



Lincoln County, Oregon

Household Hazardous Waste Management Plan

September 2010

Prepared by the Lincoln County Haulers in Partnership with the Lincoln County Solid Waste Disposal Service District (District), Lincoln County (County) and the Department of Environmental Quality (DEQ). This Plan updates the Lincoln County Household Hazardous Waste Management Plan dated September 2000 prepared by Harding Lawson Associates et. al. for the District.

Adopted by Lincoln County **Order # 10-10-333**, October 13, 2010.

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Solid Waste Disposal Service District **Order # 10-10-334**, October 13, 2010.

Lincoln County Solid Waste Disposal Service District
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Acronyms and Abbreviations

CERCLA County	Comprehensive Environmental Response, Compensation, and Liability Act Lincoln County
DEQ	Oregon Department of Environmental Quality
DIY	Do-it-Yourself (motor oil changer)
District	Lincoln County Solid Waste Disposal Service District
EPA	U.S. Environmental Protection Agency
FTE	Full-time Equivalent
Haulers Association	Lincoln County Haulers Association
HHW	Household Hazardous Waste
MSW	Municipal Solid Waste
NiCd	Nickel-Cadmium (batteries)
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
Plan	Lincoln County Household Hazardous Waste Management Plan
PPE	Personal Protective Equipment
Superfund	See CERCLA
SWAC	Lincoln County Solid Waste Advisory Committee
TSD	Treatment, Storage, and Disposal
TSDF	Treatment, Storage, and Disposal Facility
UL	Underwriter's Laboratories

1. Introduction

The Household Hazardous Waste Management Plan (HHWMP) was completed in 2010 through a collaborative effort with the Lincoln County Solid Waste Disposal Service District (District), Lincoln County (County), the County franchise waste haulers (Haulers), and the Department of Environmental Quality (DEQ). The 2010 HHWMP proposes a permanent collection system for household hazardous waste (HHW) that would replace the periodic HHW collection events that are currently conducted.

The core service will consist of four collection facilities that are equipped with an HHW collection cabinet and located at each of the four DEQ permitted transfer stations located in Lincoln County. The collection facilities will provide a secure, protected location for waste acceptance, identification, packing, and temporary storage.

Each facility will be open to the public a minimum of eight days per year in at least four different months with each event lasting approximately four hours. The facilities will also be open for special collections on an appointment basis.

Wastes collected at each facility will be removed from the County by a fully permitted and trained contractor, and sent to a permitted Treatment, Storage, and Disposal Facility (TSDF) for safe recycling, incineration, or disposal.

New HHW services, as described in this plan, are projected to cost approximately \$78,500 in capital costs per facility and \$22,165 in annual operating costs per facility. Annual operating costs of all four facilities will be \$88,662. These costs will be offset by funding options referred to in Section 6.2 Program Funding.

1.1 Plan History

A Household Hazardous Waste Management Strategy was submitted to the District dated September 29, 2000 by Harding Lawson Associations (HLA). However, the recommended HHW management strategy was not implemented due to a lack of funding. The HHW Management Plan proposed by HLA consisted of the following elements:

- A small, permanent HHW facility for waste acceptance, identification, packing and temporary storage. Wastes consolidated at the facility would periodically be removed by a permitted / trained contractor and transported to one or more permitted Treatment, Storage, and Disposal facilities for recycling, incineration, or disposal.
- Eight to twelve collection events held annually with each event lasting approximately four hours. HLA proposed that four of these events be located at the permanent facility with the remainder conducted in the incorporated cities and unincorporated communities of the County. Wastes collected at these local collection events would be safely packaged and transported to the permanent facility for further consolidation

and containment.

In 2007, the District and the Haulers agreed to a plan that would include greater convenience to the public and decreased operating costs. This plan consisted of a permanent HHW collection system for Lincoln County that would include three collection cabinets located at DEQ permitted transfer stations in Lincoln County.

In 2010, the core service of this plan was expanded to include four collection cabinets located at each of the four DEQ permitted transfer stations in Lincoln County. The collection facilities will be added gradually over a period of four years as funding allows with the first collection facility planned to open in January 2012 and possibly in Lincoln City.

Approval for the 2010 plan was sought from the County Board of Commissioners on September 22, 2010. The plan was adopted by the Board of Commissioners, and by the Board of Commissioners acting as the governing body of the Lincoln County Solid Waste Disposal Service District, on October 13, 2010.

1.2 HHW Management Goals

The following are Lincoln County's goals for managing hazardous waste from households and conditionally exempt small quantity generators (CESQGs):

- Minimize environmental and health impacts associated with HHW.
- Educate residents and promote the use of least hazardous products and approaches.
- Educate residents and small business owners in the reduction, proper use, and proper storage of household hazardous waste.
- Provide regular, convenient, efficient and cost-effective service, considering both short-term and long-term costs.
- Reduce the amount of household hazardous waste disposed of in landfills, sewage systems, ground water, waterways (streams, rivers, ocean), the air, illegally dumped, and incinerated. Accomplish this through education, collection, and focusing effort on waste types that pose a higher risk to the environment and health. Since Lincoln County is located on a 55-mile stretch of coastline, particular attention will be on how improperly disposed HHW can threaten our waterways, harm marine life, impact our water supply, and impact our health.
- Continue to build cooperative relationships among the District and member cities (Newport, Lincoln City, Toledo, Depoe Bay, Waldport, Siletz, and Yachats), Lincoln County, Haulers Association, Lincoln County School District, fire districts, poison control professionals, retailers, real estate agents, and the Oregon Department of Environment Quality.

- Focus efforts and resources on services which will achieve the greatest environmental and health benefit.
- Emphasize proper end-of-life management of any hazardous waste collected.
- Include Conditionally Exempt Small Quantity Generators (CESQGs) in these efforts by identifying CESQGs within the District, providing educational outreach, and encouraging/accommodating participation in proper handling, record keeping, storage and disposal.

1.3 Scope of HHW Management Plan

This Plan addresses hazardous wastes generated by households located within Lincoln County, Oregon. To a lesser extent, it also addresses hazardous waste from CESQGs in Lincoln County (see section 4.9). In the future Lincoln County may choose to consolidate HHW services with those in one or more adjacent counties (such as Tillamook, Yamhill, and/or Benton). At this time, however, this Plan is limited in scope to Lincoln County only.

The planning horizon of this Plan begins with Plan adoption by the Lincoln County Board of Commissioners, proceeds through the design and preparation of expanded HHW collection services, and continues for five years from the start of such services. If Lincoln County is awarded and accepts a grant for facility funding from the DEQ, one of the grant conditions will be operation of the HHW program for five years. After five years of operation, the County would like to continue providing HHW collection services, even though its obligation to the DEQ under the facility grant will have been completed.

2. Overview of HHW Management Needs

2.1 Evaluation of Present and Future Needs

There is currently no regular, convenient method for residents and small businesses to safely dispose of all their household hazardous waste in Lincoln County, with the exception of used motor oil, lead acid batteries, antifreeze, spent fuels, and latex paint (see Sections 3.3 and 3.4). Our local permitted municipal solid waste facilities are legally acceptable disposal sites for most hazardous wastes from CESQGs and households, even though these aren't the most desirable methods to dispose of many types of hazardous wastes. Thus, it is assumed that these hazardous wastes are either being disposed of mixed with regular garbage, or in some other manner.

The DEQ and the Lincoln County Haulers have met the need in Lincoln County for an HHW disposal option by funding local one-day HHW collection events for the last eight years. These events have been well attended with the average amount collected being 19,216

pounds (see Table 1).

There is general agreement among representatives from the Solid Waste District, the County, the cities, the Lincoln County Haulers Association, and the Solid Waste Advisory Committee that more convenient and permanent measures are needed to control HHW beyond the periodic collection events that are currently conducted. As noted in the April 21, 2004 Integrated Solid Waste Management Plan, the periodic HHW collection events are an inadequate response to the health and environmental dangers posed by HHW materials and that the same level of commitment to waste recovery in the County should also be applied to more aggressive management of HHW.

Reasons for concern about HHW and CESQG waste include the following:

- **Product Use.** When used improperly (for example, at high application rates), some pesticides may enter groundwater, or runoff from lawns and gardens into storm drains, and from there into rivers and lakes, killing aquatic life and contaminating drinking water.
- **Product Storage: Poisonings.** Improperly stored products can result in accidental poisonings, especially among children. According to the *American Journal of Emergency Medicine* (September, 1999), there were almost one million exposures to non-pharmaceutical HHW reported to poison control centers in 1998, including 241 deaths and 3,027 “major impacts”.
- **Product Storage: Fire Hazard.** Storage of flammable products (solvents, fuels, oil-based paint) in homes may start fires, add to the fuel load of buildings, and endanger firefighter safety.
- **Waste Collection.** There have been several reported incidents in Oregon of workers at solid waste disposal facilities being injured or endangered as a result of hazardous waste disposal from households. For example, some pool chemicals are highly reactive and can release a poisonous gas. Flammable products may ignite inside the collection vehicle, transfer stations, or disposal site.
- **Product Disposal: Direct Release to Environment.** Many hazardous products, unless segregated and collected separately from other wastes, can damage the environment, including contamination of soil and water, and pollution of air. Environmental damage can occur in several ways, including direct releases to the environment (dumping outside), releases from disposal sites (landfills and incinerators), and releases from wastewater treatment facilities. Used oil burned for fuel or dumped on the ground, automotive batteries thrown in a roadside ditch, and herbicides dumped down the storm drain are all examples of direct releases which may harm the environment. Illegal dumping of all types of wastes is a significant problem in Lincoln County, particularly in rural, forested areas.

- **Product Disposal: Landfills and Incinerators.** Even disposal of some types of HHW in lined, RCRA Subtitle-D compliant landfills (such as Coffin Butte) can result in environmental damage. For example, mercury disposed of with regular garbage can evaporate (volatilize). If collected, the leachate is typically treated on-site or sent to a wastewater treatment facility. In either case, the mercury is eventually released back into the environment, where it typically accumulates at increasing concentrations in the fatty tissues of fish, wildlife, and humans, causing neurologic and other damage.
- **Product Disposal: Wastewater Treatment Systems.** Some households (and CESQGs) may opt to flush certain hazardous wastes into the sewer. A survey of small businesses in Montgomery County, Maryland, found that 13% of hazardous waste from CESQGs is disposed of down the sewer. Research in King County, Washington, has found that approximately 20% of hazardous waste from households and CESQGs enters the stormwater and wastewater systems. Some types of HHW can damage drain lines, leak into surrounding soil, or damage wastewater treatment systems. Other types of HHW can pass through wastewater systems and be released into the environment in the form of wastewater or metals accumulation in waste solids (sludge).

For all of these reasons, there is a need to reduce the negative impacts of HHW on human health and the environment. This need is expected to continue into the foreseeable future. Priority environmental concerns in Lincoln County include the decline health of salmon populations and other marine life. The County's fishing industry is heavily dependent on healthy, viable fish stocks. Threats to drinking water quality are another significant issue, as is the related problem of illegal road-side dumping of trash. Better management of HHW can help address all of these problems. For example, recent studies have shown that pesticide releases into streams can increase the mortality rate of spawning salmon. Improving the management of waste pesticides in Lincoln County can benefit the well-being of both humans and wildlife.

3. Local Conditions

3.1 Planning Area

According to the State of Oregon Department of Administrative Services, Office of Economic Analysis, the estimated population for Lincoln County as of July 1, 2008, was 44,715. The estimated populations of the seven incorporated cities in Lincoln County are as follows:

- City of Newport: 10,580
- City of Lincoln City 7,875
- City of Toledo 3,610
- City of Waldport 2,145

- City of Siletz 1,190
- City of Depoe Bay 1,405
- City of Yachats 780

Total projected population for these seven cities is 27,585, roughly 62% of the total population of the County. The remaining 17,130 or 38% live in unincorporated areas, primarily along the coast and in rural, inland valleys.

Three private companies have been issued exclusive franchises to collect Solid Waste in the County. The three companies are North Lincoln Sanitary Service, Thompson's Sanitary Service, and Dahl Disposal Service. North Lincoln Sanitary Service operates out of Lincoln City and serves North Lincoln County; Thompson's Sanitary Service operates out of Newport and serves central Lincoln County, Dahl Disposal Service operates out of Toledo and Waldport, and serves East and South Lincoln County. Each of these DEQ permitted facilities operates a transfer station in their respective areas.

3.2 HHW Collection Events

The DEQ and the Lincoln County Haulers have funded one-day collection events during the last eight years. Attachment 1 shows the data of pounds collected from the most recent collection events, in comparison to the data collected from 1991-1997. Less HHW was collected during the 2002-2010 annual events as compared to the 1991-1997 events, which may be a result of the HHW items that can now be recycled on a regular basis at the transfer stations. These items include used motor oil, antifreeze, lead acid batteries, lightbulbs, and latex paint. For comparison sake, Attachment 2 shows the quantities of HHW collected by waste types from the 2006-2010 annual events. Latex and oil-based paint yield approximately 50% of total pounds collected.

2002

This event was held on May 18th at the Lincoln County Courthouse in Newport. The event included a mercury thermometer exchange, as well as a reusable products exchange. A total of 40,519 lbs. of HHW was collected from 450 participants.

2004

This event was held on September 18th at the Lincoln City Community Center Parking Lot. A total of 14,921 lbs. of HHW was collected from 150 participants. This low participation was attributed to the weather, which was wet and cold, with lightning storms and heavy rain.

2006

This event was held on September 15th and 16th in Newport and Lincoln City. A total of 21,044 lbs of HHW was collected from 260 participants. These figures do not include the quantities of latex paint, motor oil and automotive batteries that the county waste haulers collected for no cost the week leading up to the event or the amount of such materials handled by the haulers throughout the year. Therefore, this event is a more accurate representation of the hazardous waste in the county that is not already collected by other

means.

2007

This event was held on July 28th in Waldport at the Dahl & Dahl, Inc. Transfer Station. A total of 11,790 lbs of HHW was collected.

2008

This event was held on March 15th in Toledo at the Toledo Fire Station. A total of 15,070 lbs of HHW was collected from 141 participants.

2009

This event was held on Saturday July 25th in Lincoln City at the North Lincoln Sanitary Recycling Station. A total of 21,701 lbs. of HHW was collected from 209 residential participants and 4 CESQGs.

2010

This event was held on Saturday July 31st in Newport at Thompson's Sanitary Service. A total of 34,792 lbs. of HHW was collected from over 200 participants.

3.3 Automotive Fluids and Lead Acid Battery Programs

All three of the franchised waste collection companies (North Lincoln Sanitary, Thompson's Sanitary Service, and Dahl Disposal Service) collect used motor oil curbside from households. In addition, used motor oil, antifreeze, gasoline, and lead-acid automotive batteries are collected for recycling at all transfer stations in the County (Lincoln City, Newport, Toledo, and Waldport).

It is assumed that most of this used motor oil is a result of "do-it-yourself" (DIY) oil changes. Research in Washington, Oregon, California, and elsewhere indicates that a significant amount of DIY waste oil may be released inappropriately to the environment, causing significant pollution of soils, and ground and surface water. In fact, reducing groundwater contamination from motor oil has been identified by DEQ drinking water staff as a high priority, particularly in areas with shallow drinking water aquifers located below residential neighborhoods. Rural residents are more likely to be DIY'ers, as opposed to residents of urban areas. Providing convenient collection opportunities for all DIY'ers to safely manage used motor oil, such as convenient drop-off locations and curbside recycling, is a critical public health service from an environmental perspective. What is not well understood at this time is what percentage of the waste motor oil is currently being collected through these systems, and how much is still being disposed of inappropriately.

3.4 Lincoln County's Latex Paint Recycling Program

The County's Latex Paint Recycling Program, begun in 1999, has continued to grow, with blending increasing from once to twice per year. In 2008, the program produced 3,450

gallons of useable paint. The District recycles up to 80% of the latex paint collected on a daily basis through the County's four DEQ permitted transfer stations. Only usable latex paints in one-gallon or larger containers are accepted – no oil-based, bad paint, stains or varnishes. The collected latex paints are inspected for quality and sorted by color. The paint is rebled, filtered and distributed to the community in 5-gallon buckets at a reduced price. The public may purchase recycled latex paint in Newport at the Solid Waste District.

In July 2010 North Lincoln Sanitary, Thompson's Sanitary and Dahl Disposal Service officially joined together as the Lincoln County Haulers Association (LCHA). The LCHA will take over operations of the District's Latex Paint Recycling Program. Each transfer station will mix the paint that is collected at that site. The paint mixing trailer and equipment will be moved from transfer station to transfer station as needed. The Recycled Latex Paint will be available for sale at each transfer station and/or recycling center. This is an improvement over the existing program where all latex is collected and then transported to Newport and the recycled paint is only sold at the Solid Waste District office in Newport.

The LCHA is in the process of presenting PaintCare (see below) with a proposal for reimbursement for collecting, sorting & mixing latex paint. Oil based paints and other products covered under the Paint Stewardship program will also be accepted at all county transfer stations. Good latex paint will be recycled through the County's Latex Paint Recycling Program and other paint products (primarily oil based paint) will be handled through the County's PaintCare program. PaintCare will be responsible for transporting the non-latex paint products that are covered under the Paint Stewardship Plan.

The Paint Stewardship Program is a pilot program. The Lincoln County Haulers Association will continue with the Latex Paint Recycling Program regardless of whether the Paint Stewardship Program continues.

3.5 Paint Stewardship in Lincoln County

"PaintCare" is the product stewardship program paid for by fees that customers pay when they buy paint and under which covered products are managed statewide. PaintCare was established to manage the reuse, recycling and proper disposal of old paint. PaintCare, a not-for-profit organization, was created by the American Coatings Association, who, working with state and local government stakeholders, passed the first ever paint product stewardship law in the United States in Oregon in 2009.

On July 1, 2010 PaintCare became operational. A PaintCare Recovery Fee has been applied to the purchase price of each unit of paint sold in Oregon, based on a graduated container rate. From this fee, PaintCare plans to increase collection centers throughout Oregon, establishing more convenient opportunities for recycling and proper disposal of leftover paint.

The HHW collection system that's outlined in this plan will provide an outlet for the public to dispose of the remaining HHW that's not covered by PaintCare and not already being collected at the transfer stations. Once the PaintCare program is operating in Lincoln County, and if it continues past its pilot phase, we expect a significant drop (by 40-60%) in HHW waste disposal expenses (see Attachment 2). PaintCare will be responsible for transporting the non-latex paint products that are covered under the Paint Stewardship Program. Reusable latex paint will be stored and rebled by the LCHA. The latex paint that cannot be reused will be recycled through the PaintCare program.

Items Accepted Under PaintCare (maximum container size: 5 gallons):

- Exterior and Interior Paints: Latex, Acrylic, Water-based, Alkyd, Oil-based and Enamel (all types of finishes and sheens, including textured coatings)
- Deck Coatings and Floor Paints (including elastomeric)
- Lacquers, Lacquer Sanding Sealers and Lacquer Stains
- Melamine, Metal and Rust Preventatives
- Primers, Undercoatings and Sealers
- Stains and Shellacs
- Swimming Pool Paints (single component)
- Varnishes and Urethanes (single component)
- Waterproofing, Sealers and Repellents: Concrete, Masonry and Wood (no tar or bitumen-based)
- Wood coatings (containing no pesticides)

Items Not Accepted Under PaintCare:

- Aerosol Paints
- Automotive Paints
- Caulking Compounds, Epoxies, Glues or Adhesives
- Colorants and Tints
- Craft Paints
- Deck Cleaners
- Industrial Maintenance Coatings
- Marine Paints
- OEM and Industrial Surface Coatings, Paints and Finishes (shop application)
- Paint Additives
- Paint Thinners, Mineral Spirits or Solvents
- Pesticide Containing Products
- Resins
- Roof Patch or Repair
- Tar or Bitumen-based Products

4. Recommended Approach

4.1 HHW Management Options

The Household Hazardous Waste Management Plan, adopted in September 2000, proposed several different scenarios for the collection of HHW. The option that was selected by the District, the Haulers, and other interested parties, is markedly different from the original proposals. The selected plan relies primarily on the area haulers to handle waste collected from the public at four HHW collection facilities and includes greater convenience to the public and decreased operating costs.

4.2 Overview of Recommended HHW Management Option

This plan identifies the services which the Haulers, working in partnership with the County, the Cities, the Solid Waste District, and other interested parties, proposes to implement to address the problem of HHW. The proposed new collection services of HHW consist of the following:

- An HHW collection cabinet at each of the four DEQ permitted transfer stations located in Lincoln County.
- Consolidated wastes will be removed from the County by a fully permitted and trained contractor, and sent to a permitted Treatment, Storage, and Disposal Facility (TSDF) for safe recycling, incineration, or disposal.

Elements of these services are explained in greater detail below.

4.3 Targeted and Accepted Wastes

Lincoln County's HHW collection program will place emphasis on collecting the most highly-hazardous wastes, as identified by DEQ. There will be a special focus on collection of the following waste types:

- **Poisons:** pesticides, herbicides, fungicides and other poisons.
- **Heavy Metals:** mercury and products containing elemental mercury (thermostats and thermometers, fluorescent light tubes, mercury batteries, bilge pump switches), Nickel-Cadmium (Ni-Cd) batteries, lead-acid batteries.
- **Flammables:** solvents, gasoline, kerosene, other fuels, oil-based paint, and flammable solids.
- **Corrosives:** acids, bases, and reactives (such as pool chemicals).

Motor oil and lead-acid batteries are best managed through the solid waste transfer stations or curbside collection (for motor oil). Residents bringing these materials will be informed of the availability of these services. Promotional materials for the events will not list motor oil, lead acid batteries, and paint as wastes to be accepted at the events (although they will be); promotional materials may list other places (solid waste transfer stations, PaintCare collection site etc.) to take these waste types.

ACCEPTED HHW INCLUDES THE FOLLOWING:

Paints, Stains, and Solvents (An alternative to dispose of Latex Paint is provided by the County's Latex Paint Recycling Program. Disposal of latex paint and more will be provided by the state's new PaintCare program)

- Oil-based paint and stains
- Latex paint, water-based stains
- Aerosol paints
- Other paints (pool, marine, auto)
- Solvent-based cleaning fluids
- Water-based cleaners

Pesticides and Poisons

- Solid, non-flammable pesticides
- Aerosol pesticides
- Liquid pesticides
- Solid, flammable pesticides

Corrosives

- Acids
- Bases (drain cleaners, oven cleaners)
- Reactives
- Oxidizers

Other Automotive Products (An existing alternative for safely disposing of these products is already provided through the solid waste transfer stations)

- Motor oil (new and used; only accepted if incidental to other waste deliveries)
- Contaminated, used motor oil
- Antifreeze (new and used)
- Vehicle Batteries (only accepted if incidental to other waste deliveries)
- Other automotive fluids

Other Household Products

- Household batteries, NiCds, buttons
- Polishes, waxes, soaps
- Thermometers, thermostats
- Fluorescent light bulbs, ballasts

NOT ACCEPTED HHW INCLUDES THE FOLLOWING:

- Explosives. Few HHW programs accept any explosives but in some areas near coasts and water bodies, there are few options manage spent emergency flares (required in all boats over 16') and so some programs team up with the Coast Guard or fire departments to accept these and then let the fire departments manage them. Adding these wastes as an option will be explored at a later time.
- Radioactive materials (with one possible exception being if the selected Treatment, Storage and Disposal facility has a reasonably priced option to manage smoke detectors).
- Electronics (unless containing significant amounts of mercury). These are difficult items to manage, and require significant space and staff. (*NOTE: An existing alternative for safely disposing of electronics is already provided through the solid waste transfer stations*).
- Compressed gas cylinders. Expensive; may be added at a later date if management costs decrease.
- Asbestos.
- Sharps (needles). An existing alternative for safely disposing of sharps is already provided through medical waste services provided at the solid waste transfer stations.

4.4 Overview of the HHW Facilities

The collection facilities will serve three primary purposes: waste acceptance, waste identification, and temporary waste packing and storage. Each facility will be open to the public a minimum of eight days per year in at least four different months with each event lasting approximately four hours. The facilities will also be open for special collections on an appointment basis.

Waste identification involves the classification of wastes into pre-determined categories so that compatible wastes are stored together and incompatible wastes are kept separate. Definitions of compatible and incompatible are a function of reactivity, safety, end-user (TSD) requirements, economics, and available storage space.

Waste packing generally consists of three approaches:

- loose packing (wastes are kept in their original containers, and packed together into totes or drums);
- lab-packing (the same as loose packing, but with the addition of absorbent material around the containers, in order to protect containers during shipment and absorb any spilled liquids); and

- bulking (wastes are drained or emptied from their original containers into a bulk liquid "soup" of compatible wastes).

Finally, waste storage provides for the temporary storage of full or partially full containers prior to eventual transport to TSDFs located outside of the County.

Wastes delivered to the facility by individuals and CESQGs on an appointment basis will undergo preliminary identification at the time of delivery so that incompatible wastes are kept separate. Depending on the types of waste, the certainty of identification, and staff availability, these wastes may be packed in their final shipping containers at that time, or stored in containment totes inside the cabinets for final identification and packing at a later date.

Waste will be stored in a HHW approved pre-fabricated 3-bay collection cabinet. Storage of wastes inside the cabinets is essentially of two types. The first type is waste that have been identified and packed into their final shipping containers. The majority of waste stored on-site at any one time will be in this form. In most cases, the final shipping containers will be 55-gallon drums. In all cases, only Department of Transportation approved shipping containers will be used.

The second type of storage will consist of relatively small amounts of wastes, in their original containers, stored on shelves in totes, in containment pallets or totes. Incompatible wastes will be stored in separate containment totes. These wastes will be re-identified and packed into their final shipping containers by the contractor prior to being hauled to the TSDF. This second type of storage is a temporary measure to allow for waste acceptance without requiring final waste identification, bulking, and/or lab packing each time waste is brought to the cabinets.

Each facility will consist of a HHW approved pre-fabricated collection cabinet and sealed concrete flooring. The facility will be located partially or fully underneath the canopy; at a minimum, the main entrance to the cabinets will be under cover. Waste acceptance and identification will occur underneath the canopy. A few other types of collected wastes may also be stored outside of the facility but underneath the canopy, in appropriate containers (55-gallon drums, etc.), if allowed by DEQ and the local land use permit. Storage space inside the collection cabinets will be at a premium, so the Haulers will work with DEQ and the local permitting authority to identify those wastes that can be safely stored outside of the cabinets.

The collection cabinets will be sited at permitted transfer stations, and will be purchased from companies that design storage for this type of waste. No additional permits will be required for the cabinets however existing DEQ permits will need an addendum.

Additional details regarding cabinet design and operations will be resolved with DEQ in the subsequent Engineering Plans and the Operations Plan, which will be prepared prior to beginning the DEQ permit addendum process.

4.5 Facility Permit Requirements

There will be no need for a new DEQ permit, as the collection cabinets will all be located on permitted solid waste facilities. However, existing transfer stations will need an addendum to include the collection of HHW.

4.6 Collection at the HHW Facilities

HHW drop off at the facility will be during regularly scheduled days throughout the year, rather than “events”, or at least 8 times per year.

4.7 Collection at Other Locations

N/A

4.8 Number, Frequency, and Duration of Events

There will no longer be a need for collection “events”, as HHW drop-off will be available year-round and should not need special HHW collection events.

4.9 Services for CESQGs

Conditionally exempt small quantity generators (CESQGs) are businesses that generate less than 100 kilograms per month (about 220 pounds) of hazardous waste (or 1 kilogram/month of “acutely hazardous waste”), and accumulate less than 1,000 kilograms (about 2,200 pounds) of hazardous waste at any one time. Unlike larger generators of hazardous wastes, CESQGs are not required to have an EPA identification number, use a manifest when shipping hazardous waste, properly package and label shipments of hazardous waste, or report to DEQ. CESQGs are responsible for the treatment or disposal of their hazardous wastes; however, permitted municipal solid waste facilities are acceptable disposal sites for CESQGs. Although disposal of CESQ waste at the transfer stations may be legal, it can be less desirable for the environment as well as worker safety (see Section 2.1).

Common types of CESQGs (and common types of waste they generate) include:

- Small printers (press cleaners and other solvents)
- Photography businesses (developers, bleachers, fixers)
- Small dry cleaners (perchloroethylene)
- Automobile services (spent solvents, antifreeze)
- Construction contractors (paint thinner, flammable paints, varnishes, stains)

- Farms, landscapers and horticultural businesses (pesticides, herbicides, fungicides, motor oil)

Because it is legal (though not environmentally preferable) for CESQGs to dispose of their hazardous waste at permitted solid waste transfer stations and landfills (just like households), HHW collection programs often also include CESQGs.

All four facilities will accept the HHW waste of CESQGs but pre-registration will be required. DEQ will most likely require that the CESQGs be tracked and that their status as CESQGs be certified. Self-certification is usually acceptable.

Assuming this approach is taken, pre-registration will involve these basic steps:

1. The CESQG completes a statement certifying that they are, in fact, a CESQG. At the same time, the CESQG completes a second form, identifying the types and volumes of wastes they desire to bring to the event.
2. The application is denied if the applicant is not a CESQG.
3. Each facility will estimate the fee. CESQGs will be charged directly for collection service. The fee will cover the estimated waste management costs for the types and volumes of waste. The exact fee structure will be determined by the facility. Each facility will clearly explain that the fee is an *estimated* fee, and that the total charge is subject to change based on actual waste types and quantities delivered.
4. Facility staff will schedule an appointment time for the CESQG to bring their waste. Processing CESQG waste requires additional time to verify the types and quantities of wastes and handle payments and receipts.
5. The facility will arrange pre-payment of the estimated fee. In the event that waste quantities or types are significantly higher or lower than estimated, the Facility will either invoice the CESQG, or provide a refund.

Most communities that include CESQGs in their HHW collection events find that the amount of additional waste contributed by CESQGs is not large. It is very challenging to get the CESQGs generally to trust the facility, and then to accept that they should pay for disposal as hazardous waste items that they've usually thrown out in the solid waste for a fraction of the cost. A typical CESQG will bring in over 100 pounds of waste. This represents about 2% of total projected waste volumes.

4.10 Overview of Waste Management

Reusable materials meeting the established re-use criteria may be set-aside as part of a waste reuse program. This is discussed in greater detail in Section 4.11, below. A few wastes collected at the facilities (and possibly stored at the facilities) will be managed locally. Reusable latex paint will be stored and rebled by the Lincoln County Haulers Association

as described in Section 3.4. The latex paint that the District cannot reuse will be recycled through the PaintCare program. Ni-Cd batteries will be shipped to a recycler. Any used motor oil, antifreeze, or lead acid batteries accepted will be managed through the local system of transfer stations.

Even after local management and waste re-use, the majority of wastes will still require transport to a permitted TSDF. There, wastes may be recycled, disposed of in a hazardous waste landfill, burnt for fuel, or incinerated in a hazardous waste incinerator. Waste management options are driven by a variety of factors, including available technology, cost, policy (the waste management hierarchy), and risk.

Both the State of Oregon (acting on behalf of the DEQ) and the State of Washington (acting on behalf of the Department of Ecology) maintain contracts for waste management that may be used by local governments in Oregon through a "purchaser program". This allows Lincoln County to use the states' waste management contractor(s) (and the security of the states' contract) without needing to select a contractor from scratch and negotiate a contract. The haulers will evaluate these two contracts and use one or both for any collected waste that can't be managed locally.

In selecting waste management options, the haulers will place the greatest emphasis on minimizing risk and liability. Under CERCLA, the hauler is responsible and could be found liable should hazardous waste from this program end up causing environmental damage, *even if this damage occurs outside of Lincoln County and/or is a consequence of poor management on the part of the County's contracted hazardous waste vendor (TSDF) or its agent*. While this risk can never be totally eliminated, it can be reduced through adequate contractual terms, and by ensuring that the TSDFs and the companies that own them have:

- Good compliance histories,
- Relevant experience,
- Staff trained at appropriate levels,
- A U.S.-based insurance policy with a reasonable deductible and from an insurance company with good ratings (A- or better from AM Best, or A or better from Standard & Poors),
- Adequate funding reserved for facility closure,
- Adequate overall financial strength,
- Receipt of Certificates of Disposal from the final waste management facility.

The insurance policies should cover vehicle liability, including MCS-90 (provides cash availability to pay for immediate clean-up in the event of spills), worker's compensation, general liability, pollution liability for at least the next three years, and umbrella liability (for all liability expenses not covered by other insurance).

Cost will be the second most important criteria for the hauler in selecting waste management options. For example, if the hauler has two waste management options for a particular waste, one of which is at a facility with an excellent compliance history that charges more to accept the waste, and the other is at a facility with a spotty compliance history that will charge less,

the hauler will select the former. However, if two facilities with comparable compliance histories charge different costs, the hauler will choose the less expensive.

The criteria receiving the least weight in evaluating options is the waste management hierarchy (with preference given to recycling first, then energy recovery and finally land disposal). This criteria will only come to bear for the hauler if two options (for example, recycling vs. land disposal) have comparable risk and cost.

4.11 Re-Use Program

The hauler will operate a program for collected items that may be reused. While many wastes brought to the facility are not appropriate for re-use (or, from an environmental and public health perspective, should not have been used in the first place), some are. Diverting these items reduces disposal costs for the facility, while reducing purchasing costs for whoever uses the material. Other HHW programs have reported disposal cost savings of up to 20% with a comprehensive waste reuse program.

Reusable items must have intact containers, readable labels, no obvious contamination, and must be mostly full. Certain items should not be distributed for reuse regardless of what condition the packaging is in (such as banned pesticides). Potentially reusable items will be set aside and stored at the permanent facility. The exact storage location (inside the storage building, in shelves or a locker under the canopy, inside the cargo box, or elsewhere) will be determined in coordination with DEQ.

Facilities will work with the interested partners and institutions to “market” these reusable items to them. This might consist of a quarterly inventory and product list distribution. Partners interested in taking the items for reuse will make an appointment with facility staff to come to the facility to collect the material. Users will be required to sign a waiver form releasing the facility from any liability. If a product doesn’t “sell” within a set period of time (6-12 months) it may be transferred into the HHW storage facility and packed with other wastes for removal and disposal.

Depending on available resources and space, the facility may expand the program into a full-service “drop and swap” with controlled public access. This will require a greater amount of space and retail-style shelving and organizations. Many HHW programs throughout the U.S. operate these types of services, so facility staff can learn from and evaluate these other programs prior to implementing this idea in Lincoln County. The facility may also set-up limited “drop and swap” tables.

5. Program Management and Implementation

The County will be the owner of the HHW cabinets but there will be an agreement (MOA) between the waste Haulers and the County that designates the Haulers as owners and operators of the HHW program, as well as the designated “generators.” As the “generators,”

company staff will sign manifests and will assume liability through CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act; also known as "Superfund") for proper transportation and management of wastes. Because of this, it will be essential to review and approve any and all TSD facilities used by the contractor for adequate liability insurance, compliance history, and management systems. This is an important management responsibility and cannot be overlooked.

5.1 Management Responsibilities

District staff will share management and implementation of the program with the County's Haulers, although primary responsibility will be on the Haulers, as the owners of the collection sites.

5.2 Program Staffing

Staffing will include at least one hazardous waste specialist and one non-waste technician at each site where a collection facility is located at all times that hazardous waste is accepted from the public.

5.2.1 Hazardous Waste Chemist

The role of the chemist will be fulfilled by the contractors who service the collection facilities in preparation for removal to the TSD. There will be a contract chemist present each scheduled day the facilities are open.

5.2.2 Hazardous Waste Specialists

The Hazardous Waste Specialist(s) will assist the Chemist and work under the Chemist's direction. A Specialist will have a minimum of OSHA 40-hour training, depending on the work expected from them. They will also receive specialized training in HHW management as well as hands-on training under the supervision of a Chemist. They will be provided with appropriate personal protective equipment suited to their tasks (gloves, aprons, cover-up suits, visibility vests). The hazardous waste specialists will perform the following types of tasks:

- a. Set-up site;
- b. Unload waste and segregate into basic groups;
- c. Consolidate flammable liquids, under the supervision of the Hazardous Waste Chemist;
- d. Lab pack wastes, under the supervision of the Hazardous Waste Chemist;
- e. Handle latex paint (i.e., stacking containers onto pallets or into boxes or pouring into drums);
- f. Move full drums; and
- g. Remove solid waste or consolidate corrugated cardboard boxes for recycling.

The Hazardous Waste Specialist will be a facility staff member. Additional responsibilities during collection include staff oversight, signing of manifests, recordkeeping, and coordinating efforts with the hazardous waste chemist, who serves as the lead technical resource. Over time, and with sufficient experience, the lead Hazardous Waste Specialist may be able to assume some of the responsibilities of the Hazardous Waste Chemist.

5.2.3 Non-Waste Technicians

The non-waste technicians will receive training in on-site procedures, emergency response procedures and basic safety procedures. They will perform the following types of tasks:

- a. Set-up site;
- b. Direct traffic, ask survey questions, hand out informational materials to participants;
- c. Handle latex paint (i.e., stacking containers onto pallets or into boxes or pouring into drums); and
- d. Remove solid waste or consolidate corrugated cardboard boxes for recycling.

5.2.4 Sources of Staff

Hazardous waste specialists at the collection facilities will be employees of the Hauler that owns the site on which the collection facility is located. The Hauler will ensure that all specialists are properly trained.

5.3 Staff Training and Health & Safety

Each staff person will be provided with appropriate Personal Protective Equipment (PPE) for the tasks they are performing. The staff will be trained in emergency procedures such as how to limit and deal with minor spills, how and where to evacuate and who to call in the case of major emergencies. Staff will follow all standard operating procedures.

The establishment of health and safety policies and procedures will protect the workers and the general public from potential safety and health hazards posed at the site. The facility must also comply with Oregon and Federal OSHA requirements regarding worker safety. This involves implementing safety procedures regarding operations, personnel training, and personnel health monitoring.

5.3.1 Operational Safety Procedures

Standard operational safety procedures will be implemented by the facility. The correct level of Personal Protective Equipment (PPE), such as respirators, gloves, boots, helmets, protective jumpsuits, and reflective traffic vests will be established to fit the level of hazard exposure. There will be a procedure for entering and exiting the waste handling areas. Safety equipment will be provided and stored in accessible areas, and checked prior to any events or

waste handling. Animals and unauthorized people must be kept out of the active areas of the facility (which will have security fencing and locks on gates and doors). There will be an accessible facility drawing that shows fencing and signs, emergency equipment areas, storage areas for PPE and spill response equipment, and a shower and eyewash station.

5.3.2 Personnel Training

All employees working onsite will be trained and informed as to the hazards they may be exposed to and safe work practices. Hazardous waste specialists will attend a 40-hour hazardous waste personal protection and safety course and an annual 8-hour refresher course. Non-waste technicians will attend a 24-hour hazardous waste personal protection and safety course and an annual 8-hour refresher course (unless their role is limited to traffic control only). There will be a written training plan for each job description, which includes the type and amount of both introductory and continuing training for each position. The facility will maintain training records and check that employees have met individual work task training requirements.

5.3.3 Personnel Health Monitoring

A medical evaluation program will be instituted for the following employees:

- Any employee who is or may be exposed to hazardous substances or health hazards at or above the Permissible Exposure Limits or, if there is no Permissible Exposure Limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year.
- Any employee who wears a respirator during part of a day.
- Employee exhibiting symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation.

Medical examinations and consultations will be required of these employees prior to employment at the facility and events. A medical examination should also be performed as soon as possible, upon notification by an employee either that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards or that the employee has been injured or exposed above the Permissible Exposure Limits (PELs) or published exposure levels in an emergency situation. Routine medical monitoring will occur at least annually, and an exit exam will be provided to all employees when they end employment.

5.4 Program Partnerships

The Lincoln County Haulers will work with the following organization and entities to develop partnerships to support the HHW program. Each of these entities has expertise to lend to the HHW program and/or an interest to be furthered by participating.

Cities. Resources: funding, newsletters, personnel, equipment, facilities. Interests: minimizing household hazardous waste in their sewage treatment systems, protecting public health and the environment, possible CESQGs.

Lincoln County. Resources: funding, personnel, equipment, sites, legal oversight, facilities. Interests: same as cities, possible CESQG.

Haulers Association. Resources: personnel, equipment, facilities, outreach to customers. Interests: expanded service to customers, improved collection vehicle and facility safety, possible CESQGs.

Lincoln County School District. Resources: educational outreach, facilities. Interests: Possible CESQG.

Fire Districts. Resources: equipment, facilities, trained staff and volunteers. Interests: minimizing fire threats, minimizing risk to firefighters and other emergency personnel, public health and safety, possible CESQGs.

Poison Control Professionals. Resources: educational outreach. Interests: public health and safety.

Realtors. Resources: educational outreach. Interests: expanded service to customers by assisting with proper disposal of accumulated household hazardous waste at the time of home sale/purchase.

Retailers. Resources: appropriate handling, storage and disposal for products they sell, educational outreach. Interests: service to customers, expanded responsibility, possible CESQGs.

DEQ. Resources: professional and financial support, statewide contract for HHW staff/transportation/waste management, educational outreach, regulatory knowledge. Interests: environmental protection.

Neighboring Communities and Programs. (Tillamook County, City of Corvallis, Lane County, etc.) Resources: experience, staff. Interests: possible cost efficiencies by coordinating efforts, possibility to improve services by coordinating efforts.

5.5 Program Outreach

The Lincoln County Haulers will work with the District, County, cities, fire departments, poison control professionals, real estate agents, and other program partners to educate Lincoln County residents and businesses about safe management of hazardous waste. The

outreach effort will focus on three separate areas: waste prevention, safe use and storage of products, and waste management opportunities (curbside collection, transfer stations, collection events).

Except for the staff time involved, many of these approaches are available to the Lincoln County Haulers at little or no cost.

- Inserts in local utility bills
- Website postings
- Press releases to local newspapers/radio stations. Newspapers include the News-Times, News Guard, South Lincoln County News and Beacon.
- Interviews/call-ins on local radio stations such as KNPT (Newport), KBCH (Lincoln City), and KORC (Waldport).
- A booth at the Lincoln Country Fair.
- Articles in the Lincoln County employee newsletter.
- Presentations before community groups such as real estate agents, Chambers of Commerce, Rotary, and Kiwanis.
- Presentations in Lincoln County Schools.
- Distribution of educational materials provided at no cost to the County by DEQ, such as the *Hazardless Home Handbook* and other information on alternatives to hazardous products.
- Fliers posted or handed out at the transfer stations.
- Information on checkstands at grocery stores and other retail outlets (particularly where hazardous materials are sold).

5.6 Out of County HHW

In the past, DEQ has maintained facility reimbursement programs for facilities that accept Out-of-County HHW. Due to DEQ budget cuts, Metro (in Portland) no longer receives funding from DEQ for Out-of-County HHW. Lane County is currently the only recipient of this funding. DEQ has previously expressed a willingness to negotiate a similar agreement with Lincoln County however funding for additional counties to receive Out-of-County HHW reimbursement will probably not be available in the future and cannot be relied upon as a source of funding.

5.7 Measurement of Program Success

Through records maintenance, the Lincoln County Haulers will measure the following metrics of program success on an annual basis:

- Pounds of waste managed
- Percent reused or recycled
- Cost per pound managed
- Number of households served/year
- Number of CESQGs served/year

- Number of new users per year
- Number of household clean-outs (movers or those cleaning out for a relative) per year (% of all moves)

Because latex paint is not a hazardous waste, it will be accounted for separately from other waste types.

In the event that waste volumes and/or participation fail to meet the District's expectations, participation will be increased by evaluating the convenience (time and location) of events, increasing promotion of events, and expanding public education capabilities.

6. Program Budget and funding

6.1 Budget Projection

Attachment 3 portrays a projected budget for the HHW collection program. There are two versions of the projected budget. Version 1 portrays one collection facility added per year over the course of four years. Version 2 portrays two collection facilities added during Year 2 and two facilities added during Year 4. Version 2 utilizes the availability of DEQ HHW facility grant funding for 2010. After 2010, DEQ has no additional money budgeted for HHW grants and cannot be relied upon as a future funding source.

A 15% contingency factor is added to all costs in the projected budget. New HHW services, as described in this plan, are projected to cost \$78,500 per facility. Total average annual operating cost for all four facilities is \$88,662. Program funding will be through incorporation of costs into the uniform rate reporting structure which is annually adopted and updated by the solid waste franchises, user fees, Solid Waste District funding, grants, or a combination of all the above. Franchise areas and the District will work together to determine how to fund the HHW program.

6.2 Program Funding

The Solid Waste District has already expended **\$43,000** in fiscal year 2010-2011 on an HHW. As noted in the Plan, future costs are expected to be reduced depending on waste volumes generated. Future HHW collection system could be funded by four sources.

1. Incorporation of Costs into Solid Waste Rate Structure.

This method has been used for a variety of programs in the solid waste franchises areas of operations including solid waste collection, transfer and disposal, and curbside recycling. This method would allow actual costs of the HHW program for each franchise to be calculated and included in the annual rate reporting system (Uniform Rate Reporting Format) which is used by each franchise in the county to set annual rates. The advantage is to spread the cost across the entire franchise system.

2. User fees.

Those who use the system will pay at the time of drop off. The user fee will also be determined by the uniform rate structure and will include labor, operational and administrative expenses, and the allowed operating margin with which the Haulers are bound to under contract. The difference here is that the actual fees would be assessed to the user rather than across the franchise. The true cost per pound of HHW disposal is projected to be \$3.38 (+ \$1.98 if the 15% contingency is included making actual cost per pound of HHW disposal \$5.36). This fee will be applied to HHW program operating expenses. Of course this fee could be reduced significantly by combination with other funding sources such as a franchise wide rate and/or Solid Waste District funding.

2. Solid Waste District.

As noted before, the District funded the HHW program in fiscal year 2010-2011 in the amount of \$43,000. This was significantly more funds than in previous years and is not sustainable in the future with the current funding for the District. The District estimates it could contract with the haulers for up to \$25,000 annually to support this program. This would be based on District's annual budget and available resources.

3. DEQ Grant.

Any DEQ grant funding for HHW will be used to fund collection facilities. The Lincoln County Haulers Association and the Solid Waste District will submit a grant application to DEQ in October 2010 for a facility grant in the amount of \$47,875 to support the first HHW collection facility in Lincoln City and \$30,000 to support the second HHW facility in Waldport. After 2010, DEQ has no additional money budgeted for HHW grants. It is possible that funds will be added back into DEQ's budget for HHW programs, but unlikely.

7. Implementation Plan and Timelines

The plan is divided into two periods, the short-term planning, permitting and construction phase, and the long term operations phase, which will be a for a minimum of five years.

7.1 Short Term Planning, Permitting and Construction Phase

The short-term period extends through the planning, permitting, and construction of the first HHW facility, and other work necessary to prepare for the services described later in this Plan. During this short-term period, which is expected to last approximately two years, the District may choose to provide a few HHW collection events. These events will probably be staffed by a HHW contractor, as has been done in the past, and funded by the District. The short-term planning, permitting and construction phase commences with adoption of this Plan by the County and by the District's Board of Directors. Generally speaking, these activities must be completed first:

- Work with the County Board of Commissioners and municipal governments to secure a funding agreement and any necessary intergovernmental agreements for program funding.
- Prepare and submit HHW facility grant application to DEQ and negotiate grant-funding contract with DEQ.
- Prepare building/engineering plan, site plan, and operations plan. Because the storage facilities will most likely be fully equipped pre-fabricated units, engineering requirements are relatively small, and include design of the concrete pad, secondary containment, interface of the pre-fabricated unit to the pad and utilities, pole-barn canopy roofs, and fencing. General site design must also address access and traffic flow. If a pre-fabricated unit is used, the exact model, design, and floor plan of the unit will need to be determined at this time.

7.2 Long Term Operations Phase

The long-term planning period begins once the first collection facility opens for service, and continues throughout the first five years of service. If the County receives a grant from DEQ then the HHW collection facility must be open to the public for five years. After five years, the County will have met its grant obligation to the DEQ for facility operation unless the County is a recipient of future DEQ grant funds to support a permanent HHW collection system in Lincoln County.

The permanent HHW collection system will continue beyond five years if funding is available and if the program continues to meet the public's HHW disposal needs.

Table 1.
Lincoln County Household Hazardous Waste Events, 2002 - 2010

Annual event	Newport &										Event	Event
	Newport	Lincoln City	Lincoln City	Waldport	Toledo	Lincoln City	Newport	Average	Average			
	2002	2004	2006	2007	2008	2009	2010	2002 - 2010	1991 - 1997			
Total pounds collected	40,519	14,921	21,044	11,790	15,070	21,701	34,792	22,834	27,049			
Number of participants	450	150	260	n/a	141	209	n/a	242	293			
Pounds per participant	90	99	81	n/a	107	78	n/a	91	92			

Table 2.

Quantities of HHW Collected by Waste Types, Lincoln County Annual Collection Events, 2006 - 2010

	Lincoln City & Newport		Waldport		Toledo		Lincoln City		Newport		Event Average	
	9/15/06 - 9/16/06	7/28/07	3/15/08	7/25/09	7/31/10	2006 - 2010	Pounds	Cost	Pounds	Cost	Pounds	Cost
Flammable Aerosols	517	749.65	260	327.60	591	727.65	0	0	0	0	273.6	360.98
Corrosive/Poison-aerosols	0	0	192	204.75	82	125.46	0	0	0	0	54.8	66.04
Flammable Liquids-Bulk	4031	1,370.54	2442	830.28	1968	708.48	0	0	2,193	745.62	2,126.8	730.98
Mercury	19	199.50	5	52.50	4	44.12	0	0	14	152.42	8.4	89.71
Alkaline Batteries	336	114.24	403	137.02	77	27.72	0	0	0	0	163.20	55.80
NiCad-batteries	0	0	34	4.76	0	0	0	0	0	0	6.80	0.95
Organic Peroxides	8	12.56	0	0	0	0	0	0	0	0	1.60	2.51
Antifreeze	464	78.50	0	0	0	0	0	0	197	53.19	132.20	46.34
Flammable Liquids	319	320.25	0	0	0	0	2,724	926.16	0	0	608.60	249.08
Flammable solids	593	533.70	0	0	0	0	0	0	3,874	4261.40	893.40	959.02
Pesticides/Poisons (liquids)	2028	2,059.75	846	924	1168	1,413.28	3,355	3,690.50	0	0	1,479.40	1,617.51
Pesticides/poisons (solids)	709	723.18	616	628.32	426	460.08	507	557.70	300	880	611.60	649.86
Pesticide Aerosols	193	279.85	0	0	0	0	516	789.48	555	849.15	252.80	383.70
Oxidizers	126	244.44	74	143.56	140	242.55	95	193.80	2	100	87.40	184.87
Acids-Inorganic	291	343.38	114	134.52	163	203.75	266	351.12	157	207.24	198.20	248.00
Base (Alkali liquid)	351	414.18	219	258.42	284	248.06	356	469.92	222	293.04	266.40	336.72
Ammonium Nitrate Fertilizers	104	119.60	0	0	0	0	0	0	0	0	20.80	23.92
Ammonia	0	0	0	0	15	18.75	0	0	0	0	3.00	3.75
Propane, Butane	39	107.25	243	668.25	0	0	0	0	15	750	59.40	305.10
BBO-type propane-bottles	50	137.50	0	0	32	92.48	0	0	0	0	16.40	46.00
Chromium Trioxide	8	12.56	0	0	0	0	0	0	0	0	1.60	2.51
Asbestos	658	388.22	0	0	0	0	0	0	0	0	131.60	177.84
PRM (adhesives, Tars)	458	412.20	895	724.50	1097	974.48	751	713.45	0	0	640.20	564.93
Activated Carbon	0	0	0	0	0	0	0	0	1,608	1,768.80	321.60	353.70
PCBs	0	0	0	0	0	0	0	0	46	146.28	9.20	29.26
Oil Based Paint	9,742	6,352.50	2,989	1,732.50	9,023	5,457.42	13,131	11,030.04	20,038	16,831.92	10,984.60	8,280.88
Latex Paint	0	0	1,933	541.24	0	0	0	0	5,071	2301.81	1,400.80	588.61
Leaking paints, small paints	0	0	525	462	0	0	0	0	0	0	105.00	92.40
Totals	21,044	\$ 15,073.55	17,190	\$ 7,174.22	15,070	\$ 10,744.28	21,701	\$ 18,722.17	34,792	\$ 29,340.87	20,879.40	\$ 16,330.77
Per pound	\$ 0.72	\$ 0.72	\$ 0.66	\$ 0.71	\$ 0.86	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.84	\$ 0.78
Totals Excluding Paint	11,302	\$ 8,721.05	6,868	\$ 5,500.48	6,047	\$ 5,286.86	8,570	\$ 7,692.13	9,483	\$ 10,207.14	8,389	\$ 7,388.68
Per pound	\$ 0.77	\$ 0.77	\$ 0.80	\$ 0.87	\$ 0.87	\$ 0.90	\$ 0.90	\$ 0.90	\$ 1.08	\$ 1.08	\$ 0.88	\$ 0.88

**Table 3. Version 1
Lincoln County Permanent Household Hazardous Waste Management Planning Project**

7-Year Cash Flow Projection (see Note 1):

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes
<u>Capital Costs - Collection Facility "1"</u>								
Land		0						
Facility design & engineering		4,000						See 2
Permit assistance, application fees		3,000						See 3
Site dev., utilities, access, paving, security fencing		17,000						See 4
Pre-fabricated storage unit (3-bay)		25,000						
Canopy 40' x 20'		16,000						800 s.f. @ \$20 s.f.
Concrete and epoxy paint		4,000						800 s.f. @ \$5 s.f.
Equipment, supplies, shelves, tools, signage		9,500						See 5
<i>Total</i>		<i>78,500</i>						
<u>Capital Costs - Collection Facility "2"</u>								
Land			0					
Facility design & engineering			4,000					See 2
Permit assistance, application fees			3,000					See 3
Site dev., utilities, access, paving, security fencing			17,000					See 4
Pre-fabricated storage unit (3-bay)			25,000					
Canopy 40' x 20'			16,000					800 s.f. @ \$20 s.f.
Concrete and epoxy paint			4,000					800 s.f. @ \$5 s.f.
Equipment, supplies, shelves, tools, signage			9,500					See 5
<i>Total</i>			<i>78,500</i>					
<u>Capital Costs - Collection Facility "3"</u>								
Land				0				
Facility design & engineering				4,000				See 2
Permit assistance, application fees				3,000				See 3
Site dev., utilities, access, paving, security fencing				17,000				See 4
Pre-fabricated storage unit (3-bay)				25,000				
Canopy 40' x 20'				16,000				800 s.f. @ \$20 s.f.
Concrete and epoxy paint				4,000				800 s.f. @ \$5 s.f.
Equipment, supplies, shelves, tools, signage				9,500				See 5
<i>Total</i>				<i>78,500</i>				

**Table 3. Version 1
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes
<u>Capital Costs - Collection Facility "4"</u>								
Land					0			
Facility design & engineering					4,000			See 2
Permit assistance, application fees					3,000			See 3
Site dev., utilities, access, paving, security fencing					17,000			See 4
Pre-fabricated storage unit (3-bay)					25,000			
Canopy 40' x 20'					16,000			800 s.f. @ \$20 s.f.
Concrete and epoxy paint					4,000			800 s.f. @ \$5 s.f.
Equipment, supplies, shelves, tools, signage					9,500			See 5
<i>Total</i>					78,500			
<u>Subtotal, Capital Costs</u>	0	78,500	78,500	78,500	78,500	0	0	
<u>Operational Assumptions</u>								
Number of events at facility "1"			8	8	8	8	8	
Number of events at facility "2"				8	8	8	8	
Number of events at facility "3"					8	8	8	
Number of events at facility "4"						8	8	
Total number of collection events			8	16	24	32	32	
Special collection services			5	10	15	20	20	
Number of CESQGS			15	30	40	50	50	
Total number of participants (all facilities)			242	278	320	368	368	See 6
Total pounds per participant (all facilities)			35	35	35	35	35	See 7
Total pounds of waste, all sources			8,389	9,647	11,094	12,758	12,758	See 8

Table 3. Version 1
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes	
Operational Costs									
District staff: oversight, manage, promote		5,446	5,446	5,446	5,446	5,446	5,446	5,446	See 9
Promotion: flyers, paid newspaper advertising			1,500	1,500	1,500	1,500	1,500		See 10
On-site labor (local) at facilities									7 hrs/event @ \$20/hr
Event Manger			640	1,280	1,920	2,560	2,560		
Hazardous waste specialist (1.5)			960	1,920	2,880	3,840	3,840		
Non-waste technician			640	1,280	1,920	2,560	2,560		
Extra on-site labor (special collections)									\$20/hr
Manager			200	400	600	800	800		
Hazardous waste specialist			200	400	600	800	800		
Training of event staff to accept, sort, pack waste		5,000	3,500	3,500	3,500	3,500	3,500		
Additional training of facility staff to transport			250	500	750	1,000	1,000		
Medical monitoring			610	1,220	1,830	2,440	2,440		
Contract labor (chemist)			2,400	4,800	7,200	9,600	9,600		6 hrs/event @ \$50/hr
Travel per diem			560	1120	1680	2240	2240		\$70/day
Mileage			1,200	2,400	3,600	4,800	4,800		300 RT @ \$.50 mile
Travel time			1,344	2,688	4,032	5,376	5,376		6 hr trip @ \$28/hr
Overtime premium			112	224	336	448	448		Overtime by chemist
Personal Protective Equipment			840	1,680	2,520	3,360	3,360		\$15 each; 4.5/event
Other equipment (replacement costs)			500	1,000	1,500	2,000	2,000		See 11
Maintenance & facility repair			3,000	6,000	9,000	12,000	12,000		
Utilities			100	200	300	400	400		
Insurance			250	500	750	1,000	1,000		
Waste management & transportation			7,382	8,489	9,763	11,227	11,227		\$.88 per lb
DEQ Annual Compliance Fee			50	100	150	200	200		
Subtotal, Operational Costs	0	10,446	31,684	46,647	61,777	77,097	77,097		
Subtotal, Capital Costs	0	78,500	78,500	78,500	78,500	0	0		
Subtotal, all Costs		88,946	110,184	125,147	140,277	77,097	77,097		
15% Contingency		13,342	16,528	18,772	21,042	11,565	11,565		
Total, all Costs (including contingency)		102,288	126,712	143,919	161,319	88,662	88,662		

**Table 3. Version 1
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes
Revenue								
Grants								
2010 -11 DEQ HHW Facility Grant - Tier 1		47,875						See 12
Other								
Tipping Fee								See 13
Annual Rate Increase								See 14
User Fee			37,250	51,614	66,108	46,248	46,248	See 15
Reuse Table (Savings in waste disposal expenses)			1,661	1,910	2,196	2,526	2,526	See 16
In-Kind Donation (Haulers)								
Facility design & engineering		4,000	4,000	4,000	4,000			
Permit assistance, application fees		3,000	3,000	3,000	3,000			
Site Development		17,000	17,000	17,000	17,000			
Canopy 40' x 20' (800 s.f. @ \$20 s.f.)		16,000	16,000	16,000	16,000			
Concrete and Epoxy Paint		4,000	4,000	4,000	4,000			
15% Contingency		13,342	16,528	18,772	21,042	11,565	11,565	
Utilities			100	200	300	400	400	
Insurance			250	500	750	1,000	1,000	
In-Kind Donation (District)								
District staff: oversight, manage, promote		5,446	5,446	5,446	5,446	5,446	5,446	
Promotion: flyers, paid newspaper advertising			1,500	1,500	1,500	1,500	1,500	
Other Revenue								
District Funding - Solid Waste Surcharge			19,977	19,977	19,977	19,977	19,977	See 17
Total, revenue		110,663	126,712	143,919	161,319	88,662	88,662	
Total, all Costs (including contingency)	102,288	126,712	143,919	161,319	88,662	88,662		See 18

Table 3. Version 1
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):

Notes

1. There are two versions of this budget. Version One portrays one HHW collection facility added per year over the course of four years. Version Two portrays two HHW collection facilities added Year Two and two collection facilities added Year 4. Version Two utilizes the availability of DEQ HHW facility grant funding for 2010. After 2010, DEQ has no additional money budgeted for HHW grants and cannot be relied upon as a future funding source. All dollar figures are in year 2010 dollars. All costs are estimate and projections only. Actual costs, participation, and pounds of waste collected may vary significantly both from this projection, and from year to year.
2. Assumes land already available if sited appropriately.
3. Assumes District and County staff lead permit application effort.
4. Assumes utilities within 100 feet of site.
5. Includes safety shower, eye wash, spill kits, fire extinguishers, dolly, tables, and cabinets.
6. Participant event average from 2002-2010 was 242. Assumes a 15% increase in participation per additional facility.
7. Pounds per participant does not include paint. Assumes good latex paint will be recycled through the County's Latex Paint Recycling Program and other paint products (primarily oil based paint) will be handled through the state's PaintCare program.
8. Event average for 2006-10 was 8,389 lbs. Assumes a 15% increase in participation per additional facility.
9. 1 FTE \$54,460. The time required to manage this program is estimated at 10% of 1 FTE assuming most management functions are performed by existing transfer station staff.
10. Assumes significant use of free media.
11. Drums, totes, absorbent, lab chemicals, test kits.
12. Grant support may be sought from the Oregon DEQ to cover HHW facility expenses. Assumes one \$47,875 Tier-1 grant awarded from DEQ for 2010 to support the first HHW facility, which will be located in Lincoln City.
13. Assumes no tipping rate increase to support HHW program but a tipping rate increase may be added to help fund the HHW program. See Note 14 below.
14. Currently we have not included estimate for an annual rate increase to support HHW program. One of our options is to provide an amount for this program through the annual rate uniform rate reporting structure. This would spread that portion of the cost throughout the system. This is an option that will be explored by the District and County and Cities of Lincoln County.
15. This budget assumes a user fee will be included to help fund the permanent HHW collection system but this will depend on how each jurisdiction determines to fund their HHW program. If a user fee is included then those who use the system will have to pay at the time of drop off of their HHW. The user fee will be determined by the uniform rate structure and will include labor, operational and administrative expenses. The true cost per pound of HHW disposal is \$3.38 (+ \$1.98 if the 15% contingency is included making actual cost per pound of HHW disposal \$5.36). If the Solid Waste District's provides funding at current levels to support this permanent HHW collection system then the user fee can be reduced to approximately \$1.85 per pound making it much more financially feasible to users. The user fee reflected in this budget is not fixed but reflects the balance needed to fund the permanent HHW collection system. The budget does not also show resources from the rate structure which could further offset the amounts needed from a user fee. See note 14.
16. Assumes cost savings of up to 20% with a comprehensive waste reuse program, which other HHW programs have reported.

Table 3. Version 1
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):

17. Solid Waste District funding via the solid waste surcharge will be used to subsidize the program. The average District Funding from 2002-2010 is \$19,977. Assumes annual District funding will be \$19,977.

18. Total average annual operating cost for all four facilities is \$88,662. Average annual operating cost per facility is \$22,165.

**Table 3. Version 2
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes
<u>Capital Costs - Collection Facility "1"</u>								
Land		0						
Facility design & engineering		4,000						See 2
Permit assistance, application fees		3,000						See 3
Site dev., utilities, access, paving, security fencing		17,000						See 4
Pre-fabricated storage unit (3-bay)		25,000						800 s.f. @ \$20 s.f.
Canopy 40' x 20'		16,000						800 s.f. @ \$5 s.f.
Concrete and epoxy paint		4,000						See 5
Equipment, supplies, shelves, tools, signage		9,500						
<i>Total</i>		<i>78,500</i>						
<u>Capital Costs - Collection Facility "2"</u>								
Land		0						
Facility design & engineering		4,000						See 2
Permit assistance, application fees		3,000						See 3
Site dev., utilities, access, paving, security fencing		17,000						See 4
Pre-fabricated storage unit (3-bay)		25,000						800 s.f. @ \$20 s.f.
Canopy 40' x 20'		16,000						800 s.f. @ \$5 s.f.
Concrete and epoxy paint		4,000						See 5
Equipment, supplies, shelves, tools, signage		9,500						
<i>Total</i>		<i>78,500</i>						
<u>Capital Costs - Collection Facility "3"</u>								
Land				0				
Facility design & engineering				4,000				See 2
Permit assistance, application fees				3,000				See 3
Site dev., utilities, access, paving, security fencing				17,000				See 4
Pre-fabricated storage unit (3-bay)				25,000				800 s.f. @ \$20 s.f.
Canopy 40' x 20'				16,000				800 s.f. @ \$5 s.f.
Concrete and epoxy paint				4,000				See 5
Equipment, supplies, shelves, tools, signage				9,500				
<i>Total</i>				<i>78,500</i>				

**Table 3. Version 2
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes
Capital Costs - Collection Facility "4"								
Land				0				
Facility design & engineering				4,000				See 2
Permit assistance, application fees				3,000				See 3
Site dev., utilities, access, paving, security fencing				17,000				See 4
Pre-fabricated storage unit (3-bay)				25,000				
Canopy 40' x 20'				16,000				800 s.f. @ \$20 s.f.
Concrete and epoxy paint				4,000				800 s.f. @ \$5 s.f.
Equipment, supplies, shelves, tools, signage				9,500				See 5
<i>Total</i>				78,500				
Subtotal, Capital Costs	0	157,000	0	157,000	0	0	0	
Operational Assumptions								
Number of events at facility "1"	8	8	8	8	8	8	8	
Number of events at facility "2"	8	8	8	8	8	8	8	
Number of events at facility "3"			8	8	8	8	8	
Number of events at facility "4"			8	8	8	8	8	
Total number of collection events	16	16	32	32	32	32	32	
Special collection services	10	10	20	20	20	20	20	
Number of CESQGS	30	30	50	50	50	50	50	
Total number of participants (all facilities)	278	278	368	368	368	368	368	See 6
Total pounds per participant (all facilities)	35	35	35	35	35	35	35	See 7
Total pounds of waste, all sources	9,647	9,647	12,758	12,758	12,758	12,758	12,758	See 8

**Table 3. Version 2
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes
Operational Costs								
District staff: oversight, manage, promote	5,446	5,446	5,446	5,446	5,446	5,446	5,446	See 9
Promotion: fliers, paid newspaper advertising		1,500	1,500	1,500	1,500	1,500	1,500	See 10
On-site labor (local) at facilities			1,280	1,280	2,560	2,560	2,560	7 hrs/event @ \$20/hr
Event Manger			1,920	1,920	3,840	3,840	3,840	
Hazardous waste specialist (1.5)			1,280	1,280	2,560	2,560	2,560	
Non-waste technician			1,280	1,280	2,560	2,560	2,560	
Extra on-site labor (special collections)								\$20/hr
Manager			400	400	800	800	800	
Hazardous waste specialist			400	400	800	800	800	
Training of event staff to accept, sort, pack waste	5,000		3,500	3,500	3,500	3,500	3,500	
Additional training of facility staff to transport			500	500	1,000	1,000	1,000	
Medical monitoring			1,220	1,220	2,240	2,240	2,240	
Contract labor (chemist)			4,800	4,800	9,600	9,600	9,600	6 hrs/event @ \$50/hr
Travel per diem			1,120	1,120	2,440	2,440	2,440	\$70/day
Mileage			2,400	2,400	4,800	4,800	4,800	300 RT @ \$.50 mile
Travel time			2,688	2,688	5,376	5,376	5,376	6 hr trip @ \$28/hr
Overtime premium			224	224	448	448	448	Overtime by chemist
Personal Protective Equipment			1,680	1,680	3,360	3,360	3,360	\$15 each; 4.5/event
Other equipment (replacement costs)			1,000	1,000	2,000	2,000	2,000	See 11
Maintenance & facility repair			6,000	6,000	12,000	12,000	12,000	
Utilities			200	200	400	400	400	
Insurance			500	500	1,000	1,000	1,000	
Waste management & transportation			8,489	8,489	11,227	11,227	11,227	\$.88 per lb
DEQ Annual Compliance Fee			100	100	200	200	200	
Subtotal, Operational Costs	0	10,446	46,647	46,647	77,097	77,097	77,097	
Subtotal, Capital Costs	0	157,000	0	157,000	0	0	0	
Subtotal, all Costs	167,446	46,647	46,647	203,647	77,097	77,097	77,097	
15% Contingency	25,117	6,997	30,547	11,565	11,565	11,565	11,565	
Total, all Costs (including contingency)	192,563	53,644	234,194	88,662	88,662	88,662	88,662	

**Table 3. Version 2
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Notes
Revenue								
Grants								See 12
2010 -11 DEQ HHW Facility Grant - Tier 1		47,875						
2010 -11 DEQ HHW Facility Grant - Tier 2		30,000						
Other								
Tipping Fee								See 13
Annual Rate Increase								See 14
User Fee								See 15
Reuse Table (Savings in waste disposal expenses)			17,114	86,114	46,248	46,248	46,248	See 16
In-Kind Donation (Haulers)			1,910	1,910	2,526	2,526	2,526	
Facility design & engineering		8,000		8,000				
Permit assistance, application fees		6,000		6,000				
Site Development		34,000		34,000				
Canopy 40' x 20' (800 s.f. @ \$20 s.f.)		32,000		32,000				
Concrete and Epoxy Paint		8,000		8,000				
15% Contingency		25,117	6,997	30,547	11,565	11,565	11,565	
Utilities			200	200	400	400	400	
Insurance			500	500	1,000	1,000	1,000	
In-Kind Donation (District)								
District staff: oversight, manage, promote		5,446	5,446	5,446	5,446	5,446	5,446	
Promotion: flyers, paid newspaper advertising		1,500	1,500	1,500	1,500	1,500	1,500	
Other Revenue								
District Funding - Solid Waste Surcharge		19,977	19,977	19,977	19,977	19,977	19,977	See 17
Total, revenue	0	196,438	53,644	234,194	88,662	88,662	88,662	See 18
Total, all Costs (including contingency)	0	192,563	53,644	234,194	88,662	88,662	88,662	

**Table 3. Version 2
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):**

Notes

1. There are two versions of this budget. Version One portrays one HHW collection facility added per year over the course of four years. Version Two portrays two HHW collection facilities added Year Two and two collection facilities added Year 4. Version Two utilizes the availability of DEQ HHW facility grant funding for 2010. After 2010, DEQ has no additional money budgeted for HHW grants and cannot be relied upon as a future funding source. All dollar figures are in year 2010 dollars. All costs are estimate and projections only. Actual costs, participation, and pounds of waste collected may vary significantly both from this projection, and from year to year.
2. Assumes land already available if sited appropriately.
3. Assumes District and County staff lead permit application effort.
4. Assumes utilities within 100 feet of site.
5. Includes safety shower, eye wash, spill kits, fire extinguishers, dolly, tables, and cabinets.
6. Participant event average from 2002-2010 was 242. Assumes a 15% increase in participation per additional facility.
7. Pounds per participant does not include paint. Assumes good latex paint will be recycled through the County's Latex Paint Recycling Program and other paint products (primarily oil based paint) will be handled through the state's PaintCare program.
8. Event average for 2006-10 was 8,389 lbs. Assumes a 15% increase in participation per additional facility.
9. 1 FTE \$54,460. The time required to manage this program is estimated at 10% of 1 FTE assuming most management functions are performed by existing transfer station staff.
10. Assumes significant use of free media.
11. Drums, totes, absorbent, lab chemicals, test kits.
12. Grant support may be sought from the Oregon DEQ to cover HHW facility expenses. Assumes one \$47,875 Tier-1 grant awarded from DEQ for 2010 to support the HHW facility in Lincoln City. Assumes one \$30,000 Tier-2 grant awarded from DEQ for 2010 to support the HHW facility in Waldport.
13. Assumes no tipping rate increase to support HHW program but a tipping rate increase may be added to help fund the HHW program. See Note 14 below.
14. Currently we have not included estimate for an annual rate increase to support HHW program. One of our options is to provide an amount for this program through the annual rate uniform rate reporting structure. This would spread that portion of the cost throughout the system. This is an option that will be explored by the District and County and Cities of Lincoln County.
15. This budget assumes a user fee will be included to help fund the permanent HHW collection system but this will depend on how each jurisdiction determines to fund their HHW program. If a user fee is included then those who use the system will have to pay at the time of drop off of their HHW. The user fee will be determined by the uniform rate structure and will include labor, operational and administrative expenses. The true cost per pound of HHW disposal is \$3.38 (+ \$1.98 if the 15% contingency is included making actual cost per pound of HHW disposal \$5.36). If the Solid Waste District provides funding at current levels to support this permanent HHW collection system then the user fee can be reduced to approximately \$1.85 per pound making it much more financially feasible to users. The user fee reflected in this budget is not fixed but reflects the balance needed to fund the permanent HHW collection system. The budget does not also show resources from the rate structure which could further offset the amounts needed from a user fee. See note 14.
16. Assumes cost savings of up to 20% with a comprehensive waste reuse program, which other HHW programs have reported.

Table 3. Version 2
Lincoln County Permanent Household Hazardous Waste Management Planning Project
7-Year Cash Flow Projection (see Note 1):

17. Solid Waste District funding via the solid waste surcharge will be used to subsidize the program. The average District Funding from 2002-2010 is \$19,977. Assumes annual District funding will be \$19,977.

18. Total average annual operating cost for all four facilities is \$88,662. Average annual operating cost per facility is \$22,165.

**Household Hazardous Waste Management Plan, September 2010
Lincoln County, Oregon**

Attachment 4. Project Calendar

Task or Activity	Begin Date	End Date
Hold coordination meeting with all interested parties	Aug 2009	Dec 2010
Update Lincoln County HHWMP	Aug 2009	Oct 2010
Submit updated LCHHWMP to DEQ for review	Mar 2010	Oct 2010
Seek County approval of updated LCHHWMP	Sep 2010	Sep 2010
Submit County approved HHWMP to DEQ for approval	Oct 2010	Oct 2010
Submit grant to DEQ for facility "1" funding	Oct 2010	Oct 2010
Solicit bids & submit draft designs of facility "1" to DEQ	Mar 2011	June 2011
Solicit bids for operation services & disposal to DEQ	Mar 2011	June 2011
Submit DEQ Transfer Stations permit addendum application	Mar 2011	June 2011
Prepare all other permits & get necessary approvals	Mar 2011	June 2011
Design & implement public info campaign	June 2011	Sep 2011
Select contractor to manage waste	July 2011	July 2011
Begin site preparation & construction of facility "1" site	Aug 2011	Aug 2011
Design & implement public info campaign	June 2011	Sep 2011
Staff training	Oct 2011	Dec 2011
Approve, implement & begin collection of fee	Dec 2011	Mar 2011
Submit semi-annual Project Progress Report to DEQ	Dec 2011	Dec 2011
Begin operations at facility "1"	Jan 2012	
Submit Construction Completion Report to DEQ	Feb 2012	Feb 2012
Solicit bids for operation services & disposal to DEQ	Mar 2012	June 2012
Submit DEQ Transfer Stations permit addendum application	Mar 2012	June 2012
Prepare all other permits & get necessary approvals	Mar 2012	June 2012
Begin operations at facility "2"	Jan 2013	
Submit Annual Follow-up Progress Report to DEQ	Feb 2013	Feb 2013
Begin operations at facility "3"	Jan 2014	
Submit Annual Follow-up Progress Report to DEQ	Feb 2014	Feb 2014
Begin operations at facility "4"	Jan 2015	
Submit Annual Follow-up Progress Report to DEQ	Feb 2015	Feb 2015
Submit Annual Follow-up Progress Report to DEQ	Feb 2016	Feb 2016
Submit the Final Annual Follow-up Progress Report to DEQ for facility "1"	Feb 2017	Feb 2017