Thurston County Solid Waste Management Plan

Working together to preserve and enhance the quality of our community’s environment.

Thurston County Solid Waste Mission Statement

To provide quality, timely and responsible service to the residents of Thurston County in the most cost-effective manner.

Thurston County Mission Statement
ACKNOWLEDGMENTS

The Thurston County Solid Waste Management Plan was prepared by a team consisting of Thurston County Solid Waste staff, the Solid Waste Advisory Committee, and the Maul Foster & Alongi consultant team. Throughout the develop of the SWMP, the individuals involved dedicated an extensive amount of time and energy in formulating recommendations, discussing approaches, and reviewing the document. Thurston County would like to acknowledge the following individuals for their dedication in the preparation and production of this document.

Thurston County Staff
Scott Schimelfenig
Scott Clark
Terri Thomas

Plan Review Committee
Joe Hyer, City of Olympia
Robert Macleod, Thurston County Commissioner
Jason Hearn, City of Lacey
Karen Valenzuela, City of Tumwater
Robert Scribner, City of Tenino
Russ Hendrickson, City of Yelm
Rusty Howell, District #1
Burton Gutman, District #2
Bill McGregor, Port of Olympia
Delroy Cox, Refuse Industry
Diana Wall, Recycling Industry
Ursula Euler, City of Olympia

Maul Foster & Alongi, Inc.
Neil Alongi
Erik Bakkom
Amy Dvorak

Bell and Associates
Chris Bell

Zia Engineering & Environmental Consultants, LLC
Richard Hertzberg

Contact Information
Thurston County Solid Waste
9605 Tilley Road SW
Olympia, WA 98512-9140

Front office phone: (360) 867-2300
Fax: (360) 867-2291

Central e-mail address (e-mail messages will be forwarded to the appropriate personnel):
WWM-webmaster@co.thurston.wa.us

Thurston County Waste Line:
(360) 786-5494
The waste projections contained in this Cost Assessment have been revised from the System Assessment to reflect current conditions and are based on the year end data for 2008. However, it is important to note that it is not possible to evaluate the current trend with a single year of information. This stresses the importance of the County’s ability to utilize the recommendations of the SWMP with consideration to the current staffing and funding requirements, which are changing continually.

The actions recommended within the SWMP are meant to generally guide activities conducted by Thurston County Solid Waste, however they must also be regularly reviewed and adjusted based on current needs and funding. Due to the recession and the decrease in waste volume, revenues for the department have decreased. However, the decreased volume has also reduced the need for additional disposal capacity. These changes do not require a revision of the overall SWMP and/or System Assessment. The schedule for the capital facilities recommended by the System Assessment needs to be considered to be longer than what is shown in the planning tool (System Assessment, Figure 6-1) due to the decreased waste tonnage. The future need for a new transfer station will be evaluated annually by comparing the year-end tonnage to the planning tool.

PREPARATION NOTE

The Solid Waste System Assessment that contains Thurston County’s population and waste projections was completed at the end of 2007. This Solid Waste Management Plan (SWMP) was begun in early 2008 and is based on the projections contained within the System Assessment. Beginning in 2007 and continuing through 2008 and 2009, Thurston County and the rest of the nation have slid into a serious recession. The recession has led to a significant change in waste generation habits, reducing disposal volumes by 10 to 20%.

The waste projections contained in this Cost Assessment have been revised from the System Assessment to reflect current conditions and are based on the year end data for 2008. However, it is important to note that it is not possible to evaluate the current trend with a single year of information. This stresses the importance of the County’s ability to utilize the recommendations of the SWMP with consideration to the current staffing and funding requirements, which are changing continually.
CONTENTS
INTRODUCTION
1
THE SOLID-WASTE MANAGEMENT SYSTEM
3
ACTION PLAN
15
SUPPORT OF LOCAL AND REGIONAL PLANS
21
APPENDICES
APPENDIX A - SOLID WASTE SYSTEM ASSESSMENT
APPENDIX B - ACTION PLAN OBJECTIVES AND ACTIONS
APPENDIX C - RCW 70.95090 REQUIREMENTS
APPENDIX D - WASTE SERVICES CONTACT INFORMATION
APPENDIX E - WASTE SERVICES MAP (WUTC DISTRICTS)
APPENDIX F - COST ASSESSMENT
APPENDIX G - INTERLOCAL AGREEMENTS & RESOLUTIONS OF ADOPTION
APPENDIX H - SEPA REVIEW
APPENDIX I - RESPONSE TO ECOLOGY COMMENTS
APPENDIX J - SWAC PARTICIPATION

ACRONYMS AND ABBREVIATIONS
<table>
<thead>
<tr>
<th>County</th>
<th>Thurston County</th>
</tr>
</thead>
<tbody>
<tr>
<td>C/D</td>
<td>Construction and Demolition Waste</td>
</tr>
<tr>
<td>LeMay</td>
<td>LeMay Enterprises, Inc.</td>
</tr>
<tr>
<td>MRW</td>
<td>Moderate-Risk Waste</td>
</tr>
<tr>
<td>MSW</td>
<td>Municipal Solid Waste</td>
</tr>
<tr>
<td>RCW</td>
<td>Revised Code of Washington</td>
</tr>
<tr>
<td>SWAC</td>
<td>Solid Waste Advisory Committee</td>
</tr>
<tr>
<td>SWMP</td>
<td>Solid Waste Management Plan</td>
</tr>
<tr>
<td>System Assessment</td>
<td>The Solid Waste System Assessment</td>
</tr>
<tr>
<td>WARC</td>
<td>Waste and Recovery Center</td>
</tr>
<tr>
<td>TC SW</td>
<td>Thurston County Solid Waste</td>
</tr>
</tbody>
</table>
INTRODUCTION

Thurston County Solid Waste (TCSW) is charged with administering systems to handle solid waste produced in the county and with responding to the needs of all county residents for various solid waste-management services. In carrying out its responsibilities, TCSW must comply with state and federal laws while striving to maintain the highest standards for protecting human health and the environment, including groundwater, surface water (such as rivers and streams), soil, and air.

TCSW and the Thurston County Solid Waste Advisory Committee (SWAC) have prepared this Solid Waste Management Plan (SWMP) and the Action Plan presented in Section 3 to proactively meet the needs of the county’s residents and businesses. The Action Plan was developed cooperatively by TCSW and the SWAC by considering the priorities of the County’s solid waste system, as identified in Appendix A, the Solid Waste System Assessment (the System Assessment). The System Assessment describes current solid waste practices (covering disposal, collection, recycling, composting, reuse, moderate risk waste, education, and administration), estimates future demands on the system, and describes ways in which TCSW can address those demands.

The Action Plan in Section 3 is intended to guide the future management of solid waste in Thurston County, and the SWAC has tried to make the plan easily accessible and understandable to the public. In addition, TCSW emphasizes that the Action Plan should contain specific, measurable goals that are achievable in the near future so that progress toward these goals can be readily evaluated.
The Action Plan offers a concise summary of the current solid waste management system, followed by a discussion of recommended objectives and actions. Previous SWMPs have portrayed individual solid waste system components in great detail, with recommendations for improvement provided at the end of each discussion. The previous plans often resulted in a segmented understanding of the system, in contrast to the more comprehensive, integrated portrait undertaken in this plan that shows how the system elements are interconnected and how they impact one another.

1.1 PLANNING PERIOD

The Action Plan provides guidance for development of the system for short-term (six years) and longer-term (20 years) planning periods as identified in this document and its appendices, including the System Assessment (Appendix A) and the Planning Tool. The SWAC and TCSW intend to revisit the Action Plan annually to assess progress and to update the plan in five years (by 2014) to identify new actions as required in Revised Code of Washington (RCW) 70.95.110.

1.2 COOPERATION WITH STATE AND LOCAL PLANS

The Action Plan has been developed with due consideration of state and local SWMPs. It was designed to support the goals of the State’s Beyond Waste Plan (Washington State Department of Ecology [Ecology], 2004) wherever possible, as discussed in detail in Section 4. In addition, ideas contained in the City of Olympia’s Toward Zero Waste Plan (City of Olympia, 2007) have been incorporated in the Action Plan through active participation by the City’s SWAC member and by the Waste Resources program manager. Ecology staff have reviewed the Plan to ensure that the Thurston County Solid Waste Management Plan meets all applicable, statewide requirements. A copy of the letter in response to Ecology comments has been included as Appendix I.

1.3 REGULATORY PURPOSE

TCSW has developed this Action Plan to be considered, along with several supporting documents, to fulfill the State of Washington requirements under RCW 70.95.090 for the preparation of a comprehensive SWMP, as well as Ecology’s SWMP guidelines (Ecology, 1999). The supporting documents and regulatory compliance are exhibited in the following:

- Appendix A- Solid Waste System Assessment
- Appendix B - Action Plan Objectives and Actions
- Appendix C - RCW 70.95090 requirements
- Appendix D - Waste Services Contact information
- Appendix E - Waste Services Map (WUTC Districts)
- Appendix F - Cost Assessment
- Appendix G - Interlocal Agreements & Resolutions of Adoption
- Appendix H - SEPA Review
- Appendix I - Response to Ecology Comments
- Appendix J - SWAC Participation
2 THE SOLID-WASTE MANAGEMENT SYSTEM

This section describes the County’s solid waste management system as background for understanding the improvements recommended in the Action Plan. The information contained in this section generally describes:

- The movement of waste materials within the county
- The generation of waste materials and trends in generation
- Administration of the solid waste management system
- Solid-waste facilities within the county system
- Programs to divert material from landfill disposal

A more detailed description of each of these system elements is presented in the System Assessment (Appendix A).

2.1 WASTE MATERIAL MANAGEMENT IN THURSTON COUNTY

The terminology used to describe solid waste can be confusing, especially since much of the material that is waste in one sense—that is, those who generate it don’t want it—is not waste in the sense that it may still have value to someone else or at least can be recycled into useful material. The following flow chart shows the structure of the solid waste management system and its terminology.

As the flow chart shows, materials that are no longer useful to their current owners constitute solid waste, commonly called municipal solid waste (MSW). However, this material has three possible fates. Items that may be useful or valuable to another may be diverted for reuse. Those made of materials that can be remade for some other purpose can be recycled. So only materials that have no remaining use or value need be disposed of in a landfill—these are referred to as garbage or refuse. Naturally, a major goal of TCSW, in addition to waste reduction, is to decrease the disposal rate by establishing efficient mechanisms for diverting materials for reuse or recycling, leaving an absolute minimum of garbage to be landfilled.

Waste materials are collected and managed in a variety of ways. The following discussion is a brief summary of material management methods in the county.
2.1.1 SOLID WASTE MANAGEMENT

County residents generally dispose of their garbage either by placing trash cans at the curb in front of their houses or bringing accumulated material to County-owned sites. All of this material is ultimately transported to the transfer station at the County’s Waste and Recovery Center (WARC) in northeastern Lacey. Commercial entities (businesses, institutions, and government) have similar options.

Residential and commercial waste-collection services are regulated by the Washington Utilities and Transportation Commission. State law allows municipalities to offer their own collection services or for collection to be provided by a certified hauler. In Thurston County, collection services are offered by the City of Olympia within city boundaries, and by LeMay Enterprises, Inc. (LeMay), and its subsidiaries outside those boundaries. Waste from state governmental offices in the capitol campus are hauled by the General Administration department.

TCSW determines the minimum service that the LeMay owned haulers must offer to residents of the county; however, it does not provide or set rates for curbside garbage and recycling services.

TCSW also owns, operates, and sets rates for all of the waste-handling facilities—three drop-box facilities (at Rochester, Rainier, and Summit Lake) and the WARC (public drop-box site and transfer station).

MSW that arrives at the WARC is dumped onto the floor of the transfer station where it is then loaded into transfer containers. The transfer containers accommodate a large volume of waste and are easily transported to the landfill by truck or train. Thurston County’s waste is transported by truck to Centralia and then by train 250 miles away to the Roosevelt Regional Landfill in Klickitat County, a facility owned and operated by Rabanco, a subsidiary of Allied Waste Industries, Inc.


Thurston County is bordered by several counties, most notably Pierce, Lewis, and Mason Counties, which have significantly higher disposal fees. These counties use the extra revenue to support necessary infrastructure and programs such as waste reduction, reuse, and recycling. Because of Thurston County’s lower disposal rates, there may be a certain amount of waste coming into the County’s solid waste system from other counties. With an increase in tip fees to better match the surrounding counties’ tip fees, Thurston County could reduce the incentive for out-of-county waste. However, this reduction of out-of-county waste may also reduce Thurston County’s out-of-county revenues. A rate increase would result in additional funds that could support county services such as:

- Additional TCSW waste education staff working to achieve the goals of this Action Plan,
- Development Services staff providing Green Building assistance,
- In-house Sustainability Coordinator and Resource Conservation Manager,
- Resource Stewardship staff providing Green Building assistance.

500 B.C.

The city of Athens organizes the first municipal dump in the Western world. Citizens are required to dispose of their waste at least one mile from the city walls.

Garbage or Refuse: Solid waste disposed of in a landfill or other nonproductive use. For the purposes of this report, garbage means materials that are transported to the Roosevelt Landfill for disposal.

System Update: Harold LeMay Enterprises was purchased in August 2008 by Waste Connections, Inc. of Folsom, California.

Construction and demolition waste (C/D) may be brought to the WARC for disposal. A portion of this material is processed by the facility operator to recover certain high-value recyclables, and the residue is transported to the Roosevelt Regional Landfill for disposal.

Asbestos may also be brought to the WARC, by appointment. Because of its hazardous nature, this material is segregated and transported to the Roosevelt Regional Landfill for disposal in the landfill’s designated asbestos area.

2.1.2 MATERIAL RECYCLING

Paper, plastics, metals, and glass recycling service is available to all residents and businesses in the county. Curbside residential recycling service is automatically offered to residents who subscribe to curbside trash pickup service. Recycling services for businesses must be subscribed to as a service separate from garbage service.

In 2006, the County adopted a new ordinance specifying the minimum level of recycling service and requiring that residential recyclables be mixed together, or commingled, in a single container at the curb, except for glass, which is kept separate. Commercial recycling services that are offered to businesses may vary with the service provider.

2.2 WASTE-STREAM DESCRIPTION

Waste disposal is a basic indicator of the consumption habits of county residents, businesses, institutions, and government entities. In spite of significant success with reuse and recycling efforts to divert material from landfill disposal, the county has experienced a steady increase in refuse, growing by almost 3% per person on an annual basis between 2000 and 2006.

As a result of the System Assessment, TCSW expanded the organics composting program in 2008 to include food waste and compostable paper with the original yard-waste program that is offered curbside and at the WARC. After initial processing at the WARC to remove large woody debris, the waste is sent to the Silver Springs compost facility. The woody debris is either chipped and composted or sent to a facility that burns the wood for energy recovery (e.g., to run boilers).

County residents have historically had access to recycling of computer monitors, hard drives, and televisions at a drop-off center at the WARC. Implementation of the states product stewardship requirement for manufacturers through Electronic Waste Law Engrossed Substitute Senate Bill 6428 has increased the number of sites countywide to six.
and 2007. In comparison, waste generation per capita in the United States as a whole remained relatively stable, decreasing by one quarter of one percent on an annual basis during the same timeframe. Table 2-1 summarizes the county’s overall waste generation between 1999 and 2007.

**TABLE 2-1 WASTE SUMMARY 1999-2007**

<table>
<thead>
<tr>
<th>Year</th>
<th>County Wide</th>
<th>Total Recycling (Tons/year, Ecology)</th>
<th>Total Diversion (Tons/year, Ecology)</th>
<th>Total Disposal (Tons/year, County)</th>
<th>Per Capita Waste Generation</th>
<th>Disposal (lb/person/year)</th>
<th>Waste Generation (lb/person/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td></td>
<td>69,091</td>
<td>3,643</td>
<td>144,803</td>
<td></td>
<td>1,429</td>
<td>2,146</td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td>82,597</td>
<td>43,796</td>
<td>149,842</td>
<td></td>
<td>1,464</td>
<td>2,699</td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td>77,255</td>
<td>37,324</td>
<td>152,174</td>
<td></td>
<td>1,448</td>
<td>2,538</td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td>108,056</td>
<td>67,580</td>
<td>162,731</td>
<td></td>
<td>1,533</td>
<td>3,188</td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td>72,618</td>
<td>78,133</td>
<td>174,772</td>
<td></td>
<td>1,627</td>
<td>3,031</td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td>105,033</td>
<td>107,331</td>
<td>178,788</td>
<td></td>
<td>1,637</td>
<td>3,580</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td>188,860</td>
<td>113,645</td>
<td>175,944</td>
<td></td>
<td>1,570</td>
<td>4,270</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>116,549</td>
<td>193,169</td>
<td>190,837</td>
<td></td>
<td>1,652</td>
<td>4,332</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>104,068</td>
<td>85,766</td>
<td>196,221</td>
<td></td>
<td>1,649</td>
<td>3,244</td>
</tr>
</tbody>
</table>

1 Ecology recycling information is derived from annual recycling survey results provided by Washington Ecology.
2 Ecology diversion information is derived from annual recycling survey results provided by Washington Ecology.
3 County disposal information is MSW from Thurston County financial tracking database used to monitor transactions at the scale house at the disposal facility. Prior to 2005, total disposal numbers may not reflect materials recovered at the WARC.
4 Per Capita Waste Generation = (Disposal + Diversion + Recycling) / Population

TCSW must plan for future increased demand for both the recycling and disposal capacity of the county solid waste system. Demands on the system will continue to increase because of population growth and changes in purchasing and consumption habits in all sectors. Population growth in the county is generally unavoidable, so TCSW must plan for the increased demand that growth places on the solid waste management system.

In 2004, a study of the composition of refuse received at the transfer station was completed for TCSW (Green Solutions, 2005). The study was performed by taking random samples from the waste stream entering the transfer station (prior to any recovery activities at the transfer station sorting line) and hand-sorting them into several material categories. The results are described in detail in Figure 2-1. The largest portion—paper, plastics, metal, and glass—made up a combined total of 43 percent of the waste stream by weight. C/D debris and wood waste, which has significant monetary and recycling/reuse value, accounted for 23 percent by weight, and organic materials made up another 23 percent by weight. Other wastes and special waste streams made up the remaining...

**System Update:**

Due to an economic slowdown in 2008, the amount of waste received at the WARC is projected to decrease by up to 10% when compared to 2007. This is consistent with trends observed across the U.S.
About one quarter of the C/D and wood in the waste stream is separated in the WARC and recycled. TCSW accepts the following materials as moderate risk waste (MRW) at collection events in the county and at the HazoHouse facility located at the WARC: auto products; paints; thinners and solvents; pesticides; glues and adhesives; batteries; solvents and cleaning supplies; pool and hobby chemicals; fluorescent light tubes; contaminated kerosene and gasoline; propane tanks; used motor oil; and products containing mercury. MRW is picked up by a hazardous waste contractor and hauled to a permitted treatment and disposal facility in accordance with federal regulations. In 2007, the County’s MRW program successfully diverted several hundred tons of hazardous materials from the landfill and from over 16,000 people. This included 370 tons from the permanent HazoHouse facility at the WARC and another 38 tons from the WasteMobile. MRW programs and policies such as these are addressed in a separate plan.

FIGURE 2-1. 2004 THURSTON COUNTY DISPOSED WASTE

MRW:
MRW is comprised of chemical materials that are poisonous, toxic, flammable, reactive, or corrosive. These products include but are not limited to pesticides, herbicides, mercury and mercury thermometers, some types of batteries, gasoline, kerosene, motor oil, antifreeze, oil-based paint, paint thinner, turpentine, pool chemicals, and drain cleaners. MRW is divided into two categories: household hazardous waste and small-quantity generator hazardous waste.

2.3 ADMINISTRATION AND MANAGEMENT

TCSW is responsible for the overall administration of the County’s solid waste system. This responsibility includes all facets of solid waste disposal services that are provided in the county, from general policy and planning for solid waste management to funding and final recycling or disposal of waste.

TCSW administers contracts for the transport and disposal of all solid waste collected in the county via the WARC; for operating the transfer station, yard-waste, and recycling areas of the WARC; for operating the County drop-box facilities; and for transporting and composting yard waste. Solid-waste management

Transfer Station:
A facility where wastes are transferred from smaller vehicles (cars, pickup trucks, contractor trucks, and collection vehicles) into larger transport trailers prior to movement to the landfill for disposal.
planning enables TCSW to define the issues at hand, determine the impacts of the project, evaluate the cost, and determine if the project is in the best interest of the county. After approving new programs, TCSW is also responsible for implementation of each program or for obtaining the service through contracts.

Each city in the county is responsible for providing solid waste services within its incorporated boundaries, but it may opt to administer its own solid waste and recycling program or defer to the County program. The City of Olympia currently administers its solid waste services through the Waste ReSources Utility, which is charged with ensuring that the city’s waste is properly managed and directly offers materials collection and management (residential and commercial garbage, residential recyclables, and residential yard waste). The cities of, Yelm, Tenino, Bucoda, and Rainier have contracted with LeMay for the collection of garbage, recyclables, and yard waste. The cities of Lacey and Tumwater receive collection services offered to unincorporated parts of the county, and so they defer to the County minimum service level ordinance.

TCSW develops policies and ordinances for managing solid waste. It generally develops drafts through consultation with the SWAC before taking a proposed policy to the general public for comment and to the County Board of Commissioners for approval. Solid-waste ordinances provide the basis for enforceable regulation in the county, such as establishing the minimum level of solid waste service provided to all residents and establishing what materials are acceptable in the waste stream. TCSW is responsible for implementing the County ordinances and resolutions as well as state laws and regulations regarding certain solid waste practices. TCSW also collects and reports solid waste information to Ecology.

TCSW is responsible for County-owned facilities, including the WARC and the three public drop-box facilities at Rochester, Summit Lake, and Rainier (see Figure 2-2). The WARC includes the public self-haul drop-box site and the transfer station.

TCSW also provides waste-prevention programs and education for residents, schools and businesses. These programs promote resource conservation through waste reduction, reuse, composting, recycling, and...
environmentally preferable purchasing. The programs are also the primary means through which TCSW communicates with the general public.

2.4 SURVEILLANCE AND ENFORCEMENT

Surveillance and enforcement at the WARC consists of several state and county ordinances addressed through education, signage and limited monitoring. The relevant ordinances include:

8.12.080 SPILLAGE FROM VEHICLES PROHIBITED.

All loads entering the Hawks Prairie Sanitary Landfill or transfer stations which are subject to dropping, sifting or blowing solid waste shall be covered with a tarp or other appropriate device to prevent solid waste from escaping from vehicles. An amount of fifty percent of the fee for depositing solid waste shall be charged on all loads which are not in compliance with this section. The effective date for this section shall be July 1, 1991 (Ord. 9679 § 9, 1990).

8.20.010, 8.20.020, 8.20.030 RESTRICTIONS ON OUT-OF-COUNTY GENERATED SOLID WASTE.

Effective July 1, 1988, solid waste generated outside of the territorial limits of Thurston County shall not be accepted for disposal at the Thurston County landfill. (Ord. 8927A § 1, 1988). Out-of-county disposal is not specifically monitored or enforced at the WARC.

However, if someone is turned away at the gate they may request a hearing before the Thurston County hearings examiner (Ord. 8927A § 3, 1988) which may also be appealed (Ord. 8927A § 4, 1988).

While the above ordinances can be difficult and costly to enforce, the County has taken the following measures:

- Provided literature regarding illegal dumping and litter.
- State patrol has monitored vehicles for overweight loads.
- Future installation of surveillance cameras (not intended for enforcement) may be used to identify vehicles that have removed their tarp prior to entering the WARC.

In the future, the County may choose to levy additional fees on vehicles which are not tarped; likewise the Environmental Health Department may provide additional resources for enforcement.
2.5 SOLID WASTE FACILITIES

In general, residential and commercial solid waste is collected and delivered to the WARC. The WARC operator segregates a limited amount of some higher-value recyclables from the garbage stream, and then loads the various materials (garbage and recyclables) into trailers for transport to recycling, composting, or disposal facilities.

Garbage and C/D debris from the county are disposed of at the Roosevelt Regional Landfill in Klickitat County, which is operated by Allied Waste, Inc. The landfill, which serves municipalities in Washington, Oregon, Alaska, British Columbia, and elsewhere, is estimated to have capacity available for more than 40 years at the current rate.

Various privately owned recycling facilities accept recyclable materials recovered from the waste stream or that are source-separated. Recycling facilities are located in Thurston County, the Puget Sound area, and the Portland metro area. Curbside recyclables collected in the county, as well as material recovered at the WARC, are taken to these private facilities for processing. Compostable materials are sent to the Silver Springs Organics facility near Tenino.

As identified in the System Assessment, the maximum amount of material that the WARC can handle is limited by the speed at which MSW can be loaded loosely into transfer trailers or into the compactor. The nominal design capacity of the transfer station is 190,000 tons per year. The transfer station managed 200,000 and 205,000 tons of waste in 2006 and 2007, respectively. The data indicate that TCSW should actively consider options for providing additional capacity, through increased recyclable recovery, additional disposal capacity, longer operating hours, or other methods. Also, in 2005 a contract amendment was administered between the County and Allied/Rabanco addressed inefficiencies in Transfer Station operational throughput, which extended the per ton capacity of the transfer station beyond the original capacity, as shown in Figure 2-3.

Recovery:
Refers to material removed from the waste stream for the purpose of recycling and/or composting.

“Piggeries” are developed. At these facilities, swine eat food waste. It is estimated that 75 pigs consume 1 ton of refuse per day.

FIGURE 2-3. WARC CAPACITY
Note: The graphic above illustrates the range for projected waste generation through 2030. However, due to the impacts of the economic recession, and subsequent decline in waste generation, the actual volume of waste is expected to trend on the low end of the predicted range.
2.6 GENERAL DIVERSION

MSW and recyclables are collected throughout the county by both private- and public-sector haulers. A clear understanding of waste disposal and recycling behavior as well as the materials disposed of is necessary for effective planning for waste reduction. For this reason, TCSW routinely performs a waste-characterization study (a waste sort) of MSW to understand the composition of the materials that are being discarded (that is, not separated for recycling or reuse). This information is then used by the County to identify opportunities for waste reduction.

To reduce the overall generation of garbage in the county, TCSW has a well-developed series of waste-diversion programs to promote recycling and reuse, with an emphasis on education. TCSW relies on three types of programs to reduce the amount of waste that is disposed of in the landfill:

Waste-reduction programs generally aim to reduce the amount of waste generated by residents and businesses, or to reduce the toxicity of the waste products. These programs often focus on educating the public about ways to avoid generating certain waste at all—for instance, by buying more durable or less toxic products, or purchasing products with less packaging.

Waste-reuse programs focus on educating the public and providing opportunities for reusing products by repairing, donating, or selling products that can still be used. Reusing products is more advantageous than recycling because items do not have to be reprocessed.

Waste recycling is the process of collecting certain materials, sorting them into marketable commodities, and remanufacturing them into products with full- or partially-recycled content. Equally important in this process is increasing the demand for recycled products—to ensure that there is a financial incentive for current and proposed recycling programs and collection. Past programs have focused on easily recycled products such as plastic containers and films, metal products, and paper; however, new markets have begun to develop for many other materials, such as yard waste, food waste, and construction materials.

Data regarding recycling show the impact of waste-diversion programs most clearly, since most of these materials are collected and weighed. The recycling data presented in Table 2-1 show that the TCSW program has steadily increased the amount of recycling and diversion.
reported to Ecology. However, as evidenced by the waste-sort and the continued increases in waste disposal, additional resources should be dedicated to diversion and recycling efforts.

The most significant waste-stream components identified in the waste sort are specifically targeted in this Action Plan with objectives and actions to reduce their generation and increase diversion over the planning period. As discussed in Section 2.2, this includes organics; C/D; and paper, plastic, metal, and glass.

2.6.1 ORGANICS RECYCLING

Organic material, such as yard debris, compostable paper, and food waste, makes up almost 23 percent of the total county waste stream going to disposal. This does not include the organic material composted at home, diverted to composting through curbside collection, and directly delivered to yard-waste collection areas. TCSW will target organics as materials with a significant potential for diversion; it has initiated several programs to increase organics recycling and intends to enhance these programs and increase participation over the next five years.

TCSW currently subsidizes the sale of two types of compost bins that are available to residents through the Master Gardeners / Master Composters program provided through Washington State University. This program also provides composting courses free to the public and regularly advertised in the TCSW quarterly Talkin' Trash newsletter, which is mailed to residents. Currently, composting programs are in place at several schools and commercial organizations in the county.

TCSW also funds a compost demonstration garden at the WARC. This and two other demonstration gardens in the county are maintained by the Master Gardeners and Master Composters associations.

Curbside organics collection is available in most of the county. The exceptions are small pockets in rural areas and are due to a lack of demand. Areas without current access can request service through their hauler, who will offer service as demand builds. Residents of Olympia can also bring their yard waste to the City of Olympia Yard Waste Drop-Off Center, and all county residents can dispose of yard waste by bringing it to the Silver Springs Organics where it is sorted and sent out for composting or energy recover as fuel in wood-fired boilers (hog fuel). In addition, all county residents can bring yard waste directly to WARC, however, food waste is not accepted.

The residential curbside organics collection program was enhanced in 2008 with the addition of food waste. To achieve successful participation in the program and to reach...
the program’s full diversion potential, TCSW will need to provide residential outreach and education of the public.

2.6.2 CONSTRUCTION AND DEMOLITION WASTE RECYCLING

The demolition and construction of structures by residents and the construction industry generates an enormous amount of waste including concrete, lumber, metal, brick, and shingles. This C/D waste accounted for 23 percent of the county’s disposed-of waste in 2004. Monitoring of waste received at the WARC indicates that the percentage of this C/D material increased significantly during the 2004-to-2007 construction boom, though it currently shows some signs of decreasing because of the weak housing market. Nevertheless, because C/D waste is such a large fraction of the total, reducing it is an important part of TCSW’s overall goal of reducing the per capita rate of waste disposal. The methods for increasing C/D recovery, reuse, and recycling focus on voluntary efforts to encourage more C/D recovery, as well as programs to encourage the building community to consider reusing and/or recycling before disposal.

Implementing changes to the waste-recycling practices in the construction industry should be a priority for the County. The current regional focus on sustainable processes has resulted in a higher demand for “green building” construction practices in both residential and commercial markets, making builders more receptive to the C/D recycling effort. Likewise, this approach supports both the State of Washington’s Beyond Waste goals and those described in the City of Olympia’s Waste ReSources Plan.

C/D recycling at job sites is as simple as ordering recycling bins, placing signs and training staff. Private C/D recycling facilities typically accept certain types of material, depending on their primary business (e.g., recycled concrete to aggregate manufacturers). Separating and transporting C/D materials to the different processors in the county can be time-consuming and a hurdle to large-scale acceptance in the building community. On-site separation of recyclable materials also requires dedicating space to accumulate different materials, space that may be hard to find on a

Construction and Demolition Waste: Those waste that are typically associated with the construction industry and considered ‘recyclable C/D’ include stone, concrete, brick, metal, lumber, and shingles.

23% of Thurston County’s garbage is Construction and Demolition waste, most of which is recyclable.

Implementing changes to the waste-recycling practices in the construction industry should be a priority for the County. The current regional focus on sustainable processes has resulted in a higher demand for “green building” construction practices in both residential and commercial markets, making builders more receptive to the C/D recycling effort. Likewise, this approach supports both the State of Washington’s Beyond Waste goals and those described in the City of Olympia’s Waste ReSources Plan.
tight site. However, the contractor may also consider the use of recycling facilities, such as Recovery One in Tacoma who will sort recyclables brought from construction sites. Most county haulers will transport construction waste to specified recycling facilities, including Recovery One, if proper notice is given.

2.6.3 PAPER, PLASTIC, METAL, AND GLASS RECYCLING

Paper, plastic, metal, and glass—the traditional materials collected in the curbside recycling programs—make up 43 percent of the solid waste stream received at the transfer station. Comparing the amount of these potential recyclables with the amount actually recovered from the waste stream shows that large amounts of these materials are still being disposed of as much of the material received has been contaminated so that it no longer has value for recycling. TCSW has a well-developed series of programs directed at recovering these materials prior to disposal; such programs generally aim to increase participation by residents and schools. Due to a focus on other waste reduction programs, TCSW staff have only been able to provide a minimal level of support to commercial businesses.

An active commercial waste assistance program has the ability to easily divert an 10 to 20% additional from garbage disposal, reducing demand on disposal facilities and extending the capacity of the WARC by several years.

The new ordinance referred to above, requiring commingled curbside collection as part of residential garbage-collection service, has resulted in a significant increase in the residential recycling rate.

LeMay has recently begun offering a new business recycling program called Certified Green. The program allows the business and LeMay staff to determine and select services for source-separated recyclables that the business typically generates in large quantities. Participation in the Certified Green program also helps businesses to qualify for the Thurston County Chamber of Commerce Green Business Award.

Evaluation of the waste sort, described in Section 2.2, with an emphasis on commercial solid wastes, indicates that there is a significant amount of recyclable material that is being disposed of. Paper, plastic, metals, and glass, materials that are easily recyclable, make up more than 60 percent of commercial garbage. By actively promoting business
recycling programs and providing assistance, TCSW may be able to recycle an additional 10 to 20 percent from the garbage stream. A reduction of this magnitude should extend the capacity of the WARC for several more years.

3  ACTION PLAN

As the first step in developing this Action Plan, TCSW prepared the System Assessment (Appendix A), which summarizes the solid waste system, estimates future demands on the system, critiques existing services and facilities, and summarizes a series of actions for further discussion. Thurston County staff and the SWAC evaluated the options presented in the System Assessment and developed the following priorities for system improvements:

1) Consistent tracking and reporting of solid waste data will facilitate a county-wide discussion of solid waste generation and enable TCSW to predict needs for changes in the system’s capacity.

2) The need for additional recycling and disposal facilities must be monitored and anticipated so as to provide adequate capacity and reliable service to residents and the commercial, industrial, and governmental sectors.

3) Increased attention to diversion and recycling programs represents the most sustainable way to lessen the demand for increased disposal capacity.

4) Recycling of traditional materials (paper, plastic, metals, glass) continues to be a priority for TCSW programs, with a particular focus on increasing services offered to the commercial, industrial, and governmental sectors.

5) Programs for organics recovery should be developed to take full advantage of new facilities in the county that can compost food waste and food-contaminated paper together with yard waste.

6) C/D waste represents a significant portion of the waste stream. A C/D recycling program should be developed cooperatively with builders’ organizations during the current downturn in the construction market, so that the programs can be adopted thoughtfully.

Based on these priorities and the evaluation of options by TCSW and the SWAC, a series of 17 objectives supported by 42 recommended actions was developed and organized into five major categories (see inset). The actions include (a) procedural and operational modifications to the WARC that the County can implement internally; (b) large-scale or long-term capital projects; and (c) policy initiatives requiring multiparty cooperation and coordination involving the County, the incorporated jurisdictions, and/or the private sector. These objectives and

ACTION PLAN CATEGORIES
A. Administration and Management
B. Solid Waste and Recycling Facilities
C. General Waste Diversion
D. Organics Recycling
E. Construction and Demolition Debris
actions are presented in Table 3-1 and are discussed in detail in Appendix B.

As part of this Action Plan, TCSW has developed a series of metrics, a metric being a statement defining the methods used to measure outcomes. These metrics, included in Appendix B, are an integral part of the Action Plan because they establish the basis for judging its success.

3.1 GOALS

The goals outlined here reflect realistic yet challenging targets to be implemented over the planning period. Results of the System Assessment and input by the SWAC have significantly influenced the establishment of these goals; the objectives and recommended actions presented in Table 3-1 should contribute to achieving them. Thus the goals provide assistance in determining the success of this SWMP and will influence future planning efforts.

Solid Waste and Recycling Facilities Goal: Ensure sufficient facilities to maintain capacity and access to resources/services throughout the system (see Figure 2-2).

TCSW must provide adequate capacity for managing solid waste generated in the county. Since public welfare will be jeopardized if the waste stream grows beyond the handling capacity of the transfer station, it is critical that TCSW actively track generation trends and continue to project future needs of the solid waste system, especially since the WARC transfer station has already exceeded its nominal design capacity.

General Waste Reduction Goal: Reduce per capita waste generation to 2005 levels and by the end of the planning period.

Reducing per capita waste generation to 2005 levels will be a positive indication that the trend of increasing waste disposal has been broken. This reduction will show that consumption habits are becoming more sustainable and will decrease the County’s reliance on a long-haul disposal option. Additionally, reducing per capita waste disposal is a very effective way to extend the useful life of the existing WARC transfer station, thus keeping waste-management costs to a minimum.

3.2 IMPLEMENTATION SCHEDULE

Table 3-1 presents an implementation schedule showing the objectives, recommended actions, and time frame.
<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADMINISTRATION / DATA MANAGEMENT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>A1. Track Data in Order to Evaluate Effectiveness of Programs, Policies, and Actions</strong></td>
<td>A1.a. Maintain and report waste landfilled per capita data; create a baseline for 2005. ✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>A1.b. Monitor annual system disposal for facility planning purposes and maintaining system capacity. ✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>A1.c. Continue to collect and monitor curbside, WARC, waste sort and DOE data for disposal/recycling of all commodities to track trends. ✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td></td>
<td>A1.e. Conduct waste sort in 2009 and 2013 to quantify types of materials being disposed and to inform SWMP implementation updates. ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td><strong>A2. Maintain Balance Between Solid Waste Program Responsibilities and Funding</strong></td>
<td>A2.a. Evaluate rates relative to solid waste, programs, staffing levels and capital improvements to ensure achievement of goals within this plan. ✓ ✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td><strong>SOLID WASTE AND RECYCLING FACILITIES</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B1.b. Explore feasibility for creation of IGA for use of the Centralia Transfer Station or jointly site a new facility to provide additional waste/recycling-handling capacity. ✓</td>
</tr>
</tbody>
</table>

1996

The nation reaches a 25 percent recycling rate. EPA sets a new recycling goal of 35 percent.
**TABLE 3-1 IMPLEMENTATION SCHEDULE,**

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>ACTIONS</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014 &amp; BEYOND</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B2.b. Modify existing public Z-wall to a “resource recovery” concept with voluntary recycling.</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B2.c. Create signage and literature for WARC users.</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B2.d. Establish a transaction fee to cover administration cost (scale and house billing).</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B2.e. Increase minimum weight for the transaction basis.</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B2.f. Accept credit and debit payment.</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B2.g. Round-up transaction charges to the nearest $1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td><strong>B3. Increase Diversion at WARC by Operator</strong></td>
<td>B3.a. Amend operation and disposal contracts for increased diversion opportunities.</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B4. Increase Recycling by Expanding Rochester and Rainier Drop Box Services</strong></td>
<td>B4.a. Add yard waste to drop-box sites and charge accordingly.</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B4.b. Add bulk recycling (appliances, electronics, large metal, C/D at drop-box sites.</td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GENERAL WASTE REDUCTION</strong></td>
<td>C1.a. Expand general education and outreach through media, presentations, events, billing inserts etc. for residential, commercial and multi-family sectors.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td><strong>C1. Increase Community Education and Program Development</strong></td>
<td>C1.b. Increase number of school presentations.</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C1.c. Increase assistance to schools with development, start-up and maintenance of waste diversion programs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>
### OBJECTIVES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C2.a. Promote private recycling/reuse locations and develop private sector/government partnerships for sites/programs.</td>
<td>✓ ✓ ✓ ✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3.b. Work with hauler to provide material commingling in the same manner as the residential mix where applicable (where there is not a large amount of paper) for program consistency, cost effectiveness, and space savings.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3.c. Implement a business assistance program.</td>
<td>✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C3.d. Consider mandatory commercial recycling if the recycling goal of a 15% increase is not met.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C4. Increase Consistency For Recyclables Collection County-Wide</td>
<td>C4.a. Work with haulers and City of Olympia to achieve consistency for recyclables collection among all jurisdictions for residential and commercial accounts to extent practical.</td>
<td>✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C5. Increase Effectiveness of E-waste Recycling Programs</td>
<td>C5.a. Evaluate and implement, as needed, additional recycling drop-offs for e-waste, with consideration of products not included in the producer take-back programs.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C6.b. Collaborate with Building Departments to encourage and promote green building standards and the use of C &amp; D recycling plans.</td>
<td>✓ ✓ ✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C6.c. Consider mandatory C/D recycling deposits if the recycling goal of a 15% increase is not met.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TABLE 3-1 IMPLEMENTATION SCHEDULE,**

EPA establishes a link between global climate change and solid waste management, showing that waste reduction and recycling help stop global climate change.
### OBJECTIVES

**C7. Increase Information for Reduction, Reuse, Recycling and Buying Recycled within Thurston County Government**

- **C7.a.** Serve as an example by implementing Thurston County's Sustainability Policy.
- **C7.b.** Provide web-based resources and implementation strategies for local jurisdictions and businesses to use as a template.

**C8. Increase Residential Curbside Participation and Recycling**

- **C8.a.** Evaluate mandatory residential curbside trash and recycling collection if the number of self-haulers does not decrease by 5%.

### GENERAL WASTE REDUCTION: ORGANICS RECYCLING

**D1. Increase Opportunities for Organics Recycling**

- **D1.a.** Establish use of WARC as food waste transfer site.
- **D1.b.** Add food waste to yard debris collection for residents.
- **D1.c.** Implement food waste collection program at schools and businesses; assist with set-up and training.

### GENERAL WASTE REDUCTION: C/D RECOVERY AND RECYCLING

**E1. Increase C/D Recovery**

- **E1.a.** Evaluate potential locations and partnerships for a regional C/D facility.
- **E1.b.** Establish C/D rates at the WARC to encourage mixed and source separated C/D recycling.
- **E1.c.** Increase recovery reimbursement to facility operator.

**E2. Increase Waste Reduction, Reuse, and Recycling for New Buildings and Remodels**

- **E2.a.** Promote available reuse opportunities and resources to the building community.

### TABLE 3-1 IMPLEMENTATION SCHEDULE

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C7. Increase Information for Reduction, Reuse, Recycling and Buying Recycled within Thurston County Government</strong></td>
<td>C7.a. Serve as an example by implementing Thurston County's Sustainability Policy.</td>
</tr>
<tr>
<td></td>
<td>C7.b. Provide web-based resources and implementation strategies for local jurisdictions and businesses to use as a template.</td>
</tr>
<tr>
<td><strong>C8. Increase Residential Curbside Participation and Recycling</strong></td>
<td>C8.a. Evaluate mandatory residential curbside trash and recycling collection if the number of self-haulers does not decrease by 5%.</td>
</tr>
<tr>
<td><strong>GENERAL WASTE REDUCTION: ORGANICS RECYCLING</strong></td>
<td>D1.a. Establish use of WARC as food waste transfer site.</td>
</tr>
<tr>
<td></td>
<td>D1.b. Add food waste to yard debris collection for residents.</td>
</tr>
<tr>
<td></td>
<td>D1.c. Implement food waste collection program at schools and businesses; assist with set-up and training.</td>
</tr>
<tr>
<td><strong>GENERAL WASTE REDUCTION: C/D RECOVERY AND RECYCLING</strong></td>
<td>E1.a. Evaluate potential locations and partnerships for a regional C/D facility.</td>
</tr>
<tr>
<td></td>
<td>E1.b. Establish C/D rates at the WARC to encourage mixed and source separated C/D recycling.</td>
</tr>
<tr>
<td></td>
<td>E1.c. Increase recovery reimbursement to facility operator.</td>
</tr>
<tr>
<td><strong>E2. Increase Waste Reduction, Reuse, and Recycling for New Buildings and Remodels</strong></td>
<td>E2.a. Promote available reuse opportunities and resources to the building community.</td>
</tr>
</tbody>
</table>
4 SUPPORT OF LOCAL AND REGIONAL PLANS

Local and regional solid waste planning efforts were important considerations in developing the County’s SWMP. The objectives and strategies outlined in the previous chapters were specifically selected and organized to align with the goals described in Washington State’s Beyond Waste program, as well as to accommodate the goals described in the City of Olympia’s Waste ReSources Plan. Table 4-1, following this document, summarizes how the County’s objectives support these plans.

4.1 STATE OF WASHINGTON BEYOND WASTE

The vision of the State of Washington’s Beyond Waste plan is to:

Transition to a society where waste is viewed as inefficient, and where most wastes and toxic substances have been eliminated. This will contribute to economic, social and environmental vitality.

The County’s SWMP, while structured differently than a statewide plan, reflects the vision and focuses on key initiatives in Beyond Waste. The primary initiatives are:

MOVING TOWARD BEYOND WASTE WITH INDUSTRIES

The goal of the Industries Initiative is to maintain the economic vitality of Washington State industries as we reduce wastes and toxic releases, and to increase the use of recyclable material. This initiative is supported by Objectives C3, C6, and C7 of this document.

REDUCING SMALL-VOLUME HAZARDOUS MATERIALS AND WASTE

The goal of this initiative is to increase progress toward eliminating the risks associated with products containing hazardous substances, including products and substances commonly used in residential and commercial settings. Objective C5, increase the effectiveness of e-waste recycling programs, will contribute directly toward progress on this initiative. TCSW’s Moderate Risk Waste Plan revision will strive to support a larger portion of this goal.

INCREASING RECYCLING OF ORGANIC MATERIALS

The goal of the Organic Materials Initiative is to create a closed-loop reuse and recycling system for organic materials that is effective and pervasive throughout the state. The County’s plan will support this initiative by providing infrastructure, partnerships, and educational material to improve progress toward this mutual goal (Objective D1).

MAKING GREEN BUILDING PRACTICES MAINSTREAM

The objective of this initiative is to increase green building practices throughout the state, to increase the use of reused and/or recycled building materials, and to expand overall knowledge.

Twenty years ago, almost 1,000 curbside recycling programs existed in the United States. Today there are more than 10,000 across the nation.
and awareness of green building resources. The County intends to actively promote green building policy as well as to develop the infrastructure and programs necessary to increase C/D recycling and reuse (see Objectives C6 and E2).

MEASURING PROGRESS TOWARD BEYOND WASTE
The objective of the Measuring Progress Initiative is to transition Ecology to a long-term data-tracking system that measures progress toward the Beyond Waste vision. The County will implement a similar process, to track progress on goals and infrastructure needs, as described in Objective A1.

4.2 CITY OF OLYMPIA WASTE RESOURCES PLAN
In 2006, the City of Olympia adopted a Zero Waste resolution, which resulted in development of its 2008-2013 Waste ReSources Plan with the following overarching goals:

- Reduce the overall waste created in Olympia.
- Increase the quantity of recyclable and compostable material diverted from the landfill.
- Manage Olympia’s waste stream responsibly.

The City of Olympia’s Waste ReSources Plan outlines several strategies to achieve these goals, which are linked with the County’s objectives and strategies described in the previous sections.

STRATEGY 1.1 ENCOURAGE WASTE REDUCTION
This strategy aims primarily to encourage waste reduction by targeting upstream production and downstream consumption and disposal practices. This will be accomplished by educating residential customers about personal waste reduction strategies and providing technical assistance to commercial waste generators, including businesses, government agencies, and other institutions. This strategy clearly aligns with the County’s General Waste Reduction Objectives C1, C3, C6, and C7, which provide educational resources and promote waste reduction policies and programs throughout the county.

STRATEGY 2.1 OPTIMIZE RECYCLING OF RESIDENTIAL WASTE
This strategy intends to increase residential recycling from 32 to 37 percent and eliminate paper from the residential garbage waste stream. Many of the objectives outlined in the County’s Action Plan under General Waste Reduction will assist in achieving this goal. Specifically, Objective C8, consideration for a mandatory recycling collection system, will support the City of Olympia’s residential recycling goals if needed.

STRATEGY 2.2 INCREASE RECYCLING OF COMMERCIAL WASTE
To increase recycling of commercial waste, the City of Olympia plans to work with commercial haulers and implement education and outreach programs. This approach overlaps significantly with the County’s Objective C3 and will likely include joint implementation.

Today, the U.S. recycles 32% of its waste, a rate that has almost doubled during the past 15 years.
STRATEGY 2.3 INCREASE DIVERSION OF ORGANICS

This plan calls for an increase in diversion of residential organics from 3,600 tons in 2005 to 4,600 tons in 2013, and to increase diversion of commercial organics from virtually zero tons in 2005 to 3,300 tons (excluding self-hauled material) in 2013. Objective D1 of the County’s Action Plan will provide a portion of the infrastructure, policies, and outreach programs needed to reach this goal.

STRATEGY 2.4 IMPROVE RECYCLING OF C/D

Improving recycling of C/D debris will significantly impact the overall waste-reduction goals in the City of Olympia’s plan. One of these strategies is to partner with the County and other jurisdictions and agencies to bring a Materials Recovery Facility to the South Puget Sound to process C/D debris. This option is further explored in this Action Plan in Objective E1a.

STRATEGY 3.1 ENSURE THAT RECYCLABLE MATERIALS ARE ACTUALLY RECYCLED AND THAT OPERATIONS ARE EFFECTIVE

The City of Olympia and the County could coordinate the implementation of this strategy as part of Objectives C3 and C4, increasing consistency and effectiveness among the commercial and residential sectors. In addition, this strategy considers requiring recyclers and haulers to report to the city on the types and quantities of recycled materials they collect.

---

### TABLE 4-1

<table>
<thead>
<tr>
<th>SWMP ACTIONS</th>
<th>BEYOND WASTE INITIATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moving Toward Beyond Waste with Industries</td>
</tr>
<tr>
<td></td>
<td>Reducing Small-Volume Hazardous Waste and Materials</td>
</tr>
<tr>
<td></td>
<td>Increasing Recycling of Organic Materials</td>
</tr>
<tr>
<td></td>
<td>Making Green Building Practices Mainstream</td>
</tr>
<tr>
<td></td>
<td>Measuring Progress Toward Beyond Waste</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>CITY OF OLYMPIA WASTE RESOURCES PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy 1.1 Encourage Waste Reduction</td>
</tr>
<tr>
<td>Strategy 2.1 Optimize Recycling of Residential Waste</td>
</tr>
<tr>
<td>Strategy 2.2 Increase Recycling of Commercial Waste</td>
</tr>
<tr>
<td>Strategy 2.3 Increase Diversion of Organics</td>
</tr>
<tr>
<td>Strategy 2.4 Improve Recycling of C/D</td>
</tr>
</tbody>
</table>

1Element numbers from Table 3.1