



AGENDA COVER MEMO

Memorandum Date: 09/12/23

Order Date: 09/26/23

TO: Board of County Commissioners

DEPARTMENT: Public Works

PRESENTED BY: Dan Hurley, Public Works Director
Jeff Orlandini, Waste Management Division Manager

AGENDA ITEM TITLE: DISCUSSION & ACTION / IN THE MATTER OF VETTING THE
CONSTRUCTION OF A MIXED WASTE PROCESSING FACILITY

I. MOTION

None proposed. Staff is seeking feedback and direction.

II. AGENDA ITEM SUMMARY

The Waste Management Division is seeking input from the Board for vetting the construction of a mixed waste processing facility to be constructed and operated by Bulk Handling Systems.

III. BACKGROUND/IMPLICATIONS OF ACTION

A. Board Action and Other History

In July 2019, the Board adopted the updated Solid Waste Management Plan (SWMP) as a Special Purpose Plan of the County's Rural Comprehensive Plan (Ordinance No. PA 1377 & 19-04). The SWMP outlines goals and actions further discussed below.

In February 2020, the Board adopted Order and Resolution 20-02-04-04, establishing a Climate Change Strategy for Lane County.

In October 2020, the Board approved the Climate Action Plan Phase 1: Operations Recommendations Report (B.O. 2 0-10-20-08). The plan identified the Short Mountain Landfill as the highest contributor (77%) of greenhouse gas emissions from County operations. The Action Plan recommended construction of an Anaerobic Digestion system at the Short Mountain Landfill as a key action for lowering emissions from the landfill.

In December 2021 Waste Management Division staff presented on past action taken and next steps in advancing materials management in Lane County. Bulk Handling Systems presented on waste processing technologies in use in other communities that may be viable in Lane County.

In March 2022 Waste Management Division issued a Request for Proposals for Waste Recovery Facilities to help the Division meet or exceed its 63% recovery goal. After a competitive process, the Division selected Bulk Handling Systems (BHS) to enter into a contract to further explore building a Waste Processing Facility located near Short Mountain Landfill.

In July 2023 the Division identified a potential location in Goshen, and in September 2023 BHS completed 30% design plans for the facility. Additionally, the Division and Bulk Handling Systems have determine cost estimates for the construction and operation of the processing facility.

B. Policy Issues

Oregon Revised Statute (ORS) 459.015 (1) (d): “It is in the best interests of the people of Oregon to extend the useful life of solid waste disposal sites by encouraging waste prevention and the recycling and reuse of materials, and by requiring solid waste to undergo volume reduction through recycling and reuse measures to the maximum extent feasible before disposal. Implementation of waste prevention and recycling and reuse measures will not only increase the useful life of solid waste disposal sites, but also decrease the potential public health and safety impacts associated with the operation of disposal sites.”

Per ORS 459.085, with respect to areas outside of cities, the Board of County commissioners may adopt ordinances to provide for the regulation, licensing or franchising of salvage businesses or the operation of salvage sites where such action is found necessary to implement any part of a solid waste management plan applicable in the county.

C. Board Goals

In 2015, the Oregon State Legislature passed new legislation updating the Opportunity to Recycle Act. 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. This goal is listed in ORS 459A.010.

In December 2019, the Board approved the revised 2018-2021 Lane County Strategic Plan adding the following Key Strategic Initiatives and Key Activity Area under the *Vibrant Communities* priority:

2.b. Protect and enhance our natural and built environments

2.b.2 Pursue programs to reach a 63% waste recovery rate by 2025

In 2022, the Board added the following objective to the 2022-2024 Strategic Plan:

2.b.7 Fully vet the construction of a waste processing facility for the Short Mountain Landfill.

D. Financial and/or Resource Considerations

Approval of the Waste Processing Facility will require tipping fee increases in order to maintain current Division levels of service while supporting the new facility operations.

The County is continuing negotiations with BHS to develop an operating agreement. The final agreement will include revenues to Lane County including an annual host fee. The agreement will also include ongoing expenses in receiving the waste byproducts from the sorting facility.

The proposed agreement would require the County to develop the site and construct a suitable building to house the sorting equipment. The 30% design for the facility estimated costs for site preparation and building construction at approximately \$50 million.

BHS would be responsible for supplying the sorting equipment and operating the facility to meet established performance thresholds. BHS estimates the processing equipment costs to be approximately \$85 million.

Final costs for the construction and operation of the facility may be reduced through tax credits, grant opportunities, and possible funding assistance from the State.

E. Health Implications

Organic material in the landfill decays anaerobically - producing methane, carbon dioxide, and other trace gases. Methane and carbon dioxide are categorized as pollutants due to their warming potential in the atmosphere. Additionally, carbon monoxide and particulates are produced when landfill gas is burned as fuel at the current gas-to-energy facility. The proposed waste processing facility would improve local air quality by reducing the output of gases and particulates from the landfill. The project would improve water quality by reducing the load strength of leachate (landfill wastewater) requiring treatment.

F. Analysis

The Waste Management Division's Solid Waste Management Plan was completed and presented to the Board for adoption in 2019. The plan guides the work of the division, with a large emphasis on waste reduction strategies, modernizing transfer stations, expanding services, and exploring waste diversion technologies and practices. With a

main component of this plan being achieving our 63% diversion goal, and with the landfill being recognized as the highest internal contributor to greenhouse gas emissions in the County climate action plan, the Division has focused on a mixed waste processing facility as a means to exceed the diversion goal and reduce greenhouse gas emissions.

To fully vet the construction of a mixed waste processing facility, the project has been evaluated through the Strategic Lenses outlined Board's Strategic Plan: *Stewardship of Resources, Equity, and Collective Impact*. Strategic lenses are perspectives from which strategic priorities and goals should be viewed, as well as questions that should be asked before strategies are implemented.

Stewardship of Resources:

➤ *How will we pay for this?*

The Waste Management Division operates out an Enterprise Fund. It is self-supported through user fees, known as tipping fees in the waste industry. The fund does not receive any money from taxes or the General Fund. The Division estimates an increase in tip fees of 11% per year for four years would be needed in order to maintain current levels of service, account for CPI increases, and cover the costs of operating the new facility. Tipping fee increases are predicted to reduce to 8% in year five, and 5% in year six. It has been estimated that for the typical customer using curbside waste collection, an 11% landfill tip fee increase would result in a monthly curbside increase of 50-60 cents.

➤ *Is what we are proposing sustainable?*

The proposed tipping fee increases would provide sustainable funding for the life of the facility. The processing facility is estimated to extend the life of the landfill by 25+ years while producing 1.3 million diesel gallon equivalent of natural gas per year via anaerobic digestion. Additionally, the facility will house a process line for recyclable materials that will be able to handle all of Lane County's recycling as well as take from neighboring counties, meeting the standards of the Recycling Modernization Act. Siting a processing facility in Lane County will avoid transportation of recyclable materials that are currently trucked to Portland/Vancouver area recovery facilities.

Equity:

➤ *How does this impact everyone in our community?*

The landfill is a resource for all residents to meet our community's long-term needs for safe and responsible solid waste disposal. Extending the life of the landfill is a benefit for everyone and succeeding generations. Likewise, reducing the emissions and the long-term environmental liability of the landfill benefits everyone. Increasing fees also carries an impact. However, a \$2/month increase spread over four years seems reasonable for the multiple benefits to be gained. In addition to the

environmental benefits, the proposed facility would enable residents to again recycle plastics that were discontinued from collection in the current system, such as plastic tubs and plastic film.

➤ *Have we sought feedback from key stakeholders?*

The Waste Management Division has held regular meetings with the Solid Waste Stakeholder Group which comprises of representatives from cities, waste haulers, and businesses and non-profits connected to the waste and recycling industries. County staff have regularly provided updates and solicited feedback since the inception of this project.

Collective Impact:

➤ *Are we including the right partners?*

BHS was selected through a competitive process over two other proposals because of the quality of the proposal in achieving desired outcomes and the proven track record of the company. Each of following outcomes were met or exceeded with the proposed solution:

- *Increase diversion of materials from the landfill to achieve a 63% county-wide recovery rate.*
 - The solution will enable the County to achieve over a 72% recovery rate.
- *Significantly reduce greenhouse gas emissions from Short Mountain.*
 - The processing facility is estimated to reduce over 100,000 tons of CO2 equivalent emissions.
- *Create local, sustainable economic development and jobs.*
 - The project will provide approximately 140 construction jobs and 65 ongoing jobs to operate the facility.
- *Construct and operate at an affordable cost to the rate payer.*
 - Annual fee increases will be kept to 50-60 cents per month for an average household using curbside garbage service.
- *Use proven processing systems.*
 - BHS is a worldwide leader in supplying waste processing equipment. The company has constructed numerous waste processing facilities, including several in California that staff have visited to observe the facilities in operation.

- *Achieve the above in a Public-Private Partnership format.*
 - The proposed agreement would be a partnership between Lane County as the owner of the facility and BHS as a private firm that would supply the equipment and operate the system. BHS is a local firm with a vested interest in ensuring the project is successful to serve as a showcase facility for future clients. BHS would shoulder approximately 70% of the investment into the facility.

➤ *Is this the most effective solution?*

- Lane County's recycling rate has plateaued in recent years, with the most recent annual analysis indicating a slight decrease in the recovery rate, despite numerous initiatives and education campaigns. A waste processing facility is the only solution anticipated to enable the County to meet the goals described above. The Division requested proposals and evaluated two other potential solutions. The BHS proposal was evaluated to be the most effective solution.

G. Alternatives/Options

If the waste processing facility does not move forward, the Division will continue to explore other strategies to increase waste diversion and will continue working with EPUD to improve the methane gas capture system at the landfill.

IV. RECOMMENDATION

Staff recommends continuing work to identify a suitable site for a mixed waste processing facility and to evaluate additional vetting criteria as requested by the Board. Waste processing is not currently an allowable use within zoning for the property that was evaluated for the 30% design. Site selection challenges will be discussed in detail in the presentation.

V. TIMING/IMPLEMENTATION

If recommended to move forward, the Division will continue to fully vet a location for the facility and aim to return to the Board before the end of the calendar year with a motion to purchase a property and to approve fee increases and contracts for the construction and operation of the processing facility.

VI. FOLLOW-UP

Follow-up discussions with the Board may be needed to evaluate zoning and land use options.

VII. ATTACHMENTS

None. A slide deck will be available at the presentation.



Waste Management Waste Processing Facility







Robert S. F. F.

Waste Processing Facility

- Project Overview
- Up Front Cost
- Operations Cost
- Financing Plan
- Vetting Status
- Next Steps



Overview- Waste & Climate

Waste Processing

- Divert up to 110,000 tons of waste annually
- Remove organics from waste stream
- Extend landfill life by 30 years

Climate Impact

- Anaerobic Digestion to create 1.3million diesel gallon equivalent of biogas
- Mitigate landfill methane - reducing over 100,000 tons of CO2 equivalent emissions.



Overview- Economic Impact

Infrastructure Investment

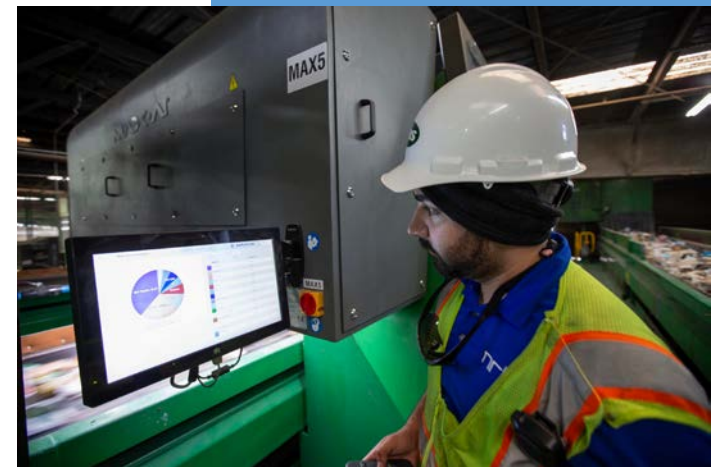
- \$135M investment into the community
- Funded 74% from private partnership

Job Creation

- 190+ jobs to construct facility
- 65 ongoing jobs

Business Opportunities

- Baled recycled materials available locally



Overview- Bulk Handling Systems

Industry Leader

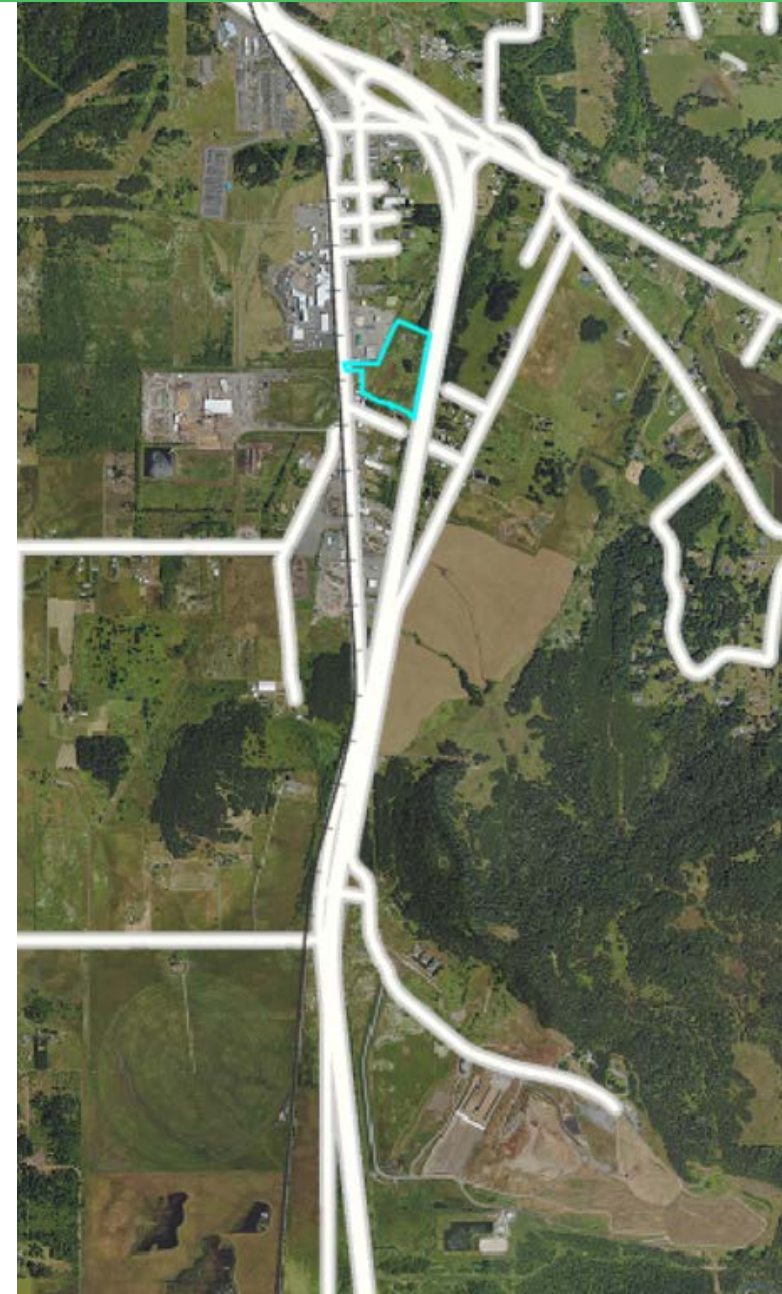
- Hundreds of facilities worldwide
- World headquarters in Eugene
- Showcase facility for BHS and the community



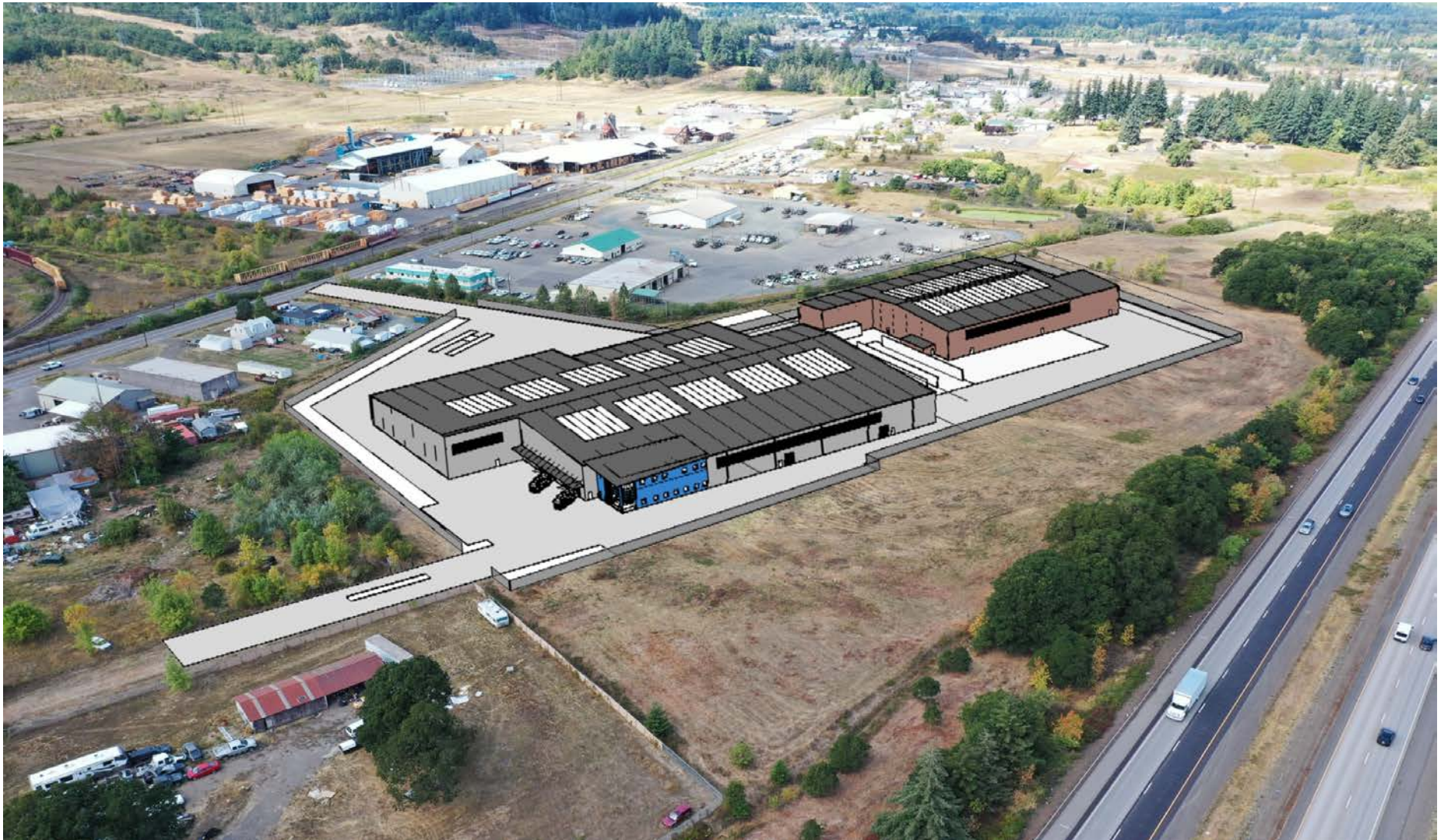
Overview- Land and Facility

Goshen development opportunity

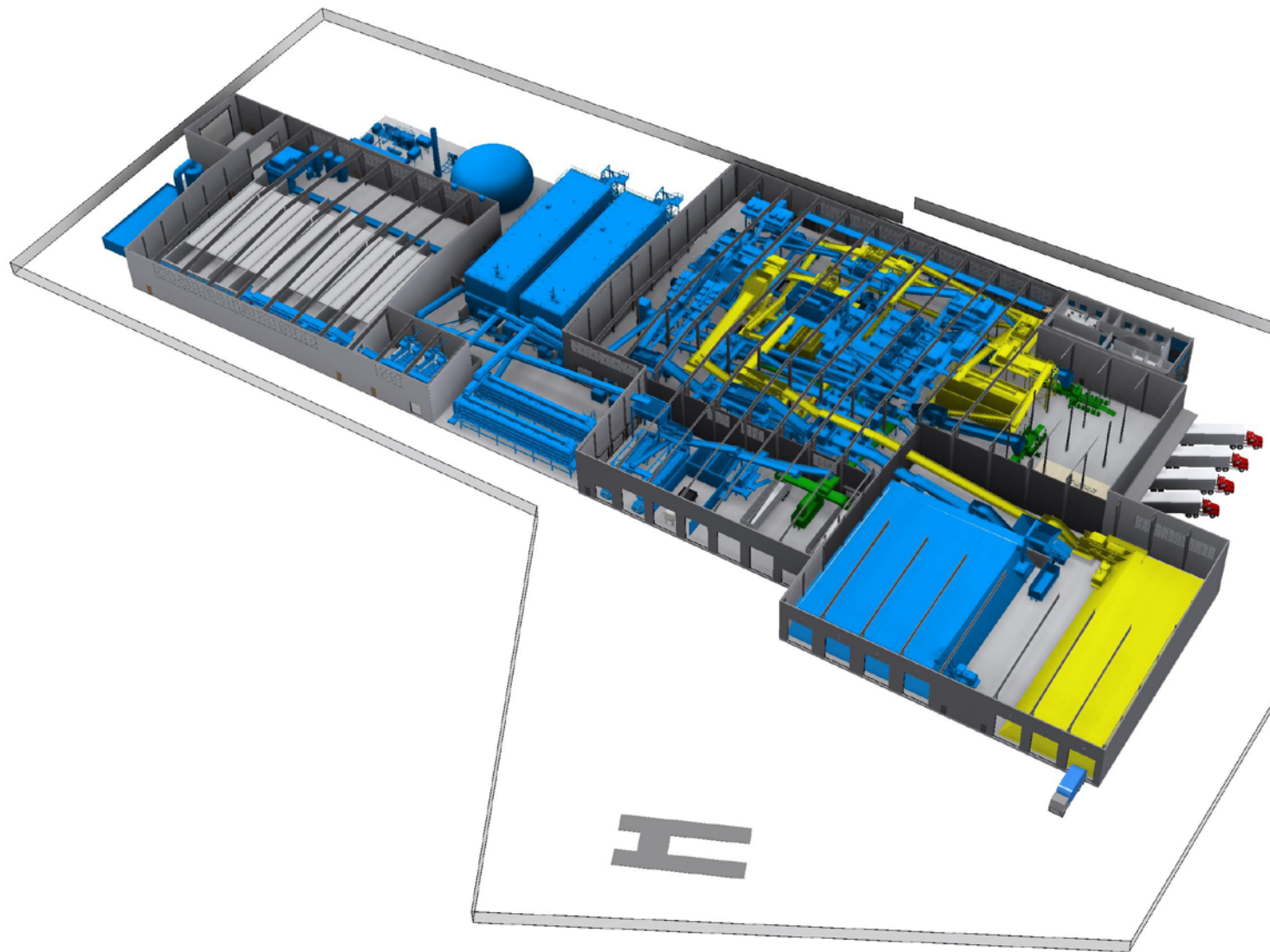
- 26 acre-property
- Zoning: Light Industrial
- Proximity to other underdeveloped industrial properties
- Purchase Sale Agreement secured



Facility Aerial View from I-5

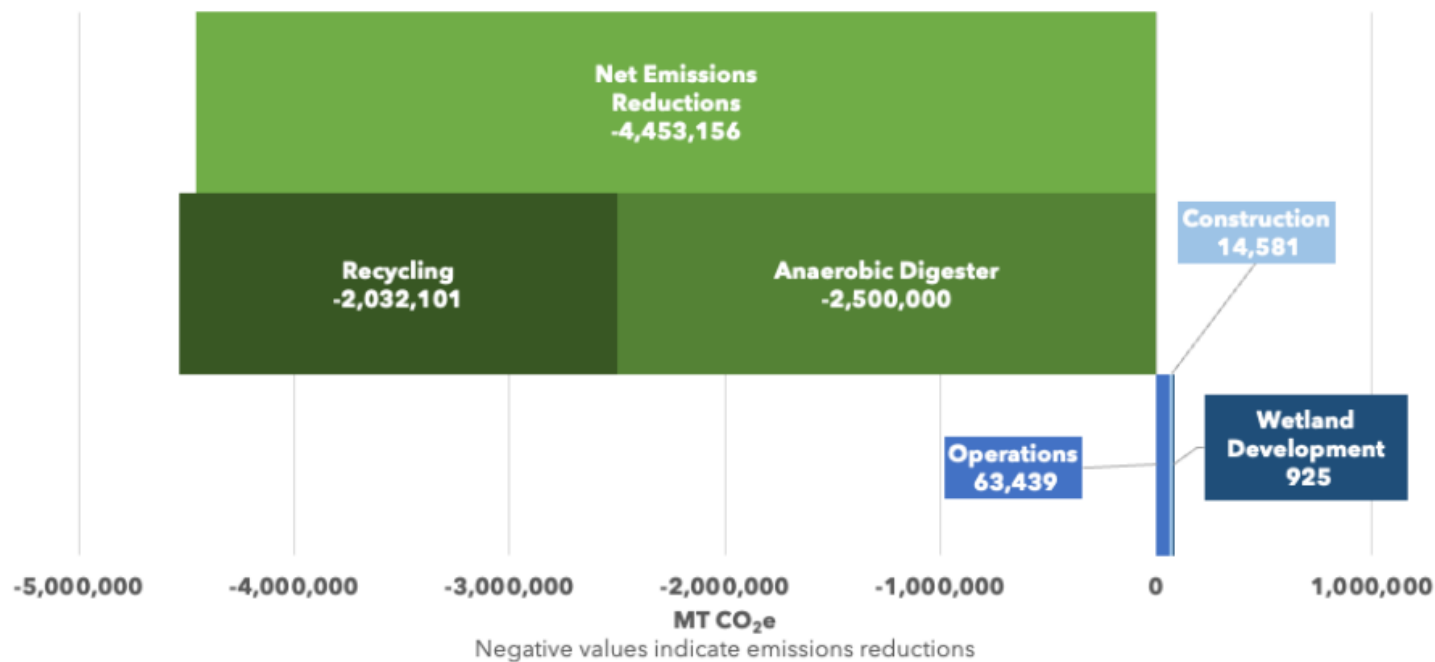


Facility Diagram



Overview- Carbon Footprint

Figure 1: Overall facility emissions compared to reductions over 25 years of operations (MT CO₂e).



Overall, this a net benefit of nearly 4.5 million MT CO₂e (metric tons of CO₂ equivalent, a common measure of greenhouse gas emissions) **over the 25 years of use**. The anaerobic digester and recycling activities are estimated to provide significant direct and indirect GHG benefits, and the **benefits would outweigh construction and operation emissions in just a few months**.

Overview- Education Center

- BRING alone does 20 tours for over 400 participants
- Direct view of processing floor
- Can be used for classroom groups, out of town visitors, meetings, etc.



Up Front Cost

- 30% design plan is complete
- Construction cost of building:\$50M. \$15M can be covered by BHS through tax credits. County cost = \$35M
- Land Cost: \$1.5M
- Waste Management Division would pay this up front in bonding.

Operations Cost

Processing Equipment

- BHS will pay up front costs of \$85 million for the processing equipment
- BHS will operate the facility
- County to continue current recycling and landfill diversion options

Ongoing Operations

- BHS charges a per ton rate to process waste
- The per ton charge will be incorporated into the tip fee charged by Waste Management Division

Financing Plan

Up Front Cost

- County to fund \$35 million through bonding
- BHS will operate the facility

Ongoing Operations

- Annual tipping fee increases over next two years to prepare for start up: 11% (8% + 3% CPI)
- Tipping fee increases for first two years of operation: 11% (8% + 3% CPI)
- Tipping fee increases beyond: tapering to CPI

Impact to Households

Curbside service

- Disposal portion is about 20% of monthly bill
- Landfill fee increase would result in a 2.2% monthly increase of about .55-.70 each year
- Includes annual CPI increase

Transfer station users

- Minimum fee (300lbs or 3 cans) increase would be \$1-\$1.75 increase over 4 years

Fee Comparisons

Lane County

- Minimum fee - \$13
- Per ton fee- \$95.16 (\$91.31 at SML)

Other Oregon Counties

- Minimum- Range from \$19.65 - \$70
- Per ton- Range from \$94 - \$148.45

Potential funding assistance

Grants

- SWIFR
- Climate Pollution Reduction Grants
- Community Renewable Energy Grant Programs

State Legislature

- Lottery bond allocation

Vetting Status



Technical feasibility

- ✓ System effectiveness
- ✓ Vendor validation



Siting feasibility

- ✓ Property evaluation
- ✓ 30% design
- ✓ Purchase agreement
- Zoning compatibility



Financial feasibility

- ✓ Long-term financial plan
- ✓ Tipping fee / rate analysis
- Bonding analysis
- Contract development

Strategic Lenses

Stewardship of Resources

- Financial sustainability
- System impact

Equity

- Household ratepayers
- Key stakeholders

Collective impact

- Economic development
- Climate goals

Competing Interests

Other Capital Improvement Needs

- Glenwood Transfer Station

Sanipac/Ecosort = Waste Connections

Waste Connections (TSX/NYSE) is the third largest solid waste management company in North America with a network of operations in 43 states and into Canada.

- Charges other haulers and Lane County for recycling
- Transports recycling to Portland/Vancouver facilities

Summary

- **Community Investment**

- Private investment of \$100 million
- County's Cost: \$35 million
- Job creation
- Sorted materials available locally

- **Operating Cost: \$11.2 million**

- Covered by modest increases to garbage rates

- **System Improvements**

- Increases diversion rate by over 15%
- Significant reduction to GHG emissions
- Improves recycling systems

Next Steps

- **Board Approval by Mid November**
 - Tipping fee increase approval
 - BHS contract documents approval
 - Goshen property sale approval
- **Waste Management Division**
 - Engagement with Cities / Community
 - Zoning adjustment
 - Financial plan / bonding
 - Site preparation
 - Wetlands mitigation planning

Board Direction

