of the region’s future needs.<sup>28</sup> A 2007-08 study evaluated the amount and type of collection services (fixed, mobile and homebound), ways to increase HHW collection in multi-family residences, and whether to operate collection services on a pilot basis in low-income and ethnic communities in Seattle and King County.<sup>29</sup> The study concluded that residents of south King County lacked equal access to the Program’s collection services and recommended offering Wastemobile collection service three days a week at the Auburn SuperMall on a two-year pilot basis. Bimonthly collection service (three days per week) began at the Auburn SuperMall in July 2009.<sup>30</sup>

---

24 1997 Plan Update, pp. 5-13.

25 1997 Plan Update, pp. 5-16 and 5-17.

26 Local Hazardous Waste Management Program in King County, Memo from Phase II Household Hazardous Waste Service Level Study Group, to The Management Coordinating Committee, subject: “Preliminary Findings and Recommendations Regarding Adjustments to Household Hazardous [Waste] Collection Services,” July 3, 2000, (Seattle, WA: LHWMP, July 2000).

27 King County Solid Waste Division, *Evaluation of Service Level Enhancements in South King County*, February 2004, describes and assesses these efforts.

28 Household Hazardous Waste (HHW) is hazardous waste that is generated by individuals or household, rather than by businesses or institutions. Many consumer products contain hazardous materials and must be disposed of as HHW.

29 The Work Group’s findings and recommendations can be found in Liz Tennant et. al., *2007-2008 Household Hazardous Waste Service Level Report* (Seattle, WA: LHWMP, February, 2010), contained in Appendix D of this Plan Update.

30 The Auburn SuperMall Wastemobile currently is open two full weekends per month, not every weekend. This is the only way that the Program could afford to offer the expanded services without a fee increase.

Other service changes have been made to increase customer service. These include longer hours at the Seattle collection facilities and other scheduling and acceptance policy changes, such as dropping the need for an appointment at one facility.

### 1.5.3. Latex Paint Collection

Historically, lead and mercury were added to latex paint to enhance its durability and performance. In 1977 the U.S. Environmental Protection Agency banned the addition of lead to paint; the addition of mercury was banned in 1992. After periodic testing of latex paint brought to HHW collection facilities, Public Health—Seattle & King County determined in 2006 that latex paint no longer designated as dangerous waste under WAC 173-303 and that solidified latex paint was acceptable for landfill disposal.<sup>31</sup>

In 2006, the Program decided to discontinue collecting latex paint at the HHW facilities based on evidence that it no longer designates as hazardous waste. The Program phased out acceptance of latex paint at HHW collection facilities during 2008 and early 2009. This decision significantly reduced Program waste disposal costs. Discontinuing the collection of latex paint also led to sharp decreases in customers and tonnage at the Wastemobile and the Factoria collection facility in 2008. As of mid-2009, there appeared to be less of an impact at the North and South Seattle HHW collection facilities.

### 1.5.4. SQG Waste Collection

During 2005, discussions were renewed about whether there was a need for more hazardous waste collection options for businesses that generate very small amounts of hazardous waste. This was driven by concerns that many businesses generate wastes in quantities too small to make commercial collection economically viable, and other affordable disposal options were limited. Also, other programs across the country provided SQG waste collection services, and there were concerns about whether our Program was providing enough services to businesses to justify the amount being charged to them. An SQG Disposal Study Work Group was formed in 2006 to address these concerns. The SQG Disposal Work Group concluded that there was a need to increase SQG disposal options and recommended a menu of strategies: accept SQG wastes at the HHW collection facilities on a pilot basis; promote product stewardship, especially for fluorescent lamps; and explore alternative approaches with private companies.<sup>32</sup>

In early 2008, a one-year pilot project to accept SQG wastes was initiated at several HHW collection facilities. These facilities accepted SQG wastes in the same quantities, container sizes and waste types as for HHW customers. There was no user fee as long as the business completed a survey form. Enough data were gathered to conclude that the service was useful to businesses and should

---

31 Keiko Ii, *Latex Paint Waste Characterization*, (Seattle: Public Health – Seattle & King County, July 25, 2006).

32 Liz Tennant and Alexandra Thompson, *Small Quantity Generator Disposal Work Group Report* (Seattle, WA: LHWMP, April 2007), contained in Appendix E of this Plan Update.

continue. In late 2008, the SQG disposal pilot project was extended for another year and expanded to include the North Seattle HHW collection facility.

### **1.5.5. Used Motor Oil**

Used motor oil is collected at a variety of locations including the HHW collection sites, the Wastemobile, repair shops, oil change businesses, and suburban city collection events. While the number of collection sites has fluctuated during the period 1997 - 2009, there are currently 86 sites. Consolidation in the auto supply sector has led to the closure of many collection sites, and an increasing number of residents use oil change businesses rather than changing oil themselves. The Program promotes the used oil collection sites through a printed brochure and on its Web site. Between 1997 and 2008, an estimated 3,632,363 gallons of used oil were collected through the private sector in King County.

## **1.6. Services for Vulnerable and Historically Underserved Groups**

While continuing to provide its core services to the general public, the Program is working to prevent the exposure of vulnerable and historically underserved residents to hazardous materials and products. The Program also is working to prevent the production of particularly hazardous products, and, as described below, is working to provide better outreach to vulnerable and historically underserved groups.

### **1.6.1. Vulnerable Groups**

Studies show that exposure to toxic substances poses a greater risk to children, particularly infants and young children. Pregnant women, and women of childbearing age, are also vulnerable. For this reason the Program focuses on products and substances that could affect these populations.

An assessment of chemical exposures and their associated health risks to young children in child care facilities was conducted in 2006. Visits to 74 child care centers and 122 family homes found potential exposures to insecticides, pesticides, soft vinyl toys likely to contain phthalates, art supplies with volatile organic compounds, and household cleaners.<sup>33</sup> As a result of the study, the Young Children and the Healthy Schools projects began in 2007, focusing on the risks to young children and on reducing children's exposure to mercury, pesticides, and other high-risk materials, particularly in child care facilities and in schools.

The "Rehab the Lab" school cleanout project resulted in the removal and disposal of more than 39 tons

---

<sup>33</sup> For additional details see *Final Report, Child Care Assessment Data Analysis* by Alice I. Chapman, P. E. (Seattle: Local Hazardous Waste Management Program in King County, December 2007, Publication No. SQG-Childcare-1-(12/07)).

of hazardous chemicals, including nearly four tons of high-risk chemicals, from over 300 schools.<sup>34</sup> This included the stabilization and removal of 93 pounds of potentially explosive chemicals from 44 schools.<sup>35</sup> Other states have developed programs based on this approach.<sup>36</sup> In addition to clean-out efforts, the Program has worked with school administrators, teachers, and maintenance staff at more than 250 schools to reduce their use of toxic and hazardous materials and to safely store, use, and dispose of the chemicals kept by the schools. The Healthy Schools project builds on these efforts.

### 1.6.2. Historically Underserved Groups

According to the 2000 U.S. Census, more than a quarter of King County's population is minority or foreign-born and about four percent of the County's residents do not speak English well or at all.<sup>37</sup> The population has grown increasingly diverse since 2000, with south King County growing most in population and diversity. The Program has devoted resources to understanding the needs of immigrant and other historically-underserved communities and is working to improve services to them.

The 1997 Plan Update called for identifying groups within the Program's service area "that may be underserved, or less likely to be participating in HHW programs."<sup>38</sup> Using data, reports, and interviews with community leaders from minority, low income, English as a second language and other underserved groups, the Program has been working to identify the socio-cultural factors—that is, the beliefs, practices, habits, norms, customs, and rituals, as well as ease of access to chemicals and other experiences in their countries of origin—that might be influencing behavior regarding HHW.

Mobilizing the participation of new communities and achieving behavior change within underserved groups requires long-term commitment. It means first addressing the issues the community considers important, and it often requires conducting outreach activities in non-traditional venues—shops, sporting events, and places of worship. Some multicultural audiences, especially those who departed their place of origin as refugees, do not trust the government. The Program's 1999 Underserved Populations Workgroup Report recommended expanding activities to improve outreach to underserved groups.<sup>39</sup>

---

34 The Rehab the Lab project received the Washington Governor's Award for Pollution Prevention and Sustainability (2001), the "Outside the Box" Award from the Northwest Chapter of the North American Hazardous Materials Management Association (2003) and the U.S. Environmental Protection Agency's "Schools Chemical Cleanout Campaign Ward (with the Federal Way School District (2007). Dave Waddell, Rehab the Lab Project Director, Personal communication, August 13, 2009.

35 Dave Waddell, personal communication, August 18, 2009.

36 The following states have asked for guidance or provided Rehab the Lab Web site resources as tools for their state's schools: Florida, Idaho, Iowa, Kansas, Massachusetts, Missouri, Montana, Nebraska, Oregon, Vermont, and Washington State (outside of King County). Dave Waddell, personal communication, August 13, 2009.

37 U.S. Census Bureau, "2000 Census data for King County, Washington, DP-2, Profile of Selected Social Characteristics."

38 *1997 Plan Update*, p. 5-16, Recommendation 17.

39 Local Hazardous Waste Management Program in King County, *Underserved Populations Workgroup Report*, (Seattle: LHWMP, 1999).

### 1.6.3. Environmental Justice Activities

The Program's "Environmental Justice- Pass It On" project provided indoor air quality, household hazardous waste, environmental justice, and energy and water conservation training to residents in southeast Seattle in 1999-2000. A community-based "train the trainer" approach was used, and participants were encouraged to share information with others in their communities. This project led to additional assessments of environmental justice needs.<sup>40</sup>

During the period 2000 – 2006, the Program worked with community partners to identify the environmental health concerns of immigrant and refugee communities and to develop mechanisms for effectively providing information and services to them. An Environmental Justice needs assessment, conducted in the Vietnamese, Filipino, Samoan, Chinese, Somali, Ethiopian and Oromo communities, identified key environmental health concerns and helped the Program design and implement strategies to better address their needs. The needs assessment also strengthened relationships between the Program and these communities. For example, the Program sponsored a tour of Seattle's South Transfer Station and the adjoining Household Hazardous Waste collection facility for Chinese, Vietnamese, Samoan and Filipino residents and provided a tour of the Cedar River watershed for Samoan and Filipino community leaders.

In addition to conducting focus groups and surveys, the Project has partnered with a number of organizations including the International District Housing Alliance, White Center Jubilee Days, Pacifica, Refugee Women's Alliance, Community Coalition for Environmental Justice, Environmental Coalition of South Seattle, and others. These community-based partnerships were an integral part of the Program's environmental justice work, as reflected in the 2004 decision to change the project name from Environmental Justice Needs Assessment to Environmental Justice Network in Action "to reflect the network that we are trying to build and the actions that we wanted to see in communities having greater access to programs and services."<sup>41</sup>

Based on the Program's environmental justice work with underserved communities, the 2006 strategic planning process developed a new goal: "Reduce exposure of vulnerable and traditionally underserved populations to hazardous chemicals." A suite of projects was developed to implement this goal, and more staff and Program resources were allocated to achieving it. The Environmental Justice Network in Action, the Low Income Government Housing Project, the Nail Salon Project, and the Janitorial Project all address traditionally underserved workers and residents.<sup>42</sup>

---

40 For additional details see Michael Davis et. al, *2002-2003 Environmental Justice Needs Assessment Project Report*, (Seattle: LHWMP, Publication Number LHWMP\_ENVJustice\_1, 2004).

41 Michael Davis et al., *Environmental Justice Network in Action 2006 Annual Report*, (Seattle: LHWMP, Publication Number LHWMP\_ENVJUSTICE\_3, 2007), page 2.

42 These projects are described in more detail in Chapter 7 of this Plan Update.

## 1.7. Communications and Web Site

The increased use of computers and the Internet since 1997 has significant implications for communications strategies. A 1998 survey found that 47.4 percent of King County households used computers to communicate,<sup>43</sup> and computer use is even more widespread now.

The Program first began offering Web-based information in 1997. A revised Web site was launched in 2005. Since that time the Program has provided a large amount of information on its Web site. In 2008, the Program hired a dedicated Web developer who has redesigned and updated the Program's Web site, making it readily searchable and adding more information. The new Web site, [www.lhwmp.org](http://www.lhwmp.org), was launched in February 2010. The Web site strives to be user-friendly and easy to navigate. It provides a variety of information and publications for residents, businesses, schools and others to help reduce the use of toxic and hazardous materials and properly manage and dispose of them.

A variety of other outreach tools, such as trainings, classes, speakers, brochures, lesson plans, technical assistance visits and telephone hotlines, continue to be available to residents who do not use or have access to electronic communications.

## 1.8. Working 'Upstream'

During the period 1997 – 2005 the Program promoted private sector collection of selected waste streams, including motor oil and latex paint, and encouraged the private sector to offer safer products for consumer and commercial use. These efforts met with mixed success. For example, while the private sector has been willing to collect used motor oil, efforts to promote a take-back program for latex paint did not succeed.

The 2006 Strategic Plan recognized the importance of directing more resources towards preventing the use of hazardous materials in the manufacturing process and promoting "green chemistry" initiatives, as well as more protective policies. And the Plan explicitly acknowledged that product stewardship and producer responsibility systems were major components in the management of moderate risk waste.

## 1.9. Climate Change

Since the 1997 Plan Update was produced, and as the Program moved into the 21st century, a new global-scale threat emerged. That new threat is climate change. Significant scientific consensus

---

<sup>43</sup> Published Reports: Washington State Survey Selected Findings/Percent of Households with Personal Computers., [www.ofm.wa.gov/sps/1998/reports](http://www.ofm.wa.gov/sps/1998/reports). Accessed Nov. 16, 2009 <[www.ofm.wa.gov/sps/1998/reports/17pchaveit.pdf](http://www.ofm.wa.gov/sps/1998/reports/17pchaveit.pdf)>

has been reached that the current, most significant drivers of that change are anthropogenic, or human-induced.<sup>44</sup> That consensus focuses on human contributions of greenhouse gasses (GHG) to the atmosphere. Those gasses include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphurhexafluoride (SF<sub>6</sub>), as well as other exotic gasses.<sup>45</sup>

While our Program's mission is to address hazardous chemicals and wastes, and is not focused on addressing greenhouse gasses directly, there is some overlap with issues related to the use and management of the fluorinated chemicals mentioned above. In addition, many aspects of product stewardship can address GHG emissions. We must be cognizant of the issue of climate change in terms of Program choices that might exacerbate or ameliorate that change.

Those choices might include an additional screening of the hazardous chemicals that we already address, to focus particular attention, for example, on those products that contain hydrofluorocarbons or perfluorocarbons. Source reduction through a wide variety of product stewardship actions can help to reduce greenhouse gas emissions. Changes in manufacturing processes to minimize material inputs and toxic, or otherwise hazardous, ingredients use less energy in procuring, transporting and manufacturing products, as well as in handling the wastes generated at the end of a product's life.<sup>46</sup> We may need to look at additional best management practices with regard to current use and storage of hazardous substances to help reduce GHG emissions. We may also need to rethink some of the ways we dispose of hazardous wastes, such as incineration, neutralization or other treatment methods, which may have negative impacts to the climate. Reduction in transportation of wastes by either minimizing the wastes generated or by evaluating more local management options may help to reduce GHG emissions. Finally, at a staff management level, we may need to consider our transportation impacts, including encouraging telecommuting, vehicle usage reduction and the use of virtual meetings and training sessions.

## 1.10. 2010 Plan Update Process

The current Plan Update began in fall 2008, following a process similar to that used for the 1997 Plan Update. The new Plan Update will follow a similar approval process through the Program's Management Coordinating Committee (MCC), the King County Board of Health, and The Washington Department of Ecology. Although Ecology has stated that "The MCC is therefore the entity that Ecology would consider the 'responsible party' for plan update," the Program considers Board of Health approval important because the Board is a multi-jurisdictional body representing the ratepayers who fund the Program as well as the political jurisdictions for which the Program works.

44 R.K. Pachauri and A. Reisinger (Eds.), *Climate Change 2007: Synthesis Report -- Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, (Geneva, Switzerland: IPCC, 2007).

45 Pachauri and Reisinger, 2007, Chapter 2.1 Emissions of long-lived GHGs.

46 Product Stewardship Institute, *Product Stewardship and Global Warming – A PSI Fact Sheet*, (Boston: PSI, 2008).

And because the Board of Health sets the fees that fund the Program, the Board’s review of the Program’s 2010 Plan Update allows it to review and evaluate the Program’s work in relation to the sources and amounts of those fees.

Like the 1997 process, the current Plan Update has four phases: advertising the Plan Update and confirming the approval process; identifying the scope of the Plan Update; drafting the Plan Update document and soliciting public comments; and seeking review and approval of the Plan Update.

### 1.10.1. Advertising and Confirming the Update Process

A proposed approval process for the 2010 Plan Update was presented to organizations and entities that had specific interest in, were partners with, or had some level of jurisdiction over, the Program’s work. These included:

<ul style="list-style-type: none"> <li>• Municipal Solid Waste Management Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>• Municipal Water Pollution Abatement Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>• King County Unincorporated Area Councils</li> </ul>
<ul style="list-style-type: none"> <li>• commercial refuse haulers</li> </ul>	<ul style="list-style-type: none"> <li>• Muckleshoot Indian Tribe</li> </ul>	<ul style="list-style-type: none"> <li>• Snoqualmie Indian Tribe</li> </ul>
<ul style="list-style-type: none"> <li>• relevant nongovernmental organizations (NGOs)</li> </ul>	<ul style="list-style-type: none"> <li>• King County Solid Waste Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>• local emergency planning committees (LEPCs)</li> </ul>
<ul style="list-style-type: none"> <li>• King County Solid Waste Division</li> </ul>	<ul style="list-style-type: none"> <li>• King County Board of Health and their staff</li> </ul>	<ul style="list-style-type: none"> <li>• King County Council and their staff</li> </ul>
<ul style="list-style-type: none"> <li>• Suburban City Recycling Coordinators</li> </ul>	<ul style="list-style-type: none"> <li>• Seattle Solid Waste Advisory Committee</li> </ul>	<ul style="list-style-type: none"> <li>• Seattle City Council and their staff</li> </ul>
<ul style="list-style-type: none"> <li>• City of Bellevue staff</li> </ul>	<ul style="list-style-type: none"> <li>• Seattle Public Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Seattle Drainage staff</li> </ul>
<ul style="list-style-type: none"> <li>• King County Water and Land Resources Division</li> <li>• Public Health - Seattle and King County</li> </ul>	<ul style="list-style-type: none"> <li>• interested Sewer Districts</li> <li>• interested Suburban Cities</li> <li>• Seattle Drinking Water staff</li> </ul>	<ul style="list-style-type: none"> <li>• Suburban Cities Association - Public Issues Committee</li> <li>• businesses organizations</li> </ul>

The organizations and agencies consulted by the Program confirmed an approval process in which the proposed Plan Update would move from the MCC, to the Board of Health, to Ecology, and they introduced several additional issues for the Plan Update to address.

### 1.10.2. Identifying the Scope

Input concerning the scope of the proposed Plan Update was solicited from the organizations and agencies involved in commenting on the approval process, which are listed above, and from a Plan

Update page on the Program's Web site. In addition, the following efforts were made to solicit input from Program constituents: a workshop for Program Partner agencies and targeted service populations; focus groups with businesses; focus groups with underserved populations; and the analysis of survey data about the use of services by underserved populations.

The Plan Update page on the Program Web site provided an overview of the Program's structure, mission and funding sources and information about the Update process and scope definition. It also contained a draft outline of the Plan Update, a set of questions from the public about what should be included, and information on how to comment on the proposed scope and draft of the Update. Constituents could comment by e-mail, regular mail or by a dedicated phone comment line.

Issues proposed for the Plan Update document were presented at a workshop at the Renton Community Center in April 2009, and Program staff received input on these. Invitations to the workshop were e-mailed to more than 600 individuals, and more than 45 representatives attended the workshop.

Ideas generated from the workshop and from consultations with partner organizations were compiled and posted on the Web page. The 600 persons on the original invitee list were invited to review the document, and comments were accepted for over six weeks. The results of the consultations, public meeting and public comments were compiled into a draft table of contents for the Plan Update and presented to the MCC. The MCC approved the scope of work for the Plan Update in August 2009.

The Program made an effort to obtain input from its targeted service users, including small businesses and minority populations, through a series of focus groups, interviews and meetings with established minority service groups and coalitions. It also reviewed existing survey data on how they used our services. The results of those efforts are included in the Education and Outreach chapter of this document.

### **1.10.3. Draft Updates and Public Review**

The Plan Update chapters were written by a number of Program staff and by specialized consultants, where needed. Material for some chapters was already available, while for other chapters new material was developed and research was done. The Draft Plan Update was released for public comment in December 2009. It was posted on the Plan Update Web page, advertised to the 600-person e-mail list, and publicized using other means. By the Plan's completion, comments received from the public will have been incorporated into the Plan Update document as appropriate, and a revised Plan Update document will have been submitted to the MCC for review and approval.

### **1.10.4. The Approval Process**

The first step in the approval process is submittal to MCC for their review and approval of the draft Plan Update. By the Plan's completion, MCC changes will have been incorporated into an MCC-

approved draft, and that document will have been submitted to the Board of Health. Any Board changes will have been incorporated into a Board of Health-approved draft. That draft will have been submitted to Ecology for review and approval. If Ecology proposed changes, these will also have been incorporated into the Ecology-approved draft that will have become the final Plan Update.