

# Lane County Solid Waste Management Plan 2019



Prepared for:  
Lane County Public Works  
Waste Management Division



Prepared by:  
Good Company, LLC Eugene OR

# Table of Contents

<b>ACKNOWLEDGMENTS .....</b>	<b>3</b>
<b>ACRONYMS AND DEFINITIONS.....</b>	<b>4</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>7</b>
<b>CHAPTER 1 – HOW IS WASTE MANAGED IN LANE COUNTY?.....</b>	<b>10</b>
AGENCY ROLES .....	10
FACILITIES AND SERVICES.....	12
FINANCIALS .....	17
CURRENT CHALLENGES .....	17
<b>CHAPTER 2 – A CHANGING VISION FROM SOLID WASTE RECOVERY TO MATERIALS MANAGEMENT .....</b>	<b>20</b>
CHANGING FROM RECOVERY OF WASTE TO REDUCING CONSUMPTION TO FIGHT CLIMATE CHANGE.....	20
MOVING FROM WHERE WE’VE BEEN TO OUR NEW VISION.....	22
<b>CHAPTER 3 – MANAGEMENT PLANNING PROCESS AND SUMMARY .....</b>	<b>24</b>
WHY A MANAGEMENT PLAN? .....	24
BUILDING ON PREVIOUS PLANNING WORK .....	24
MANAGEMENT PLANNING PROCESS .....	25
PUBLIC AND STAKEHOLDER INPUT .....	25
COMMON THEMES OF PUBLIC AND STAKEHOLDER INPUT.....	26
MAJOR FINDINGS FROM 2017 MANAGEMENT PLAN SUPPORT DOCUMENT .....	27
2019 MANAGEMENT PLAN DETAILS .....	29
<b>CHAPTER 4 – FUNCTIONAL FACILITIES .....</b>	<b>30</b>
<b>CHAPTER 5 – STRATEGIC MANAGEMENT .....</b>	<b>33</b>
<b>CHAPTER 6 – VALUABLE PARTNERSHIPS.....</b>	<b>37</b>
<b>CHAPTER 7 – EFFECTIVE PROGRAMS.....</b>	<b>38</b>
<b>CHAPTER 8 – SUSTAINABLE REVENUE.....</b>	<b>42</b>
<b>CHAPTER 9 – CONCLUSION.....</b>	<b>43</b>
<b>CHAPTER 10 – RESOURCES.....</b>	<b>44</b>

## Acknowledgments

Several individuals and external organizations contributed to this 2019 *Lane County Solid Waste Management Plan (SWMP)*. The primary work for the Management planning effort was performed by R3 Consulting Group, Incorporated (R3). As part of a multi-phase project, R3 conducted a review and evaluation of Lane County's current waste management system and the recommendations from the 2002 Lane County Solid Waste Management Plan, then conducted a public and stakeholder engagement process. Many of the findings and recommendations presented in R3's [Solid Waste Master Development: Phase 2 – Master Plan Support Document](#) and associated documents (see Chapter 10 – Resources for links) are consistent with and/or support stakeholder input received during the stakeholder engagement process.

Lane County would like to thank the following groups for their advice and expertise, without which this Management Plan would not have been possible:

- R3 Consulting Group
- City of Eugene
- City of Springfield

With the information developed by R3, Lane County, in conjunction with Good Company, developed this regional-looking SWMP to coordinate efforts of the County, its municipal partners, and other industry stakeholders. Good Company's authors of this plan include:

- Joshua Proudfoot, Principal
- Claudia Denton, Associate
- Andree Phelps, Associate



## Acronyms and Definitions

### Acronyms

<b>C&amp;D</b>	Construction and Demolition
<b>CEG</b>	Conditionally Exempt Generator
<b>CRS</b>	Central Receiving Station
<b>DEQ</b>	Oregon State Department of Environmental Quality
<b>EPA</b>	U.S. Environmental Protection Agency
<b>EPR</b>	Extended Producer Responsibility
<b>EPUD</b>	Emerald People's Utility District
<b>HHW</b>	Household Hazardous Waste
<b>JPA</b>	Joint Powers Authority
<b>MRF</b>	Material Recovery Facilities
<b>RRAC</b>	Resource Recovery Advisory Committee
<b>SML</b>	Short Mountain Landfill
<b>SWMP</b>	Solid Waste Management Plan
<b>UGB</b>	Urban Growth Boundary
<b>WMD</b>	Lane County Public Works Department Waste Management Division

### Definitions

**Anaerobic Digestion** – A series of biological processes in which microorganisms break down biodegradable material in the absence of oxygen. One of the end products is biogas, which is combusted to generate electricity and heat, or can be processed into renewable natural gas and transportation fuels.

**Biogas plant** – The name often given to anaerobic digesters that transform biomass waste into biogas (mainly methane and carbon dioxide) and digestate.

**Central Receiving Station (CRS)** – Lane County's Glenwood Transfer Station.

**Conditionally Exempt Generator (CEG)** – A business that generates no more than 220 lbs. of hazardous waste per month.

**Construction and Demolition (C&D)** – Debris, which typically consists of roadwork material, excavated material, demolition waste, construction/renovation waste, and site clearance waste.

**Consumption-Based Emissions Inventory** – Greenhouse gas emissions that come from the manufacturing of food, goods, and services that we buy in our local geographic boundary. Over half of Oregon's consumption-based emissions are created in other states and nations and are not included in the sector-based emissions inventories (compare to Sector-Based Emissions Inventory).

**Downstream** – Refers to the impacts or destination of a product or material after use.

**Emerald People's Utility District (EPUD)** – A Public Utility District in Oregon that serves customers in a 572 square mile area in a patchwork "donut" around the Eugene-Springfield metropolitan area.

**Extended Producer Responsibility (EPR)** – A concept where manufacturers and importers of products bear a significant degree of responsibility for the environmental impacts of their products throughout the product life-cycle, including upstream impacts inherent in the selection of materials for the products, impacts from manufacturers' production process itself, and downstream impacts from the use and disposal of the products.

**Hazardous Waste** – A waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment.

**Household Hazardous Waste (HHW) Collection Center** – Lane County's Household Hazardous Waste Collection Center is located at the Glenwood Central Receiving Station. It offers safe disposal of household hazardous wastes at no charge, by appointment only.

**Joint Powers Authority (JPA)** – A partnership or collaboration between similar agencies across separate local or state governments.

**Lane County General Fund** – The County's primary operating fund, which supports a multitude of the County's core services including public safety, public health and general government services such as elections, assessment & taxation and internal support services.

**Lane County Public Works Department Waste Management Division (WMD)** – One of eight divisions of Lane County Public Works Department. The WMD is responsible for the management of municipal solid waste in Lane County and is funded without tax revenues.

**Leachate Management** – Management of the liquid generated from rainfall and the natural decomposition of waste that is filtered through the landfill to a leachate collection system.

**Master Plan** – Synonymous with Management Plan. The R3 Consulting group named their research document using the term Master Plan. The Solid Waste Master Plan Development Phase 2-Master Plan Support Document is referred to here as R3 Master Plan Support Document

**Material Recovery Facilities (MRF)** – A specialized plant that receives, separates, and prepares recyclable materials for marketing to end-user manufacturers

**Mitigation** – Strategies, policies, programs, actions, and activities that, over time, will serve to avoid, minimize, or compensate for (by replacing or providing substitute resources) the impacts to or disruption of elements of the human and natural environment associated with the implementation of a plan or activity.

**Oregon State Department of Environmental Quality (DEQ)** – A State of Oregon agency with the mission to be a leader in restoring, maintaining, and enhancing the quality of Oregon's air, land and water.

**Post-MRF Residual Rate** – The fee charged for waste remaining after a qualifying MRF has sorted incoming waste to remove recyclable or recoverable materials and has completed the required reporting that establishes the facility's current recovery rate. See [Lane Manual Chapter 60.875](#).

**Product Stewardship** – An environmental management strategy that means whoever designs, produces, sells, or uses a product takes responsibility for minimizing the product's environmental impact throughout all stages of the products' lifecycle, including end-of-life management.

**Recovery Rate** – The Recovery Rate, or Material Recovery Rate, is the total recovered tons (materials collected for recycling, for composting, and for materials meeting certain criteria, for energy recovery) divided by the sum of the total generated tons (total recovered tons plus total disposed tons). It is calculated annually for each wasteshed by the Oregon DEQ.

**Recovery Rate Goal** – Oregon law requires each wasteshed to determine and declare a recovery rate goal for codification into Oregon law. The 2015 changes to these laws removed administrative consequences for not meeting the goal.

**Resource Recovery Advisory Committee (RRAC)** – A former appointed committee that made recommendations to the Lane County Board of Commissioners concerning administrative policy legislation, long-range planning, and financing for the County's Solid Waste Program. The

Committee also investigated possible alternative methods of garbage disposal and recycling programs.

**SB 263 (2015)** – [Senate Bill 263](#) revised and updated the Opportunity to Recycle Act (ORS 459A); eliminating some features, adding program elements, and updating recovery rate goals and waste prevention and requirements for Oregon's municipalities and wastesheds.

**Sector-Based Emissions Inventory** – Greenhouse gas emissions produced within the defined geographic boundaries of study, from transportation, residential, commercial, industrial and agriculture sectors, but also includes emissions from electricity use, even if generated outside of the boundary (compare to Consumption-Based Emissions Inventory).

**Short Mountain Landfill (SML)** – Lane County's only municipal solid waste landfill.

**Solid Waste Management Plan (SWMP)** – A guide for the development and operation of an effective solid waste management system in Lane County. It is a road map for making decisions to enhance and improve the quality of services currently being provided.

**Source-Separated** – The material in question is separated from garbage for recycling (or other purpose) at the source of generation, or by the generator of that material.

**System Benefit Fee** – The portion of fees that Lane County charges that fund all operations of the Waste Management Division not directly associated with operationally interring waste in the landfill itself. Example: Operation of the transfer stations, the hazardous waste facility, and recycling programs.

**Transfer Station** – A building or processing site for the temporary disposal of waste. It is used to collect waste materials prior to the waste being transported to a landfill.

**U.S. Environmental Protection Agency (EPA)** – The U.S. Federal agency, with the mission to protect human health and the environment, established a series of Solid Waste Disposal Regulations (Resource Conservation and Recovery Act – or RCRA) and delegates authority and responsibility to state agencies.

**Upstream** – Refers to the impacts or origins of a product or material prior to use.

**Urban Growth Boundary** – A geographic boundary that identifies the urban lands available during a specified planning period (usually 20 years) for urban development densities in order to protect and conserve rural agricultural lands.

**Wasteshed** – A "wasteshed" is defined in Oregon law as being an area of the state that shares a common solid waste disposal system, or an appropriate area in which to develop a common recycling system. In all but two cases, individual Oregon counties are designated as wastesheds. Lane County is a single-county wasteshed.

## Executive Summary

Lane County Government (the “County”) is the state-designated Solid Waste Authority for the Lane County Wasteshed. Through this authority, Lane County developed this Solid Waste Management Plan (SWMP) to align with state recovery goals and priorities and to coordinate solid waste management efforts between the County, municipalities, industry stakeholders, and other community partners. Currently, Lane County landfills over 275,000 tons of waste annually. Per Oregon DEQ waste composition study analysis, nearly two-thirds of this material could be composted, recycled, or recovered for energy. **Collectively, we can, and we must, do more to reduce waste generated in Lane County and recover reusable materials.** Global need for materials and products is increasing rapidly, bringing significant impacts to Oregon residents, businesses, communities and the environment. Lane County has the resources, knowledge, and capabilities to transform and manage our waste streams to demonstrate sustainable waste management strategies for the future.

This SWMP will provide vision and direction, guiding the operation and continual improvement of solid waste management systems in Lane County. It offers a high-level structure of work plan development for the leadership and staff of the Waste Management Division. This SWMP was developed through regional collaboration with citizens, local jurisdictions, and private and public industry stakeholders. The SWMP establishes sustainable waste management **strategies and associated actions**. When implemented, the strategies and actions are intended to reduce consumption and waste generation, as well as maximize the recovery of products, materials, and energy from discarded materials. This will in turn extend the life of Lane County’s Short Mountain Landfill (SML) and provide a safe and well-managed regional facility for other communities near to Lane County.

Discussed in detail in the following chapters, these strategies identified during the Management Plan process, as well as any strategies carried forward from the 2002 Solid Waste Management Plan, are anticipated to lead Lane County to achieve its ambitions for solid waste management.

### **MOVING FORWARD, THE WASTE MANAGEMENT DIVISION AIMS TO:**

- Reduce long-term per capita waste generation through waste prevention, reuse and repair, and to increase the amount of materials recovered through recycling, remanufacture, and energy recovery.
- Partner with others on “upstream” efforts including product stewardship, reduction of consumption, and legislative/policy development.
- Reduce greenhouse gas impacts to both the local and global environment by increased recovery of organics, identifying best practices and deployment of technology over time.
- Maintain system flexibility to respond to changing waste management technologies, public preferences, regulations and circumstances.
- Seek opportunities to reduce costs to residents through the sale of materials and energy commodities as well as landfill space to other communities needing a public partner.
- Reduce Lane County’s environmental footprint by implementing Best Management Practices in waste management planning and operations to maintain healthy air quality, water quality, and long-term livability.
- Provide a high level of customer service to the people of Lane County.
- Develop and maintain a sound funding basis for the solid waste management system.
- Invest in a strong, diverse, and sustainable regional economy.

- Foster a regional manufacturing economy with locally collected materials, supporting local and regional job creation and increasing flexibility to changing market conditions.

## 2025 RECOVERY GOAL

In 2015, the Oregon State Legislature passed new legislation updating the Opportunity to Recycle Act (Oregon Revised Statute 459A). As a part of this process, Lane County was required to provide a voluntary materials recovery goal to be achieved for 2025 and beyond. **Lane County selected 63% for this aspirational goal** – slightly below Marion County and the Portland Metro Wasteshed at a selected 64% goal. Lane County has historically kept pace with increases to recovery rates with both of these wastesheds. Notably, Lane County achieved a 63% recovery rate prior to the statute revision removing a provision that gave “2% recovery rate credits” each for programs of waste prevention, reuse, and backyard composting.

*Priority Strategies for attaining the 2025 Recovery Goal include:*

- Develop uncompacted material recovery capacity.
- Explore new industry and technology developments for alternate methods of waste recovery.
- Repair, replace, or upgrade infrastructure as necessary.
- Support local business efforts to create new markets for recyclable materials.
- Research public private partnerships that encourage local economic development and shifts in market supply and demand economics.
- Provide technical assistance and education to generators of strategically targeted materials for recovery.
- Shift waste prevention efforts and campaigns from broad countywide audience to targeted strategically specific efforts and campaigns.

## PLAN IMPLEMENTATION

The strategies and actions outlined in chapters 4-8 are sorted into the following focus areas:

- **Functional Facilities** – Strategies related to equipment, internal policy, planning, and recycling.
- **Strategic Management** – Strategies related to advocacy, analysis, internal policy, metrics, and planning.
- **Valuable Partnerships** – Strategies related to agreements, communication, contracts, and stakeholder participation.
- **Effective Programs** – Strategies related to compost, the reduction, reuse, and recycling of materials, and safe disposal.
- **Sustainable Revenue** – Strategies related to existing or new income and rates.

Each of the focus areas list the strategies that will be pursued and the actions that will be taken for each of the strategies. Each action identifies a responsible party, a target date, and a metric for measuring success. Staff work plans will be developed and carried out to comply with the strategies, actions, target dates and success measures in chapters 4-8. Local conditions, regulations, markets, funding issues and industry standards all change over time, sometimes rapidly. Lane County must remain flexible and nimble enough to respond to unforeseen challenges and opportunities.

## PLAN UPDATE PROCESS

This SWMP is intended to provide strategies for the wasteshed through 2025 and beyond. The year 2025 has been the selected target date for prioritized strategies to enable Lane County to reach its statutory goal of a 63% recovery rate. Recognizing that this is an ambitious goal, many of the



strategies may take beyond the 2025 timeframe to fully implement. Lane County will conduct annual reviews between 2020-2025 to measure implementation progress and track success metrics. Additionally, the plan will be comprehensively updated in 5-year increments to adjust strategies and actions as needed.

## Chapter 1 – How is Waste Managed in Lane County?

The SWMP is in line with, and acts as a road map for, Lane County Waste Management Division's mission, vision, and activities. It also supports Lane County's Strategic Plan Priority for Vibrant Communities, with materials diversion from the waste stream set as a measure of success.

### **Waste Management Division's Mission**

*To provide safe, responsible and economical recycling and disposal services, while respecting the environment and communities we serve.*

### **Waste Management Division's Vision**

*To positively impact the community by taking the byproducts of modern life and efficiently and responsibly getting them to the best place.*

### **Lane County Strategic Plan Priority: Vibrant Communities**

*To manage equitable services for urban and rural residents to enhance opportunities and access by embracing efficient systems and processes, collaboration with partners and innovative approaches to solving problems.*

Lane County's waste management systems are strong. As of 2017, Lane County has the highest waste recovery rate in the State of Oregon at 52.8% thanks to a motivated community with long-standing businesses and private enterprise. Lane County owns and operates the Short Mountain Landfill, which has over 100 years of disposal capacity, and effectively operates 15 transfer stations serving residential customers and businesses with disposal services, a wide range of recycling services, and hazardous waste disposal for household and conditionally exempt generators (CEG). Nearly all populated areas of the County are serviced by multiple qualified private haulers. There are two material recovery facilities for processing and recovery of C&D wastes and one privately operated C&D landfill. There is ample potential for organics processing through two privately owned composting companies and one privately owned anaerobic digester. Waste reduction and reuse services are provided by several dedicated nonprofits and dozens of private companies. The following is an overview of Lane County's current solid waste systems, both public and private.

## AGENCY ROLES

The primary responsibility for managing solid waste in Lane County rests with the Public Works Department Waste Management Division (WMD), as overseen by the County Board of Commissioners.

The WMD is committed to providing "a solid waste management system that is environmentally sound and socially acceptable while balancing convenience with economics" and a "high level of service to the people of Lane County." The WMD meets these goals by:

- Operating transfer, landfill, special waste and recycling programs in compliance with all regulations
- Fostering community partnership and entrepreneurial recycling businesses
- Educating generators in waste reduction and recycling techniques, the management of hazardous wastes, and proper disposal, and
- Creating a fee structure that covers all costs, provides for capital improvements and encourages waste reduction.

In the most recent review of solid waste issues and goals, Lane County determined it is in the best interest of the people of Lane County to increase recovery and recycling to 63% by the year 2025 and that developing a regional solid waste entity may best serve the communities of Lane County in developing new facilities and systems, and improve access to recycling markets.

Several public agencies are involved in administering and overseeing solid waste activities in Lane County. They are:

The U.S. Environmental Protection Agency (EPA)

The US EPA establishes federal standards for solid waste activities and delegates management and enforcement to the states.

The Oregon Department of Environmental Quality (DEQ)

The DEQ administers state and federal solid waste management requirements, approves and permits waste facilities, and provides technical assistance to local government to maintain compliance with Oregon's Opportunity to Recycle Act.

Municipalities

There are 12 incorporated areas in Lane County: Eugene, Springfield, Cottage Grove, Creswell, Coburg, Junction City, Veneta, Lowell, Oakridge, Westfir, Florence, and Dunes City. According to state law, cities and counties may license, contract or franchise with private haulers for garbage collection, or elect to provide their own service. Cities and counties are granted the authority to set or approve rates and program options within their geographic area. In addition, cities with populations over 4,000 have responsibilities under OAR 340 Division 90 to ensure that recycling collection and education programs are implemented.

There are seven cities within Lane County that must manage recycling and education programs in compliance with state Opportunity to Recycle laws. Each of these cities carry out their waste management programs in different ways, most often in collaboration with franchised or licensed haulers. The [2010 Lane Wasteshed Recovery Plan Update](#) provides detailed description of each. Some cities also have independent programs that target specific areas of solid waste management. Examples of this are the City of Eugene's *Love Food not Waste* program that targets food waste and the City of Florence's Styrofoam food packaging ban.

Lane County Public Works Department Waste Management Division (WMD)

manages the 16 county disposal sites, the recycling and special waste service programs, and an extensive education and outreach effort. In the State of Oregon, the primary authority for managing solid waste is assigned to cities and counties (ORS section 459.085). Under state law, counties have a broad range of authority outside of city jurisdictions to design, construct, and operate facilities and provide services or to contract for such facilities or services. In addition, OAR 340 division 90 requires that Lane County ensure that recycling collection and education programs are implemented within the urban growth boundary areas of all cities with over 4,000 population. Because Lane County does not have a license or franchising system for residential services, Lane County uses [Lane Code requirements](#) (Code 9.060) to ensure residents within the urban growth boundary areas have an equal opportunity to recycle as their neighbors inside city limits (see Chapter 10 – Resources for a link). This, in addition to Lane County's extensive waste reduction and recycling education programs, maintains compliance with state law.



Figure 1: Graphic depicting the relationship between the City, County, and UGB. Lane County is responsible for all areas outside of city limits, including UGB areas.

Lane County’s management of solid waste includes providing households and CEG businesses with safe disposal options for hazardous materials and attending to the environmental management needs of all active and inactive sites in our system. WMD is responsible for the operation of all elements of the County-provided solid waste disposal system and funding is provided only through user fees. No general funds or taxes are used by WMD.

## FACILITIES AND SERVICES

### Landfills

#### The Short Mountain Landfill (SML)

The WMD owns and operates one sanitary landfill that handles the majority of waste disposed in the County. The landfill has been in operation since 1976. It currently covers 103 acres and will cover 220 acres at full build-out. It receives over 275,000 tons of material per year. The landfill employs aggressive methane capture and has a long-term relationship with Emerald People’s Utility District to convert it into electricity. Approximately 4,700 metric tons or (550,000,000 Standard Cubic Feet flow) of methane gas was captured in 2018. In addition, approximately 20 million gallons of leachate are captured and treated annually.

All solid waste generated in the County is landfilled at the Short Mountain Landfill (SML), with the exception of material that is collected in Veneta, Junction City, and by Republic Services in the County areas surrounding Coburg and Junction City. This waste is hauled to Republic’s Coffin Butte Landfill located 43 miles north of Lane County in Corvallis. Aside from this, the only other MSW landfill within 100 miles is Roseburg landfill, owned and operated by Douglas County; however, this landfill is expected to close in less than 30 years due to capacity. Short Mountain Landfill is calculated to have over 100 years of disposal capacity.

Of all the tons of waste that are destined for Short Mountain Landfill, approximately 67% comes from commercial haulers, 22% comes from Lane County transfer stations, and 11% comes from private vehicles and account holders (usually large businesses and construction contractors).

#### Delta Sand & Gravel C&D Landfill

Delta Sand & Gravel company operates a privately-operated construction and demolition reclamation landfill that accepts dirt, rock, concrete, asphalt, building demolition, roofing, and land clearing debris as backfill for their gravel mine. This landfill received approximately 38,000 tons of demolition debris in 2017. This landfill may have as much as 50 years of remaining capacity, or more, as new landfill capacity is created whenever gravel is removed for sale.

Figure 2 provides a map of the two landfills located within the County, as well as the two nearest out-of-county landfills, Coffin Butte Landfill and Roseburg Landfill.

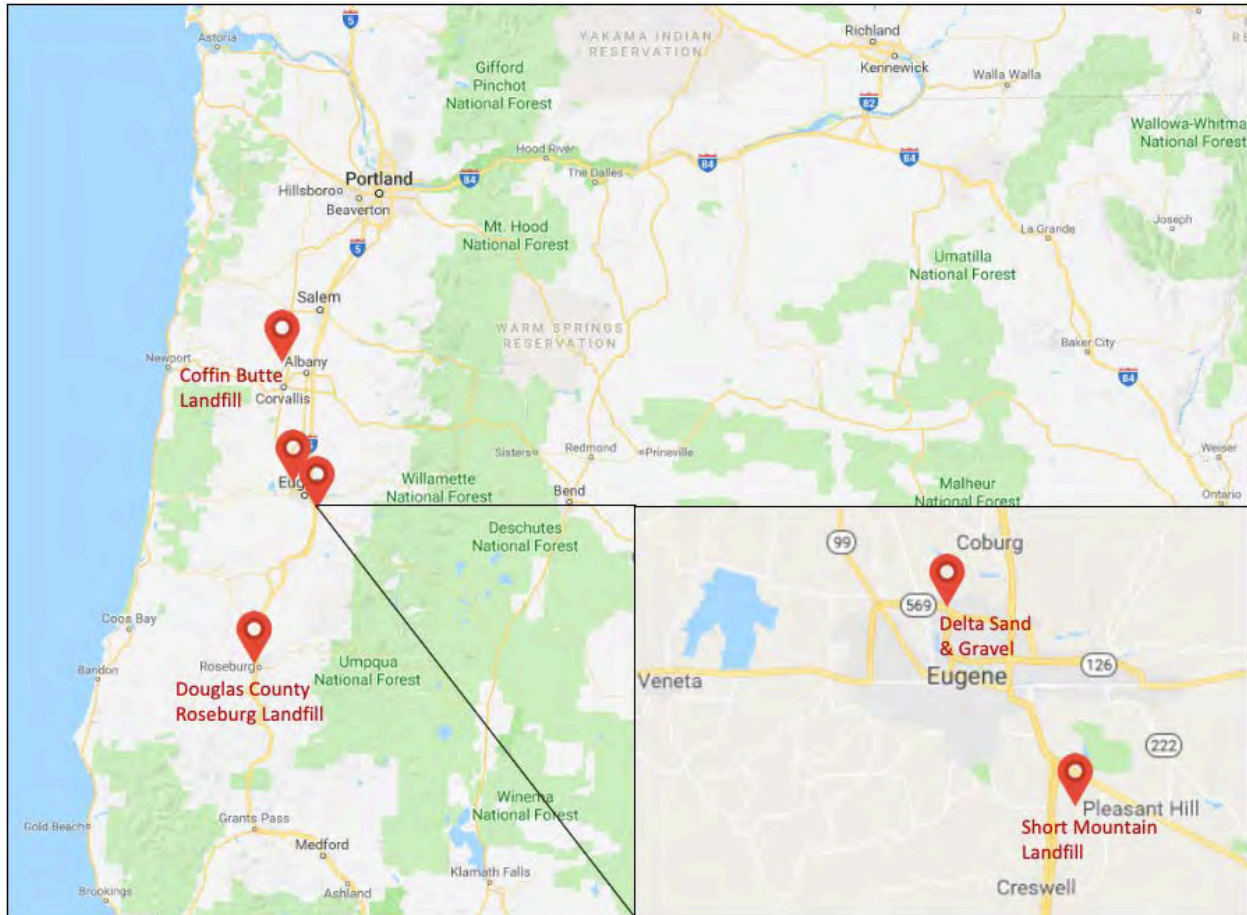


Figure 2: A map of the locations of the two landfills in Lane County as well as the two nearest out-of-county landfills.

### **Transfer Stations**

Lane County WMD operates more transfer stations per capita than any other county in Oregon. The Glenwood Central Receiving Station (CRS) serves the Eugene-Springfield metropolitan area, and 14 regional/rural transfer stations serve smaller communities. All transfer stations are permitted and in compliance with all site requirements. Transfer stations provide residential and small business customers with disposal drop-off options and an extensive range of recycling options, with some material variation due to size of the transfer station (example: electronics and yard debris/wood waste are not collected at all sites). See Figure 3 for a map of transfer stations. [Lane County's Recycling Guide](#) provides detailed descriptions of what is recycled at each station and the wide variety of educational programs and resources offered in our community. Several of the private

collection service companies operate their own transfer stations for efficient reload of collected wastes: Cottage Grove Garbage, Royal Refuse and Sanipac (a Waste Connections Company).



Figure 3: Map of transfer sites in Lane County.

### **Collection Services**

To ensure effective curbside collection of wastes, some cities operate franchise agreements with a single garbage company; Springfield, Creswell, Veneta, and Lowell have exclusive franchises with Sanipac, Inc. The City of Cottage Grove franchises with Cottage Grove Garbage Inc., the City of Coburg franchises with Coburg Sanitary Service Inc, and the cities of Oakridge and Westfir franchise with Oakridge Sanihaul. The City of Junction City operates the only municipally-owned collection service in the state. Other cities operate license programs with two or more private companies holding licenses; Dunes City and Florence license with Central Coast Disposal and County Transfer and Recycling (a Waste Connections Company). Eugene’s current license holders are Coburg Disposal, Countryside Disposal Service, Eugene Drop Box, Lane Apex Disposal Service (recently rebranded as Apex Recycling and Disposal), Lane Forest Products/Action Drop Box, Royal Refuse Service, Sanipac, and Waste Reduction Services LLC (a Waste Connections company). Outside of these cities’ limits Lane County does not license or franchise private haulers operating in the county.

These license programs define rates and service levels but do not define territories; it is an open competitive market. The following companies operate in an open competitive market offering garbage service in various rural areas throughout the county: Ecosystems Transfer and Recycling, Countryside Disposal and Recycling, McKenzie Disposal Service, Republic Services, Royal Refuse and Sanipac.

Of the 13 collection service companies operating in Lane County, all but three are locally-owned small businesses. Waste collection services within most cities generally collect, at a minimum, garbage and source-separated commingled recycling. Other options that may be provided, depending on the service provider and jurisdiction agreements, may include yard debris, motor oil, and glass collection. Aside from Lane County’s code requirements for service inside urban growth boundaries to match that of the attached city, the highly competitive open market system allows

rural area haulers to determine for themselves the service parameters they will provide and the rates charged for service.

### **Private and Nonprofit Providers**

In addition to the collection service companies above and facilities described below, Lane County is able to recycle about 250,000 tons of materials each year thanks to a robust community of private and nonprofit providers that collect goods from residents and businesses via drop sites or pick-up services. Some examples include companies that collect scrap metal, auto batteries, motor oil, appliances, commercially generated large quantities of plastics, large quantity cardboard and paper generators, and agricultural plastics.

A number of businesses, both private and nonprofit, such as St. Vincent De Paul and Goodwill specialize in the resale of used household goods and business items. BRING Recycling and Habitat for Humanity specialize in the resale of building supplies. Habitat for Humanity operates locations in Florence and Cottage Grove as well as Eugene. NextStep Recycling facilitates the reuse and recycling of electronics. MECCA specializes in the resale of arts and craft supplies. St. Vincent De Paul, long-time vendor of recycling services, also operates several waste-based businesses that recycle, repair, repurpose, or resell non-bottle glass, wood products, mattresses, cars, clothing, and Styrofoam. Garten is a Salem-based company that operates a Eugene facility which recycles electronics, various paper grades and plastics, and other materials.

There are two companies known to collect commercially generated, large quantities of plastics from the area as end-markets allow. One such company is International Paper, which is also the region's recycling solution for large quantity cardboard and paper generators and owns the container board mill in Springfield. Agriplas, based in Brooks, OR, has routes all throughout Oregon to collect plastics generated by the agriculture industry, though this has been reduced by the recent global market disruption.

### **Material Processing Facilities**

#### **Source-Separated Recycling Processing Capacity**

There are two private companies, EcoSort (a Waste Connections company) and International Paper, that are currently available to receive residential and commercial commingled recyclable materials from the area's collection service providers (haulers). These private companies operate in a competitive market and determine what they will and will not accept in the operation of their businesses. The collected materials are consolidated and shipped to sorting facilities located in Salem, Portland Metro, or Vancouver, WA for processing. McKenzie Recycling (owned by Royal Refuse) is a similar processing facility but is currently delivering its commingled recyclables to International Paper for processing. There are currently no facilities in Lane County designed to sort and market the source separated commingled material stream.

#### **Construction and Demolition Debris Processing**

The two private companies described above operate material recovery facilities to sort construction and demolition (C&D) loads for recyclable commodity marketing. One of these facilities, EcoSort (Waste Connections) is located next to the County's CRS. The other facility is operated by McKenzie Recycling (Royal Refuse) and is located in west Eugene. These Facilities benefit from a Lane County rate incentive provided to ensure sufficient capacity in the region. The disposal charge for residual waste from the sorting operation is discounted based the 12-month rolling average recovery rate of the facility.

### Mixed Waste Processing Capacity

With the possible exception of EcoSort and McKenzie Recycling, which process mixed dry commercial loads predominantly from construction and demolition, there are currently no mixed waste processing facilities that sort municipal solid waste for material recovery in the County. Despite being home to Bulk Handling Systems, a global leader in supplying mixed waste processing systems and equipment, there are none in Oregon.

### Composting and Organics Processing Facilities

There are two permitted and well positioned private composting businesses, each with two or more operating locations in Lane County. One is operated by Lane Forest Products, and the other by Rexius Forest By-Products. Rexius has a long history of actively assisting event recycling efforts by composting paper and biodegradable plastics along with food residues. They currently receive much of the post-consumer food waste collected by Eugene's *Love Food not Waste Program*. Recently, Rexius, along with all Oregon compost facility operators, announced their intention to allow only food and plant waste (no compostable plastic or paper items) in any future program implementation they participate in due to customers rejecting compost with bits of paper or plastic in it. Rexius has an in-town drop off and purchase site and a large processing facility north of Eugene. Lane Forest Products' wood recycling division processes one of the largest recycling volumes in Lane County with approximately 50,000 tons annually. They operate three locations – two that receive drop offs — one of which processes materials, and a larger processing location near Junction City. Both companies report sufficient available capacity to increase the composting of organics in Lane County.

### Anaerobic Digestion

JC-Biomethane, LLC started operations in 2013, and is now owned by Shell New Energy. This facility is the first biogas plant in the Pacific Northwest to produce energy from the digestion of post-consumer food waste. In the past, the company has received food waste and other organic waste from as far away as Portland. Through anaerobic digestion, the plant transforms a mix of organic waste into methane-rich biogas, which is then used to generate electricity and may be sold as a transportation fuel in the future. The remaining food waste slurry is used as a soil amendment to local farms. The facility is located adjacent to Lane Forest Products' composting operation in Junction City. Recent communication with the company suggests they are moving away from food waste processing in favor of other agricultural feedstocks due to contaminants that affect the equipment and the salability of the end product.

### Hazardous Waste Facilities

The WMD Household Hazardous Waste (HHW) Program diverts hazardous waste from the landfill by offering disposal services for households and small businesses known as Conditionally Exempt Generators (CEGs). The County's HHW Collection Center at the Glenwood CRS accepts waste from residents by appointment only. In addition to certain hazardous materials accepted at the County's rural transfer stations (e.g., batteries, motor oil, sharps), the WMD HHW Program conducts mobile collection events in rural communities each year.



## FINANCIALS

Lane County's Waste Management Division operates as an enterprise fund. The fund is solely supported by user fees and incidental revenues resulting from the sale of recyclable commodities, interest earnings, etc. This enterprise fund structure was designed to maintain and protect the funds and to ensure that they remain dedicated for the uses for which they were created. No general fund monies are used for any of the Division's activities, programs or operations.

The fees charged for waste disposal at Lane County sites fund the operational costs of the landfill, 15 transfer stations, household and small business hazardous waste collection programs, and the wide range of outreach and education programs required by Oregon Opportunity to Recycle rules and embraced by an enthusiastic recycling public. In accordance with state and federal law, Lane County has set aside funds to provide adequate oversight of landfill closure and post-closure. Long after the landfill sites are closed and are no longer bringing in revenue, they will still need to be monitored and managed using these designated funds.

Lane County's solid waste user fees are structured to provide stable funding for the system. The System Benefit Fee component (60%) of Lane County user fees funds all non-landfill activities and programs listed above. The other component, the disposal fee (40%), funds all landfill activities, including closure and post-closure costs. In the event that waste generated inside Lane County were to be hauled to a municipal solid waste landfill outside Lane County for disposal, the hauler would be required to remit the appropriate system benefit fee to Lane County, on the premise that the waste generator – while not subject to Lane County's landfill tip fee – had access to all the other components of Lane County's waste management system and should pay their fair share.

The portions of the regional solid waste system that are not directly operated by Lane County are financed via private companies and enterprises. While local governments can franchise, contract with, or otherwise set conditions for the hauling community, thereby interacting or affecting financial dynamics therein, the private companies that operate material processing and transport of recyclables are not bound by any such structure. The other disposal and compost facilities are also private companies, and financial information is protected due to the highly competitive nature of business in this industry.

## Current Challenges

### **Recovery Rate**

Lane County's recovery rate is the highest in Oregon, but after many years of improvement, the current recovery of material is plateauing. Lane County has a state-recognized goal to reach a 63% recovery rate by 2025. To achieve that goal, Lane County will need to develop stronger integrated relationships between municipal partners and waste collection providers to develop high recovery waste systems and incentivize recovery. There are many challenges to increased recovery including lack of financial incentives for the public and private companies, operational and equipment challenges, as well as data challenges in tracking re-used goods and materials. Achieving our recovery rate will depend upon our ability to collaborate with cities and collection service companies to reduce barriers and increase opportunities. Lane County will also need to develop supporting infrastructure capacity and end-user markets to increase diverted materials and become more resilient to volatile market swings.

### **Organics**

Returning organic material to soil through composting is beneficial not only for improving soil fertility and agriculture, but also to reduce one of the most potent greenhouse gasses, methane, that results from organics in landfills. Waste systems around the country are facing growing pressure to reduce the amount of organic waste sent to landfills. In 2015, the U.S. EPA and the U.S. Department of Agriculture announced a nationwide goal of reducing food waste by 50% by 2030. In Oregon, new legislation stemming from Senate Bill 263 (2015) set new recovery goals for high-impact materials including recovering 25% of food waste by 2025.

Food waste is the highest individually categorized waste in Lane County's waste stream at nearly 18% of total tons. Many communities implementing food waste diversion programs continue to face challenges with plastics contamination. Whether food waste is diverted for biogas or compost, the inclusion of biodegradable plastics has not proven to be the solution producers and recyclers had hoped – not only do they attract other contaminants, but the wide variety of compostable products degrade at varying rates with varying effectiveness. Many of the long-standing food waste programs in Oregon that had allowed paper and bioplastics are now changing to be food-only programs. The only commercial food waste program in Lane County is voluntary and collected nearly 2,500 tons in the most recent reporting year. Both an increase in collection and a focus on waste prevention is needed. While diverting food from the Short Mountain Landfill may impact the future volumes of gas-to-energy that is owned and operated by the Emerald People's Utility District (EPUD), it is well recognized that capturing the biogas from organics before landfilling is dramatically more efficient in producing low-carbon power, heat or transportation fuel.

### **Recycling Markets**

Recycling markets have ebbed and flowed over the past 35 years with prices fluctuating largely in response to expansions and contractions in the overall world or national economy, such as major economic recessions and stock market crashes, or commodity trading interruptions such as longshoremen strikes. For the past several years, markets have been challenged as China's economy has slowed and the country has placed increasing restrictions on the importation of solid waste by requiring higher purity levels of recycled commodity materials. These restrictions have caused a glut of low-quality recycled materials in the U.S. and corresponding low values on these commodities. To access materials markets, the County needs to work for ever higher quality levels of recovered materials as well as partner in the development of local industries that can buy the material and put it to use. Many recycle commodities must be transported long distances to end-users or processors, and in some cases, no local market exists for the commodity at all.

### **Coordinated Solid Waste and Recycling Systems – Citizen Confusion**

Customers of solid waste and recycling services in Lane County receive a widely varying set of service levels and standards. The size, color and markings that distinguish disposal service containers, and the instructions for what is recyclable is different across distinct jurisdiction boundaries – and indeed within them in where more than one company provides services. Residents and small businesses often do not know who to call or how to locate services. Lane County has sought to provide education services that alleviate confusion but with more than eight distinct governing bodies it is nearly impossible to maintain clear concise uniform messaging for public consumption.

### **Coordinated Solid Waste and Recycling Systems – Planning and Development**

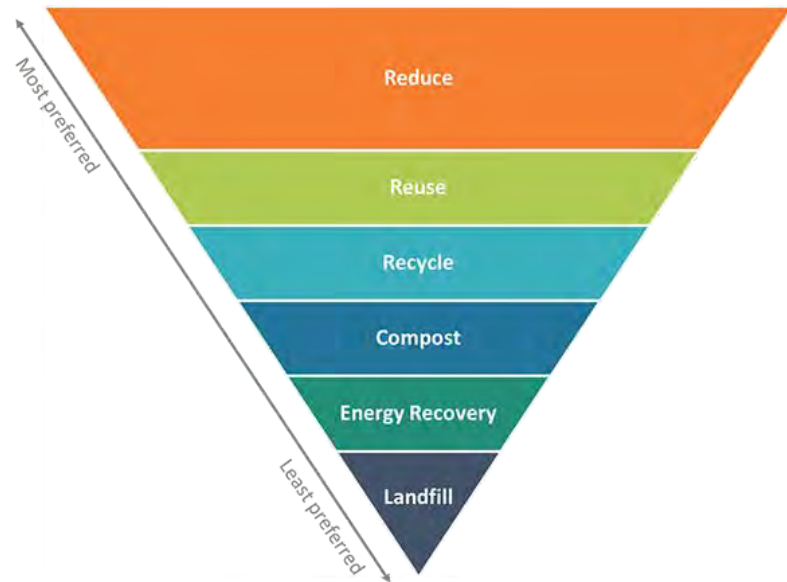
Under the current system structure, each city chooses their own list of recycling program elements as defined in OAR 340-090-0040. Each city chooses differently than others, even amongst cities that are economically and physically interdependent and share other infrastructure resources. Lane County does not currently have access to data needed to chart a path toward 63% recovery rate, data regarding effectiveness of each program, the participation rates or tons collected in each city. One of the major recommendations in R3 Master Plan Supporting Document is to develop a coordinated regulation of collection services provided to residential, multifamily (condo and apartment complexes) and commercial customers throughout the county with coordinated reporting to assess participation and effectiveness. In addition to this, planning and development of needed infrastructure or local end-markets to benefit our local communities will likely require commitment of material flow, and/or investment from more than one agency or city.

### **Multi-Family and Multi-Tenant Recycling Collection**

The passage of Senate Bill 263 in 2015 and the associated rule changes in 2018, mandates that by 2022, all commercial multi-tenant and multi-family tenants, must be provided the opportunity to recycle from the property owners. Recycling at multi-tenant properties has always been difficult – many people using a shared disposal space leads to higher contamination levels. To ensure functioning recycling systems, the waste and recycling community will need to improve equipment signage, and property managers will need to educate and re-educate tenants as residents move in and out of housing complexes. Additional new, programming and resources will be needed to ensure ongoing compliance with Oregon recycling laws.

## Chapter 2 – A Changing Vision from Solid Waste Recovery to Materials Management

Lane County has historically focused primarily on end-of-life management of discarded materials. Operating the landfill and transfer stations, Lane County government has developed systems to efficiently move waste and maximize space utilization at the landfill. In addition to this, the County, private businesses and nonprofits have developed systems to recycle and reuse discarded materials. A comparatively small amount of effort has been dedicated to community waste



prevention education or upstream actions to reduce waste generation.

*Figure 4: Oregon DEQ Solid Waste hierarchy of waste management methods from most to least preferred.*

Moving forward, Lane County will shift efforts and focus, and dedicate resources higher up the State's Solid Waste Hierarchy to support more preferred strategies for Sustainable Materials Management, such as reuse and repair, extended producer responsibility, business/industrial waste prevention, and recycled content purchasing priorities. Figure 4 shows waste management methods from most to least preferred according to Oregon DEQ, with a focus on reducing the consumption of goods at the top of the hierarchy.

### CHANGING FROM RECOVERY OF WASTE TO REDUCING CONSUMPTION TO FIGHT CLIMATE CHANGE

Lane County residents currently landfill over 250,000 tons of waste annually. Per Oregon DEQ, roughly two-thirds of this material could be composted, recycled, or recovered for energy.<sup>1</sup> While our organization will continue to be dedicated to proper disposal and recovery of waste, it is time to shift our perspective on waste now that we have better information on the impacts of wasting resources.

**The benefits of recovery will not address the greatest threat of our time – climate change.** In most communities, the greenhouse gases (GHGs) emitted from the production and manufacturing of our food, goods and services is 40-60% of our communities' carbon footprint. **Collectively, we can, and we must, do more to reduce consumption and waste of materials, and recover materials and energy with the best practices and technologies given market conditions.**

<sup>1</sup> DEQ's [2016 Solid Waste Characterization and Composition Study](#)

The United Nations’ Intergovernmental Panel on Climate Change warns of irreversible climate change if we allow the global average temperature to increase beyond 2°C. While globally we are not on track to meet either the recommended maximum increase of 1.5°C or 2°C, the difference between a 1.5°C and 2°C temperature rise is that the latter will result in “a greater likelihood of drought, flooding, resource depletion, conflict and forced migration” and that “those most at risk will be individuals and communities experiencing multidimensional poverty, persistent vulnerabilities and various forms of deprivation and disadvantage.” According to the International Panel on Climate Change, in order to avoid the worst of climate change, and do our part to reduce emissions, annual household and organizational emissions must decrease by roughly 5% per year – every year until 2050, when we must pursue negative emissions for another 50 years.<sup>2</sup>

One of the communities we serve, the City of Eugene, has developed their community carbon footprint and found that locally produced emissions (sector-based) were approximately 1 million metric tons of GHGs, while the imported emissions coming from food, goods and services produced out of the area equate to approximately 1.75 million metric tons of GHGs (see Chapter 10 – Resources for more information).<sup>3</sup> **That means the goods we consume are about 64% of our total carbon footprint.** For this reason, Lane County must focus efforts to reduce consumption as our longer-term goal, not just better recovery.

**Error! Reference source not found.** illustrates the relationship between Oregon’s sector-based (local emissions such as energy for buildings and vehicles) and consumption-based (local and imported – includes food, goods and services) Greenhouse Gas emissions over time (Oregon DEQ). While sector-based emissions are decreasing since 2007 from good renewable energy policy and energy efficiency efforts, consumption-based emissions have been going up steadily – approximately 41% since 1990.<sup>4</sup>

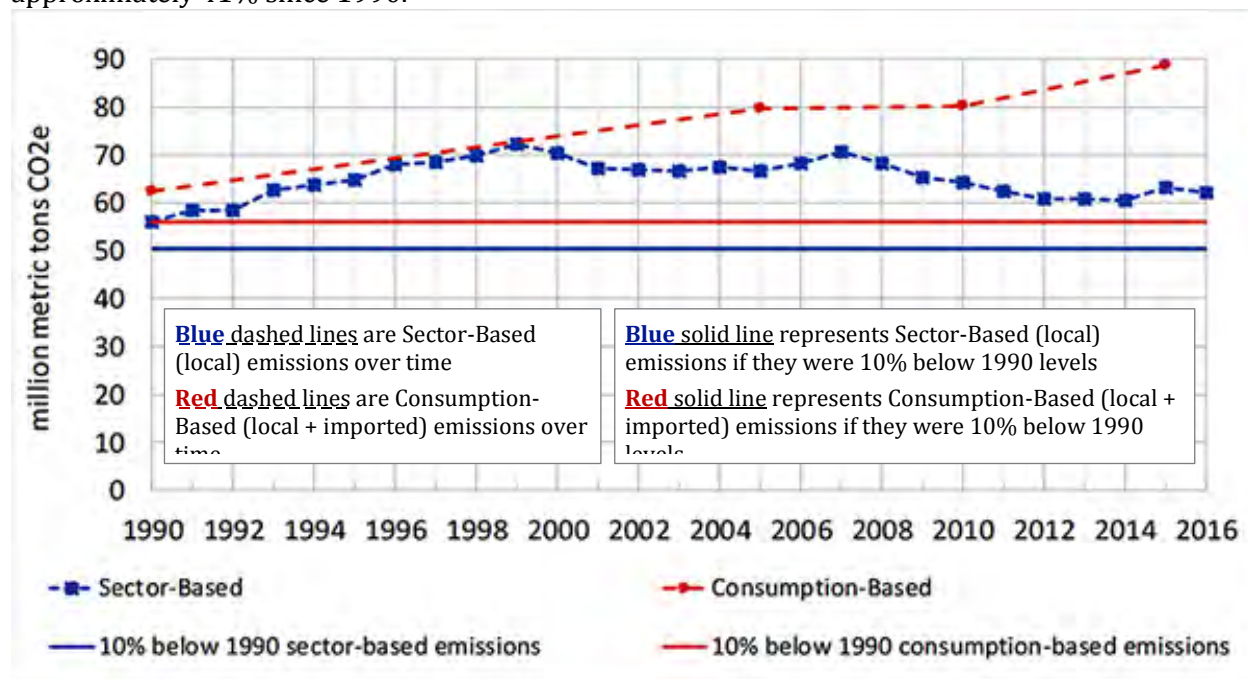


Figure 5: Oregon Greenhouse Gas Emissions over time showing a steady increase in consumption-based emissions, provided by Oregon DEQ (2018). Sector-Based inventories are completed annually, Consumption-Based inventories every five years.

<sup>2</sup> IPCC [Special Report on Global Warming of 1.5°C](#)

<sup>3</sup> City of Eugene [2017 Community Greenhouse Gas Inventory](#)

<sup>4</sup> Oregon DEQ [Greenhouse Gas Emissions Reports](#)

Figure 6 illustrates lifecycle emissions from the consumption of sample goods and services. A sector-based, local emissions inventory only takes the product’s use into account (yellow sections), but not the upstream production, transport, or retail emissions associated with the product (blue sections). A consumption-based, local + imported emissions inventory takes all these emissions into account (excluding exports).<sup>5</sup>

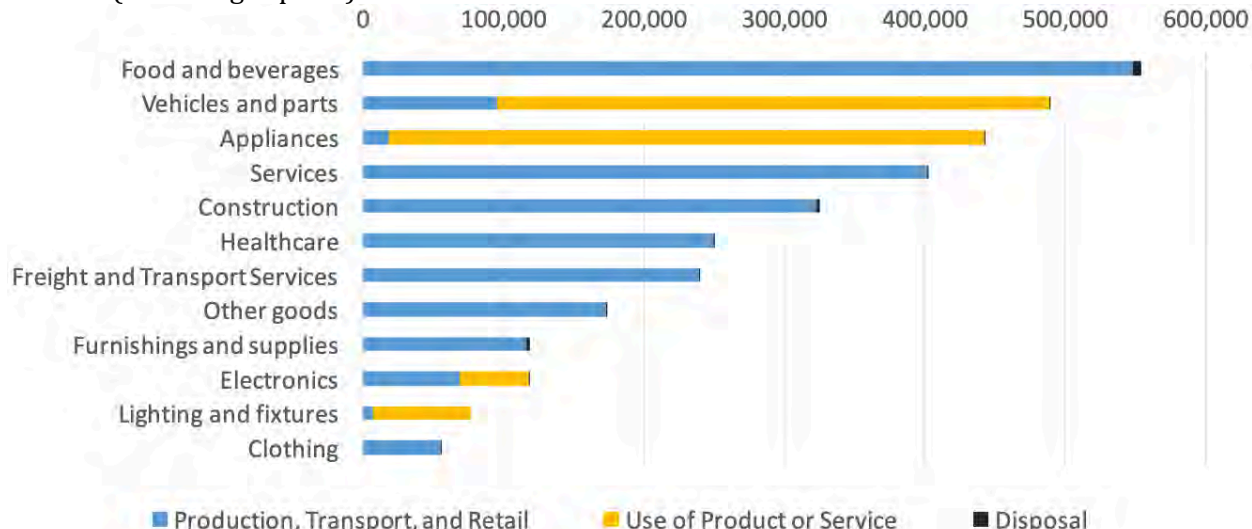


Figure 6: Graph by Good Company showing emissions based on lifecycle stage, per Oregon DEQ Consumption data (MT CO<sub>2e</sub>).

The rise in consumption, driven by the convenience of delivered products, is dramatically increasing packaging use and eventually discarded materials and products if they are not designed for durability, disassembly or recovery. **While disposal is a small component of the full lifecycle, changes in waste management can greatly reduce emissions by reducing the need to consume new materials.** We must foster ways to increase material reuse, recycling, repair, composting, or other recovery of energy or materials, in order to reduce the emissions associated with production, transport, and retail of goods.

## MOVING FROM WHERE WE’VE BEEN TO OUR NEW VISION

In the years since completing roughly 75% of the 2002 Management Plan action items, Lane County has experienced changes in solid waste management trends, new technologies, and the development of new guidance for materials management from Oregon DEQ. In order to meet these changing conditions, Lane County determined this plan should be broader in focus and include more than the County’s own internal operations.

### Moving forward, the Waste Management Division aims to:

- Reduce long-term per capita waste generation through waste prevention, reuse and repair, and to increase the amount of materials recovered through recycling, remanufacture and energy recovery.
- Partner with others on “upstream” efforts including product stewardship, reduction of consumption, and legislative/policy development.
- Reduce greenhouse gas impacts to both the local and global environment by increased recovery of organics, identifying best practices and deployment of technology over time.

<sup>5</sup> Oregon DEQ [Greenhouse Gas Emissions Reports](#)

## Lane County Solid Waste Management Plan 2019

- Maintain system flexibility to respond to changing waste management technologies, public preferences, regulations and circumstances.
- Seek opportunities to reduce costs to residents through the sale of materials and energy commodities as well as landfill space to other communities needing a public partner.
- Reduce Lane County's environmental footprint by implementing Best Management Practices in waste management planning and operations to maintain healthy air quality, water quality, and long-term livability.
- Provide a high level of customer service to the people of Lane County.
- Develop and maintain a sound funding basis for the solid waste management system.
- Invest in a strong, diverse, and sustainable regional economy.
- Foster a regional manufacturing economy with locally collected materials, supporting local and regional job creation and increasing flexibility to changing market conditions.

## Chapter 3 – Management Planning Process and Summary

### WHY A MANAGEMENT PLAN?

A Solid Waste Management Plan (SWMP) is a comprehensive plan of policies, programs, and implementation steps to achieve a vision. Management planning is a process that takes stock of existing resources and asks how they can be maintained, enhanced, or developed to continue to improve our lives and the vitality, livability, and success of our community. Solid Waste Management Plans are encouraged in Oregon Law. ORS 459 indicates that decisions and approval regarding landfills, facility permits, and other issues will be determined by reviewing the regional Solid Waste Management Plan.

### BUILDING ON PREVIOUS PLANNING WORK

The last time the County developed a SWMP was in 2002. The County has largely achieved the actions laid out in this previous plan; however, some 2002 actions are ongoing and continue to be relevant today. These actions are incorporated into this SWMP. In the years since 2002, Lane County experienced changes in solid waste management trends, challenges, new technologies, and the development of new guidance for materials management from Oregon's Department of Environmental Quality (DEQ).

In 2011, the county contracted with Kies Strategies, Inc. to conduct a technical review for the watershed plan update per DEQ rules. The study found a significant lack of system coordination, access to data and regulatory structure that together prevented the ability to identify whether existing recycling programs and services are effective. In 2016, Lane County determined that it required a new plan to guide the County's efforts through the year 2025. Due to the interdependence and proximity of solid waste and recycling systems within the geographic area of Lane County and impelled by the goal of increasing the recovery rate to 63%, Lane County determined that the updated plan should be broader in focus and include more than the County's own internal operations.

*See Chapter 10 – Resources for links to the documents mentioned above and DEQ's 2050 Vision of Materials Management in Oregon website.*



## MANAGEMENT PLANNING PROCESS

Lane County retained R3 Consulting Group, Inc. (R3), and later Good Company, to assist with the development of a regional Solid Waste Management Management Plan (SWMP). As part of a multi-phase project, R3 conducted a review and evaluation of the County's current waste management system as well as the recommendations from the County's 2002 Management Plan. The first phase of that project was an operational review of the WMD's municipal operations, its transfer station and landfill system.

R3's *Management Plan Support Document* included evaluation and consideration of the following:

- State of Oregon's Materials Management in Oregon – 2050 Vision and Framework for Action (2050 Vision)
- State of Oregon's Opportunity to Recycle Laws, including SB 263 (2015)
- Lane County's 63% county-wide recovery rate goal by year 2025
- EPA's Managing and Transforming Waste Streams Tool
- Phase 1 – Operational Assessment Final Report
- Waste composition data of materials disposed in the County
- Population and employment data for the County
- Public and stakeholder input

That review included a number of recommended changes to Lane County WMD's operations, many of which the WMD has already implemented.

## PUBLIC AND STAKEHOLDER INPUT

The County, in coordination with R3, conducted various stakeholder engagements to solicit input regarding recovery strategies and general feedback as part of the Management planning process. The County and the consulting team:

- Engaged staff of the partner cities
- Held two stakeholder/industry meetings including waste recovery assessment breakout sessions (dot exercise)
- Distributed a stakeholder engagement survey
- Held three local public meetings in September of 2016 hosted by the Cities of Creswell, Eugene, and Florence, and
- Distributed a residential survey via *Survey Monkey*

Additional information about the input received can be found in R3's [Management Plan Support Document](#) (see Chapter 10 – Resources).

In winter 2019, Lane County WMD shared a draft SWMP with stakeholders for input and review. Subsequent revisions were incorporated to reflect stakeholder feedback and considerations.



## COMMON THEMES OF PUBLIC AND STAKEHOLDER INPUT

Below are summary points of the most frequently received feedback from the stakeholder engagement process on what the County's Management Plan should include. More in-depth information about the responses and the input process are available in R3's [Management Plan Support Document](#) (see Chapter 10 – Resources).

### Facilities

- Ensure adequate C&D debris processing capacity for the growing needs of the community.

### Management

- Focus on reducing contamination in the recycling stream via various strategies (i.e. education and outreach, increased access to source separation opportunities, financial penalties, etc.).

### Partnerships

- Foster more coordination between all stakeholder groups (County and cities, University, waste haulers, recycling facilities, etc.).
- Acknowledge that waste haulers are willing to meet regional requirements, provide reports, and promote recovery strategies as long as there is a level playing field amongst companies (i.e. universal requirements) and that they are fairly compensated for the services provided (i.e. via a rate structure that appropriately covers costs, payments by the City or County, other creative economical strategies).
- Improve end-markets/uses for recycled products.
- Focus on establishing Extended Producer Responsibility (EPR) policies and programs, specifically regarding the following concerns: carpet, mattresses, pharmaceuticals, and household hazardous wastes.

### Programs

- Emphasize food waste recovery by utilizing various methods, including:
  - Creating and distributing improved education and outreach on food waste recovery opportunities and importance
  - Providing appropriate curbside collection opportunities for organics
  - Providing adequate processing for organics
  - Promoting and utilize food donation organizations
  - Encouraging businesses to transition to smaller meal portions
  - Promoting the sale of ugly produce
  - Developing a method for getting post-consumer food to homeless/hungry people (i.e. food rescue)
- Improve education and outreach on existing solid waste recovery opportunities. Specifically, this should be a regional effort and therefore uniform in appearance (same color bins, same messaging, etc.).
- Focus on school recovery programs and education and outreach and/or making existing programs available to more schools and promoting those existing programs.
- Help organizations:
  - Produce more easily recycled products
  - Minimize packaging, and

- Accept back materials that cannot be locally recycled

### Revenue

- Rate revisions should be more reflective of actual costs that also encourage participation in recycling programs.
- Additionally, include more communication to rate payers regarding what's included in rate.

## MAJOR FINDINGS FROM 2017 MANAGEMENT PLAN SUPPORT DOCUMENT

Many of the findings and recommendations presented in R3's *Master Plan Support Document* are consistent with and/or support stakeholder input received during the stakeholder engagement process and address current challenges identified by the County. See **Chapter 1** for *Current Challenges*.

### Facilities

- As private hauler compacted loads are now routed to Short Mountain landfill instead of Glenwood Transfer Station, there is a need to develop capacity for the recovery of materials from uncompacted loads.
- There is organic waste processing capacity in the County, but mixed waste processing and material recovery facility capacity is limited.

### Management

- The current solid waste management system is strong.
- WMD staff, and the region's network of solid waste and recycling businesses are qualified and capable.
- WMD has established a countywide Recovery Rate Goal of 63% by 2025.
- The County has a high recovery rate relative to other counties in the state.
- The County's state-reported recovery rate was 52.8% in 2017.
- Recovery of materials from the countywide waste stream has plateaued.
- While countywide tonnage data is available, other basic planning information is not available to allow the County to:
  - Gauge effectiveness of residential and business curbside recycling and organic recovery programs, or
  - Identify areas to target for improvement.
- To achieve the goal of a 63% recovery rate, the cities and County need to know the recycling and organic program recovery rates and participation rates.
- Although the County operates a very effective program, special waste materials are still being improperly disposed by residential and commercial accounts into the waste stream.

### Partnerships

- The cities and County should seek to establish a truly integrated waste management system.
- Effective private hauler regulation is the most effective waste management tool available to the cities and the County.
- Maximizing private hauler recovery is much more difficult in open competition systems than it is in districted or franchised systems.

- To meet the 2025 Recovery Goal, communities will need to significantly increase their recovery rates. For example, if curbside programs increase their collective recovery rate from 30% to 50%, the countywide recovery rate will be 63% and meet the 2025 goal.
- Private haulers control 70% of the countywide waste stream with a recovery rate of 30%. The WMD disposal site Recovery Rate is 20%.
- There are no contractual requirements or incentives for the private haulers to increase their current recovery rates.
- Implementing "high recovery" residential and commercial collection programs requires effective contractual requirements and a sustainable funding system.
- Current commercial rate structures create a financial disincentive for the private haulers to increase their recovery rates.
- As the cities and County pursue increased recovery, service provider costs will need to increase to provide the required infrastructure.

### Programs

- Recovery of materials from mixed loads of C&D debris (and other uncompacted loads) is often one of the most cost-effective recovery options available.
- Capturing and distributing edible food for human consumption is the highest and best use of any portion of the waste stream
- Organic waste recovery is, and should continue to be, at the center of the County's waste management system. Cities should have this as a first objective.
- Coordinated program education services and outreach across the county will increase recovery effectiveness of those programs.

### Revenue

- Short Mountain Landfill (SML) has significant capacity and could generate revenue for County through out-of-County waste importation.
- Developing "high recovery" systems will require collection rate increases.
- Reassess the Post-MRF residual rate structure to more effectively incentivize private facility mixed waste recovery. The post-MRF Residual Rate provides facilities that process mixed waste loads (e.g., EcoSort and McKenzie Recycling) with a lower tipping fee at SML. The Post-MRF rate is a sliding scale based on the percentage of materials a facility recovers, with a higher recovery rate equaling a lower tip fee. Facilities can realize the majority of rate savings without achieving what may be very achievable and reasonable recovery rates.

## 2019 MANAGEMENT PLAN DETAILS

The County intends this regional-looking Management Plan to coordinate efforts of the County, its municipal partners, and other industry stakeholders to advance the management of the WMD systems as well as the community's systems for a comprehensive and coordinated approach to solid waste management. The details of the plan listed in the following pages, were developed from the stakeholder input themes, the R3 analysis and recommendations and the shaping of strategies by the staff and management team of LCWM.

Each of the following chapters pertain to a component of the solid waste system and include the relevant Sustainable Waste Management Strategies and Actions. These strategies and actions are designed to build upon existing infrastructure to establish the framework for implementing specific programs. The chapters were developed by sorting all the actions into similar categories and were then named:

- **Chapter 4: Functional Facilities**
- **Chapter 5: Strategic Management**
- **Chapter 6: Valuable Partnerships**
- **Chapter 7: Effective Programs**
- **Chapter 8: Sustainable Revenue**

An examination of both Lane County and the local community infrastructure for solid waste and recycling management facilities identified the strategies and associated actions listed in the chapters. When implemented, these strategies are intended to improve the overall solid waste system in Lane County. The strategies and actions presented in these chapters include target completion date or timeline, anticipated resources necessary, and metric for completion of deliverable.

# Chapter 4 – Functional Facilities

*Facilities strategies relate to equipment, internal policy, planning, and recycling.*

## Strategies and Actions

Focus Area #	Strategy	Actions	Target Date	Resources & Cost	Responsible Party	Success Metric
Facilities 4-1	<b>Develop uncompact material recovery capacity (public or private) for processing loose waste from transfer stations.</b>	a) Update Good Company market study and conduct financial analysis; equipment/cost-benefit analysis.	FY20	Consultant: \$25,000	County Waste Management Team Manager	Update completed
		b) Review and analyze need and opportunities for state targeted as well as other locally impactful materials. Analyze feasibility for siting locally, or transport system to other facility.	FY20	Dedicated staff time/Lane County Economic Development	County Waste Management Team - Waste Reduction	Report completed on need, capacity, and opportunities
		c) Work with Lane County Community & Economic Development, Eugene Chamber of Commerce, Bulk Handling Systems, and other stakeholders to determine feasibility for new facility	FY21	TBD internal and external	Senior Public Works Leadership	Stakeholder input complete
		d) Decision on Public or Private facility pursuit	FY21		Senior Public Works Leadership and BCC	Decision complete
		e) Workplan regarding decision	FY22	TBD internal and external	TBD	Work plan developed
Facilities 4-2	<b>Maintain and enhance efficiency, security and safety through operational practices and equipment acquisitions (annually in pre-budget process).</b>	a) Annually review systems for areas of need and research available technologies that fit the need, ROI and cost benefit analysis.	Annually December	Staff/budget process	County Waste Management Team	Needs met
		b) Develop list, priority and timeline	Annually January	Staff/budget process	County Waste Management Team	List Recorded
Facilities 4-3	<b>Explore new proven alternative methods of waste treatment and recovery. (Supports strategy 5-9).</b>	a) Annually review whole system for new industry developments or proven technologies	Annually Fall	Staff time	County Waste Management Team	Summary report on findings, decision on further study
		b) Annually review Short Mountain Landfill management, for new industry developments or proven technologies	Annually Fall	Staff time	County Waste Management Team	Summary report on findings, decision on further study
		c) Further study as appropriate	As needed	TBD	County Waste	Go/no go on

Lane County Solid Waste Management Plan 2019

				Management Team	implementation	
Facilities 4-4	<b>Develop Plan for siting new Central Receiving Station.</b>	a) Review results of strategies 4-1 for inclusion in new site footprint/plan.	FY19-FY21	\$40,000	Staff/consultant	Review completed
		b) Develop specifications and needs for new site with room to grow; Identify potential locations,	FY19-FY21	See above	Staff/consultant	Specifications completed
		c) Site selection process timelines, budgets, stakeholder and public input.	FY20-FY21	\$75,000	Consultant	Final Plan Developed
		d) Present qualified and framed options to BCC.	FY21	Time & materials	Staff	BCC decision
Facilities 4-5	<b>Develop and Execute a Rural Transfer Station Enhanced Operational Efficiency and Recovery Plan.</b>	a) Conduct rural transfer station analysis of short- and long-term optimizations 1) Inventory site configurations, hours, limits and opportunities. 2) Make equipment/operational changes as needed.	FY22-FY24	\$30,000-\$40,000	Waste Management Division staff	Changes made, recovery increases
		b) Assess and analyze new recovery options at rural sites.	FY24-FY25	Time & materials	Staff time	See above
Facilities 4-6	<b>Explore/Develop a long-term strategy for leachate management.</b>	a) Research and determine budget and feasibility measures for building a pipeline directly from Short Mountain Landfill to wastewater system.	FY20	Time & materials	Staff/Consultant	Completed Budget plan
		b) Actively participate in regional discussions on Goshen or other nearby development and regional waste water treatment systems.	FY19-FY20	Time & materials	Staff and Management	Participation occurs
Facilities 4-7	<b>Work with federal, state and regulatory agencies to develop short- and long-range plans for landfill expansion and mitigation of development impacts.</b>	a) Maintain ongoing environmental protection, mitigation and restoration in advance of landfill expansion need. Cooperate and coordinate with EPUD and other agencies as needed	Ongoing	Time & materials	Staff/consultant	Annual reporting
		b) Develop/Provide public access and interpretive signage	FY23	Time & materials	Staff	Completed
Facilities 4-8	<b>Identify facility/capacity expansion potential of private recyclers or other local government entities, with a goal toward increasing</b>	a) Determine regional technical feasibility and quantities of sorting specific materials. (See also Facilities 4-1 and 4-4).	FY22-FY23	Time & materials	Staff/contract	Report completed
		b) Seek partners with existing capacity and/or interest.	FY23	Time & materials	Staff / county Economic	Partners identified

Lane County Solid Waste Management Plan 2019

	<b>recycling opportunities and markets/options.</b>				Development	
		c) Engage in market development working with DEQ/ Biz Oregon, and others as needed. Examples: grants, regional coordination, contracts, and material commitments.	FY22-onward	TBD	Staff /county Economic Development	Increased Recycling Op. Increased Recovery
Facilities 4-9	<b>Reduce greenhouse gas and particulate air emissions in WMD operations.</b>	a) Add reduced greenhouse gas (GHG) emissions to specifications and selection processes for equipment, services and operational decisions.	FY19	Staff/budget process	County Waste Management Team - Manager	Integrated into all specs. and selection criteria
		b) Prioritize renewable energy sources, credits and green building when planning new facilities/operations.	FY19	Staff/budget process	County Waste Management Team - Manager	Integrated into all facility decisions
		c) Minimize direct emissions of greenhouse gases from landfills and other facilities.	FY20	Staff/budget process	County Waste Management Team Manager	Annual internal analytical review showing improvement



# Chapter 5 – Strategic Management

*Management strategies relate to advocacy, analysis, internal policy, metrics, and planning.*

## Strategies and Actions

Focus Area #	Strategy	Actions	Target Date	Resources & Cost	Responsible Party	Success Metric
Management 5-1	<b>Achieve Lane County's stated goal of 63% waste recovery by 2025.</b>	a) Review and analyze the opportunities to increase recovery of various material types prioritized by quantity currently disposed, operational feasibility and BCC support	FY19	Staff/budget process	County Waste Management Team Manager	Analysis complete
		b) Review and analyze internal waste tracking/coding to ensure accuracy in "counting" and "non-counting" wastes	FY19	Staff/budget process	Waste Reduction staff	Analysis complete
		c) Review and analyze existing collection and recovery programs, i.e., residential, multifamily, C&D MRF discount, etc. to identify impact on recovery rate, opportunities to expand, promote or otherwise increase recovery rate	FY20	Staff/budget process	Waste Reduction staff	Analysis complete
		d) Increase efforts and opportunities for prevention of residential and commercial waste generation (prevent purchasing, repair, reuse). Increase opportunities for reuse, repair, deconstruction and waste prevention of high impact building materials.	FY21	Staff/budget process	Waste Reduction staff	At least 3 new initiatives started
Management 5-2	<b>Review feasibility and benefits of establishing collection service franchises for unincorporated areas, initiate as appropriate.</b>	a) Conduct a financial feasibility study on franchising waste collection activities in unincorporated Lane County to provide guaranteed territories so service providers have greater security and ability to offer programs.	FY20	\$50,000 to study; \$100,000 to study and implement	WMD Manager and consultant	Study Completed

Lane County Solid Waste Management Plan 2019

		b) Compile benefits and challenges, requirements and consequences.	FY21		WMD Manager and consultant	Completed
		c) Present to BCC and conduct public process for final decision	FY21		WMD Manager and consultant	Completed
Management 5-3	<b>Develop improved county wide data collection and reporting system to assess effectiveness of programs and policies, e.g. participation rates of yard debris, commercial, food waste and multifamily recycling programs by city.</b>	a) Research available systems and structures currently in use by others. Review and analyze serviceability, functionality and cost.	FY20	Estimated \$20,000	Waste reduction staff	Study completed
		b) Set up meetings with private haulers, city staff and councils to obtain input and agreement	FY20		Waste reduction staff	completed
		c) Incorporate contract language into Lane Code, IGAs or franchise agreements as appropriate	FY21		WMD Manager and Waste Reduction staff	Completed or not as deemed by agreement
		a) Research and identify examples, structural limitations, requirements, benefits, challenges and opportunities of forming JPA	FY20	Staff costs/consulting costs \$50,000+	WMD Manager Consultant and Lane County Intergovernmental Relations Officer	Completed research with at least three viable options
Management 5-4	<b>Explore feasibility and benefits of establishing a Waste Management Joint Powers Authority (JPA) with urban cities or countywide if interest is there.</b>	b) Explore interest with BCC, individual city staff and city councils	FY21	Staff costs/consulting	WMD Manager Consultant and Lane County Intergovernmental Relations Officer	Meet with all potential partners
		c) If sufficient interest, develop draft JPA agreement and work plan	FY21	Staff costs/consulting	Partners	JPA drafted
		d) Negotiate and execute member agency agreements	TBD	Staff costs/consulting	Partners	JPA agreement executed
		a) Establish formal relationship with county government relations officer; attend quarterly intergovernmental meetings as appropriate.	FY20	Staff costs	WMD Manager Consultant and LC Intergovernmental relations officer	Completed
Management 5-5	<b>Review current IGAs with cities to explore additional partnership value or opportunities (e.g., consistency, coordination, additional benefits).</b>	b) Examine current IGAs and determine potential changes, partnership benefits, or disposal agreement terms for proposal to cities.	FY22	Staff costs, consulting costs of \$25,000-\$50,000	WMD Manager Consultant and LC Intergovernmental relations officer	Completed
		c) Review any potential changes with Commissioners and City Councils to determine interest in pursuing implementation of updates	TBD		WMD Manager	IGAs

Lane County Solid Waste Management Plan 2019

to IGAs.

Management 5-6	<b>Perform annual audits of Material Recovery Facilities (MRF) to assess performance and maximize recovery.</b>	a) Conduct regional market study and economic analysis to assess local necessity for rate structure or changes to rates and explore alternative forms of partnerships/incentives that would increase material recovery	FY20	\$20,000-\$50,000 and staff time	WMD Manager/consultant	Completed
		b) Conduct annual MRF audits	Annually	staff costs	County	Completed
		d) Implement new MRF Rate Structure or changes as appropriate	TBD	staff costs	County	Completed
Management 5-7	<b>Support product stewardship and extended producer responsibility legislation and policy creation at state and federal level.</b>	a) Join/support organizations that assist government agencies in establishing cooperative agreements with industry such as Product Stewardship Institute	Ongoing	Staff costs	WMD applicable staff	Join or formally support at least two organizations
		b) Cooperate with local, regional, state and national efforts to develop and implement policies, such as recycled-content requirements, deposits, disposal bans and advance recycling fees, that encourage product stewardship programs.	Ongoing	Staff costs	WMD applicable staff	As available
		c) Educate public and private sector consumers about product stewardship and, in particular, their role in purchasing environmentally preferable products.	Ongoing	Staff costs	Waste Reduction staff	At least one outreach initiative targeted toward affected stakeholders or general public
Management 5-8	<b>Recommend and support adoption of Recycled Content Product Procurement Standards for Lane County government departments; encourage purchasing of products that contain post-consumer recycled materials with emphasis on locally recovered materials.</b>	a) Articulate the needs and benefits of amending current purchasing policies to require purchasing recycled content products. Review other Counties' recycled product purchasing policies.	Ongoing until adopted	Staff/budget process	Waste Reduction staff working with County Administration Procurement office	Report highlighting review
		b) Identify all opportunities for use of Locally recovered materials compost, wood chips, mulch, aggregate and other materials as part of public works and other County Departments and quantify potential tonnage.	Annually until adopted	\$10,000-\$20,000	Waste Reduction staff working with County Administration Procurement office	Completed

Lane County Solid Waste Management Plan 2019

		c) Recommend recycled product procurement policies for all County departments	Annually until adopted	Staff/budget process	Waste Reduction staff working with County Administration Procurement office	Presented to County Administration
Management 5-9	<b>Implement waste prevention campaigns in County departments as demonstration project for broader business waste prevention efforts</b>	a) Identify models/examples of successful efforts from other counties and industries. Develop a program to encourage waste prevention and increased efficiencies, and waste reduction across Lane County's Departments/facilities	FY20	Staff costs	Waste Reduction staff working with County Admin	Implemented
		b) Track adoption of new efforts by County departments and report out to CAO/community	FY21 and Annually	Staff costs	Waste Reduction staff	10 new efforts made in five departments

# Chapter 6 – Valuable Partnerships

Partnership strategies relate to agreements, communication, contracts, and stakeholder participation.

## Strategies and Actions

Focus Area #	Strategy	Actions	Target Date	Resources & Cost	Responsible Party	Success Metric
Partnerships 6-1	<b>Pursue stronger interagency coordination and/or planning with private industry to explore options for economic development and increased recovery</b>	a) Review feasibility and benefits of establishing a Waste Management Joint Powers Authority (JPA) with cities in Lane County versus using updated IGAs, or other partnership options. Or long-term disposal agreements with cities and haulers	FY20	Staff costs/consulting costs of \$50,000	WMD/ Staff & management with Consultant	Completed research with at least three viable options
		b) Engage in public process with stakeholders, elected officials. Share results with citizens	FY22	Staff/consulting costs of \$25,000 for facilitation and outbound material distribution	WMD/ Staff & management with Consultant	Meet will all potential partners, public engagement
		c) Seek final decision of elected officials	FY22	Staff costs/consult to present?	WMD Manager/Partners	Decision made
Partnerships 6-2	<b>Develop relationships with partners in rural communities to engage in locally applicable waste prevention or recycling efforts</b>	a) Survey rural communities to identify needs and opportunities, possible partner(s), and funding required to implement local projects in rural communities.	FY21	Staff time & materials	Waste Reduction Specialist	At least three projects identified
		b) Support or identify solutions to the 3 projects identified	FY21 and ongoing as identified	Staff time & materials		Projects completed/achieved
Partnerships 6-3	<b>Re-establish the Resource Recovery Advisory Committee to the Board of County Commissioners, or establish a Solid Waste Advisory Committee</b>	a) Work with BCC and CAO to establish committee, structure, authority, work plan and etc.	FY19	Staff time & materials	WMD, Staff, BCC and CAO	Completed
		b) Determine appropriate member types, job description, application process, and announce formation	FY20	Staff time & materials; consulting costs (setting up the committee, creating the meeting pattern/structure) of \$10,000	WMD, CAO	Completed
		c) Conduct interviews and initiate	FY20	Staff time & materials	WMD, CAO	Completed

# Chapter 7 – Effective Programs

*Programs strategies relate to compost, the reduction, reuse, and recycling of materials, and safe disposal.*

## Strategies and Actions

Focus Area #	Strategy	Actions	Target Date	Resources & Cost	Responsible Party	Success Metric
Programs 7-1	<b>Increase and improve organics collection programs county-wide.</b>	a) Explore challenges and opportunities in each localized community in Lane County. Review ability to provide yard debris and food waste collections	FY20 / FY21	staff time/materials	WMD waste reduction staff	Data collected and reported
		b) Evaluate and analyze Eugene and other cities' organics programs	FY21	staff time/materials	WMD Manager/staff	Report created/shared with targeted communities
		c) Encourage/incentivize other municipalities to adopt programs and/or implement county-run organics collection (Bulk Handling MRF systems, transfer station collection)	FY22	staff time/materials	WMD Manager/staff	One or more municipalities adopt program
Programs 7-2	<b>Increase participation, recovery rate and quality of Business Recycling Programs county-wide.</b>	a) Explore challenges and opportunities in rural communities and in individual business sectors.	FY21	staff time/materials	WMD staff/contractor	Create reports/present to cities and businesses
		b) Provide support and develop resources to increase business recycling - by sector, by material or other strategies	FY23	staff time/materials	WMD staff/contractor	Five sector-based initiatives developed and presented.
Programs 7-3	<b>Increase quality, recovery and participation in Residential curbside recycling programs.</b>	a) Explore challenges, needs and opportunities, strategies and gaps. Present to cities and communities. Work with stakeholder to determine how to achieve uniformity in order to reduce confusion.	FY21	staff time/materials	WMD staff	Annual status report on efforts and results
		b) Conduct annual outreach campaigns that focus on reducing contamination and increasing participation in recycling opportunities	Ongoing	staff time/materials	WMD staff	Campaign implemented and results reported
Programs 7-4	<b>Improve Multifamily recycling access. Prepare for state rule change that all multi-family tenants have</b>	a) Monitor and participate in statewide stakeholder group on the subject. Engage and inform Lane County cities and haulers of developments in state rulemaking	FY19 - FY25	staff time/materials	WMD staff	Ongoing

Lane County Solid Waste Management Plan 2019

	<b>opportunity to recycle by 2025.</b>	b) Develop resources and guidelines for property managers per statewide rulemaking	Ongoing	staff time/materials	WMD staff	Resources developed
		c) Comply with state rule(s) in areas inside urban growth boundaries (cities over 4,000)	2022	staff time/materials	WMD staff	Compliance reached
Programs 7-5	<b>Increase Accessibility for non-English speakers in all program functions, materials and outreach.</b>	a) Examine needs of our community, demographic languages and %, conduct gap analysis. Examine examples of outreach and engagement strategies of other similar communities	FY21	staff time/materials	WMD staff	Data collected and compiled for decision makers
		b) Respond to requests and opportunities as available.	Ongoing	staff time/materials	WMD staff	Requests and needs reported and responded to
		c) Allocate resources to accommodate needs and create solutions	FY22	staff time/materials	WMD staff/manager	Resources developed and allocated
Programs 7-6	<b>Support local efforts to increase the prevention of wasted food that is suitable for feeding people or animals.</b>	a) Work with partners and community groups to assist with food rescue efforts	FY23 ongoing	staff time/materials	Joint City/County	Annual assessment
		b) Promote and support solutions for reducing wasted food in commercial food businesses	FY23	staff time/materials	WMD staff/partners	Identified solutions tracked and reported
Programs 7-7	<b>Increase scope and reach of educational messages to new audiences and new platforms to explain the upstream and climate impacts of our waste habits.</b>	a) Increase outreach via social media, digital advertising, other online tools or new opportunities	FY21	staff time/materials	Waste reduction staff	All education campaigns utilize at least one new outreach method
		b) Create presentations or other outreach/engagement efforts for local and regional industry groups.	FY22	staff time/materials	Waste reduction staff	All program areas provide one or more new presentation
Programs 7-8	<b>Increase reach of Master Recycler Program activities with effective tools, resources and planning.</b>	a) Develop tools and resources to encourage leadership of program graduates to spread the message to their circle of influence. Articles, Talking points, Letters to Editor templates, etc.	FY22	staff time/materials	Waste reduction staff	New leadership or action resources added and results reported
		b) Initiate additional learning opportunities e.g., focus teams, public presentations/ meetings, or action groups related to local waste initiatives: Repair2reuse, Plastic, Zero Waste Living, etc.	FY23	staff time/materials	Waste reduction staff	Annual assessment of efforts and results

Lane County Solid Waste Management Plan 2019

Programs 7-9	<b>Implement online reporting and other tools or systems to facilitate community leadership.</b>	a) Research and identify available tools and systems to motivate, facilitate and record leadership actions and reporting by Master Recyclers	FY20	staff time/materials	Waste reduction staff	Annual assessment of efforts and results
		b) Allocate required resources, install and implement as appropriate	FY21	staff time/materials	Waste reduction staff	New reporting tool and online system(s) implemented
Programs 7-10	<b>Develop business waste prevention, buy recycled campaigns focused on high impact material types or business sectors.</b>	a) Research and identify high impact material types, business sectors and available prevention techniques	FY21	staff time/materials	Waste reduction staff	Data collected and reported
		b) Develop campaign plans that target specific materials/generators/prevention techniques and that encourage recycled content purchasing from local and regional manufacturers as available	FY22	staff time/materials	Waste reduction staff	Three campaigns developed
		c) Measure impacts of campaigns using awareness survey or other method	FY23	staff time/materials	Waste reduction staff	Majority of respondents show awareness
Programs 7-11	<b>Review and assess effectiveness of Construction and Demolition Recycling Requirement rules and policies.</b>	a) Analyze system for methods to effectively track data points to measure success of Construction and Demo Requirement. Participate with DEQ or others on Waste Characterization Studies.	FY20 / ongoing	staff time/materials	Waste reduction staff	Methods identified and tracking implemented
		b) Conduct Survey / Campaign or Education program for small contractors and DIYers on how to reduce targeted waste, reuse when doing a construction project.	FY21	staff time/materials	Waste reduction staff	Survey or campaign created and outreach results reported
		c) Seek recycle markets for targeted materials and potentially other recyclable construction materials	FY21 / ongoing	staff time/materials	Waste reduction staff	Markets identified, more material types diverted
		d) Work with cities and haulers to identify changes needed to maximize recovery of targeted materials	FY22	staff time/materials	Waste reduction staff	Effective cooperation with cities and policy changes implemented.
Programs 7-12	<b>Develop residential and business HHW outreach/ education program.</b>	a) Create education campaign/strategy to encourage waste reduction of materials that have highest impact and opportunity for change.	FY20 / ongoing	staff time/materials	Special Waste staff	Campaign implemented, results reported Bilingual in Spanish
		b) Promote benefits and convenience of Services provided by HHW/Special waste program	FY21	staff time/materials	Special Waste staff	2 or more media events, 2 or more new promotion venue.
Programs 7-13	<b>Develop reuse</b>	a) Determine quantities and products	FY22	staff	Special Waste	2 years data and several



Lane County Solid Waste Management Plan 2019

	<b>program of usable HHW products.</b>	suitable for reuse, determine methodology that protects from liability and provides fair distribution to deserving entities.		time/materials	staff	example systems, local partners identified and reviewed
		b) Initiate newly determined system, as appropriate	FY23	staff time/materials	Special Waste staff	Determination is made and reported
Programs 7-14	<b>Expand Household Hazardous Waste (HHW) Collection Opportunities.</b>	a) Expand the mobile collection opportunities to include the smaller more rural communities of Lane County.	FY20 / ongoing	staff time/materials	Special Waste staff	Add 4 additional annual events in small communities.
		b) Install collection and storage structures for more-permanent collection opportunities in rural communities	FY23	staff time/materials	Special Waste staff	At least one structure/collection achieved
		c) Increase convenience / access to Household hazardous waste Facility appointments or additional collection opportunities	FY21	staff time/materials	Special Waste staff	Increases reported annually
Programs 7-15	<b>Expand the load check program as necessary to prevent prohibited waste and identify recycling and other diversion opportunities.</b>	a) Increase the dump-and-sort load checks of business/commercial loads and random spot checks of self-haul loads at transfer stations	FY20 / ongoing	staff time/materials	Special Waste staff	Increase reported annually
		b) Optimize the use of staff time by targeting industry specific loads that have the most potential to contain prohibited or recyclable materials.	FY21/ ongoing	staff time/materials	Special Waste staff	Increase in identified prohibited waste
Programs 7-16	<b>Increase the use of Lane County's Hazardous Waste disposal system by Conditionally Exempt Generators (CEGs).</b>	a) Identify CEGs of hazardous waste in Lane County that are not currently using a Lane County facility.	FY23	staff time/materials	Special Waste staff	List created
		b) Develop educational programs that target businesses who are not properly handling hazardous and special wastes.	FY24	staff time/materials	Special Waste staff	Outreach developed and implemented, and results recorded

## Chapter 8 – Sustainable Revenue

Revenue strategies relate to existing or new income and rates.

### Strategies and Actions

Focus Area #	Strategy	Actions	Target Date	Resources & Cost	Responsible Party	Success Metric
Revenue 8-1	<b>Encourage the continuation and expansion of methane gas capture/use program.</b>	a) As landfill expands, work to ensure continuation and expansion of gas collection program.	2-4 year intervals	Staff time & materials	WMD staff	Total gas volume/ total captured efficiency rate
		b) Explore benefits and potential of using the methane for combined heat & power or transportation fuel.	2-4 year intervals	Staff and Consultants	WMD staff	Report to WMD manager
		c) Periodically review effectiveness, capacity and finances. Consider capitol expenses relative to income potential	2-4 year intervals	Staff and Consultants	WMD staff	Report to WMD manager
Revenue 8-2	<b>Examine actual disposal costs and System Benefit Fee program costs to ensure fees are accurate.</b>	a) Create the matrix or tracking system for all disposal costs and System Benefit Fee program costs	3 year interval	Staff or independent	WMD staff	Matrix created
		b) Look at break-even of all facilities and other program that could be funded with system benefit fee money	3 year interval	Staff or independent	WMD staff	
		d) Update fee structure as necessary	3 year interval	Staff or independent	WMD staff	
		e) Review alternate fee structures i.e. flow control	3 year interval	Staff or independent	WMD staff	
Revenue 8-3	<b>Evaluate waste importation to Short Mountain Landfill.</b>	a) Review and develop market study to determine necessary life/volumes/fees from other counties to finance future recovery and reduction programs or technologies	FY20	Staff/consultant-market study of \$15,000	County	Report complete
		b) Pursue BCC approval for fees and terms. Negotiate to secure available tonnages.	FY20	Waste Management Division Manager	Public Works Director	Approval and agreements completed

## Chapter 9 – Conclusion

Through careful assessment, stakeholder engagement, and staff input, the 2019 Lane County Solid Waste Management Plan is a well-planned step into our future. The SWMP will guide the Waste Management Division not only on the path to the 2025 diversion goal, but toward functional facilities, strategic management, valuable partnerships, effective programs, and sustainable revenue.

Through *functional facilities*, we can better serve our communities, partners, haulers, and environment.

Through *strategic management*, we are more likely to reach our 63% waste diversion goal, improve our performance, and explore new opportunities.

Through *valuable partnerships*, we can cultivate stronger coordination, improve opportunities and reach new audiences.

Through *effective programs*, we can increase waste recovery and keep communities safe from hazardous waste.

Through *sustainable revenue*, we can study innovative ways to create revenue while keeping costs and fees fair.

Lane County is eager to implement these strategies and actions in a coordinated and collaborative effort with all the key stakeholders in the system – cities, haulers, business and nonprofit partners, and rural communities. Lane County and local governments will work together to manage waste and recycling systems by developing agreements and a policy framework that guides us toward a healthier and more sustainable regional system – providing opportunities not only to recycle, but also to reduce the amount of stuff we buy, fix what we use, and sell those things that are still useful.

This reduction in the consumption of new goods is an essential action to reduce the greenhouse gas emissions that come from the production and transportation of goods and food, which represent the majority of all consumption-based greenhouse gas emissions of Oregon communities. Lane County will work with private collection services and processing companies to ensure costs and risks are shared across the regional customer base, so that the system is equitable and fair.

### **We can get there.**

Lane County Waste Management is excited to move forward with our partners and deliver the new paradigm of materials management, getting every bit of value out of our goods and food, and move beyond just the recycling of packaging.



## Chapter 10 – Resources

### Supporting Documents

- [Lane County Wasteshed 2010 Recovery Plan](#), 2013 update
- [Solid Waste Management Plan Development: Phase 2 – Master Plan Support Document](#) (Consultants Analysis and Recommendations), R3 Consulting Group, Inc., July 2017
- [Lane County Recycling Guide](#)
- [Lane County Waste Composition Data](#)

*These documents can be found on Lane County's website at [www.lanecounty.org/waste](http://www.lanecounty.org/waste)*

### Links and Recommended Reading

#### Lane County Resources

- [Lane County Code Chapter 9](#), see 9.060: Urban Growth Area Recycling Regulations
- Lane County's [Lane Manual](#), see

*These documents can be found on Lane County's website at [www.lanecounty.org](http://www.lanecounty.org)*

#### State of Oregon Resources

- [DEQ's 2050 Vision of Materials Management in Oregon](#) webpage
- DEQ's [Greenhouse Gas Emissions Reports](#)
- [Oregon Senate Bill 263](#)

*The Oregon DEQ website address is [www.oregon.gov/deq](http://www.oregon.gov/deq)*

#### Eugene Climate Action Resources

- [Sustainability in Eugene](#) webpage
- [Climate Action Plan 2.0](#) webpage

*These webpages can be found on City of Eugene's website at [www.eugene-or.gov](http://www.eugene-or.gov)*

#### Climate Change Science

- United Nations Intergovernmental Panel on Climate Change [Special Report on Global Warming of 1.5°C](#) (2018)

*The UN IPCC website address is [www.ipcc.ch](http://www.ipcc.ch)*