JUNEAU'S SOLID WASTE

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PUBLIC VS. PRIVATE OWNERSHIP BY COMMUNITY

PUBLICLY OWNED DISPOSAL AND/OR HAULING		100% PRIVATELY OWNED
Anchorage	Valdez	
Yakutat	Cordova	
Homer	Cold Bay	
Seward	King Cobe	
Ketchikan	Nome	
Sitka	Denali	
Kodiak	Hoonah	Haines
Skagway	Kotzebue	Glenallen
Wrangell	Bristol Bay	JUNEAU
Petersburg	Palmer/MatSu	
Fairbanks	Pelican	
Bethel	Thorne Bay	
Angoon	Angoon	
North Slope	...	

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FLOW CONTROL IN ALASKA

LANDFILLS ARE NOT REGULATED AS UTILITIES

FLOW CONTROL CONTINUED

CBJ can gain control of Juneau's waste stream in one of two ways:

- Owning the waste hauling utility certificate
- Owning/controlling the solid waste disposal facility

Juneau's solid waste issues stem from disposal needs, not waste hauling.

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HOW WOULD CONTROL BENEFIT THE COMMUNITY?

The public would have input in operational decision-making.

For example:

- **Hours of operation**
- **Disposal rates**
- **Program creation and development (e.g., refrigerator, pressure-treated lumber, tire, and asbestos waste management)**

Currently, Waste Management (privately owned), does not need public input on these issues

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SOLID WASTE PLANNING

WE NEED TO TALK ABOUT OUR TRASH

If you live in Juneau, you've seen the landfill. Built in the 1960's, the Capitol Disposal Landfill (formally the Channel Landfill) has been a growing presence in Juneau ever since. It's difficult to know when the landfill will close, but the best estimate is in 10–15 years.

What will the community do with its trash after the landfill closes?

JUNEAU SOLID WASTE 101

NEWS & EVENTS

- DOE National Renewable Energy Lab (NREL) Report: Resource and Energy Recovery Opportunities from Waste in Juneau Alaska
- March 2025 – Final Draft of the Juneau Feasibility and Capital Costs Technical Memorandum
- March 17th – Presentation to PWFC on the Solid Waste Disposal Facility Feasibility and Capital Costs Technical Memorandum
- January 27th Solid Waste Presentation to the Public Works and Facilities Committee
- 2024 Waste Characterization Study – Final Report
- Guidance for Alaska Waste's Curbside Recycling Program

SOLID WASTE PLANNING EMAIL SIGNUP

SCAN ME

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Solid Waste Disposal Facility Feasibility and Capital Costs Technical Memorandum

Fall 2024 – Winter 2025

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CBJ Solid Waste Study

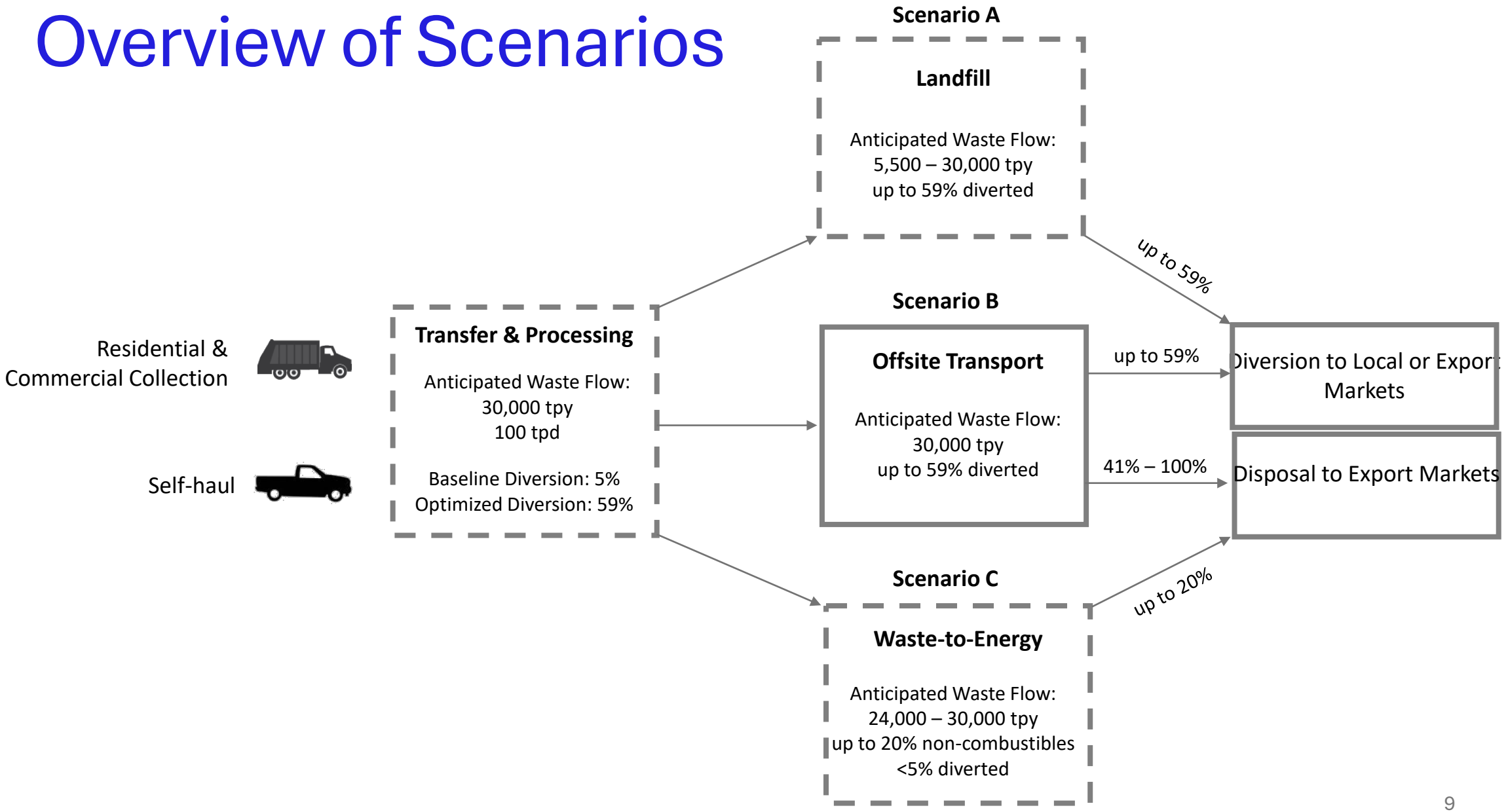
- Objective: Conduct a high-level evaluation of the capital costs and logistical feasibility in relation to three solid waste management scenarios.

- Methodology: Review of publicly available information and subject matter expert input, collaboration with CBJ.

Key Study Assumptions

1. Locations:
   - Transfer processing facility at lower Lemon Creek property
   - Siting study needed for landfill and WTE facility
2. Facility capacity calculations for 50- and 100-year waste stream projections
3. Diversion rates:
   - Current/baseline = 5%
   - Optimized conditions (CBJ Waste Characterization Study) = 59%
4. Existing facilities for barge loading are adequate for transport
5. Financial viability impacted by many factors outside the scope of this study (construction schedule, number of bidders, ownership model, etc.)

Overview of Scenarios



Transfer Processing Facility Capital Costs

Name	Estimate Stage	Estimate Year	Facility Size (SF)	Adjusted Cost per SF*
Central Transfer and Recycling Station, WA	Class 3 planning estimate	2023	63,000	$800
North Area Recovery Station, CA	Engineer's estimate	2023	51,000	$920
Municipality of Anchorage Central Transfer Station, AK	Construction estimate	2024	133,000	$1,000
Great Falls Transfer Station, MT	Class 4 planning estimate	2023	11,000	$1,040
New Transfer Station in Portland Region, OR	Order-of-magnitude estimate	2023	13,000	$1,550

**Costs adjusted to Q1 of 2025 and escalated for higher costs in Juneau*

Transfer processing facility, prepares MSW for <u>local disposal</u>:

$9 million to $20 million (2025$)

Transfer processing facility, prepares MSW for <u>offsite transport</u>:

$14 million to $40 million (2025$)

Landfill Capital Costs

Name	Estimate Stage	Estimate Year	Landfill Footprint (Acres)	Adjusted Cost per Acre*
Anchorage Landfill Expansion, AK**	Construction bid	2020	15	$477,500
Western Placer Waste Management Authority Landfill, CA	Class 4 planning estimate	2018	253	$1,654,000
Kodiak Landfill, AK**	Payment Records	2013 to 2016	10	$3,232,000

** Costs adjusted to Q1 of 2025 and escalated for higher costs in Juneau*
***Expansion of existing landfill*

Additional Notes:

1. *Capital estimates vary based on landfill geometry and design parameters. Conservative estimates were used in calculations.*
2. *Landfill capital costs would be applied in phases, while capital costs for other facilities are upfront.*
3. *Costs to construct landfill cells only; operating and maintenance facilities not included.*

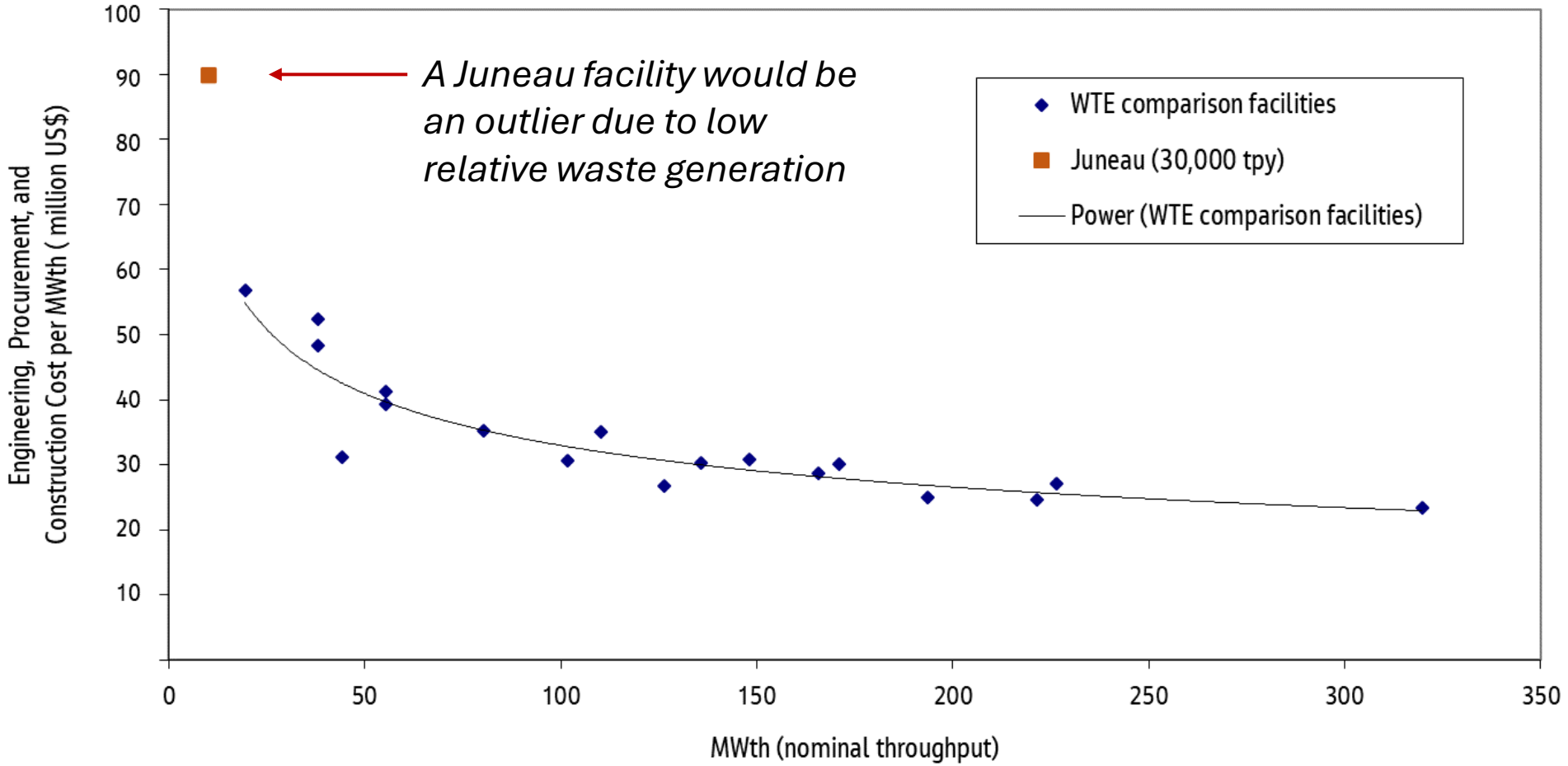
50-year landfill, 50- to 100-acre total site area:

$50 million to $162 million (2025$)

100-year landfill, 100- to 200-acre total site area:

$99 million to $323 million (2025$)

Waste-to-Energy Capital Costs



Preliminary Scenario Rankings

SCENARIO	FEASIBILITY RANKING	CAPITAL COST RANGE[a]	PROS	CONS
B. Construct a transfer processing facility with waste and recyclables **sent south by barge** for recycling and disposal.	1	**Total = $14 million – $40 million** *offsite shipping costs negotiated in transportation contract*	•No capital costs to construct a new solid waste management facility. •Minimal regulatory requirements without a landfill or WTE facility.	•Offsite transportation costs, impacts, and availability of markets to accept material are outside of CBJ control; exposure to financial risks. •Operating costs are transferred into higher fees from the hauler and operator.
A. Construct a new landfill and transfer processing facility with recyclables sent south by barge for diversion.	2	**Total = $59 million – $182 million**	•High level of control over operating costs, rates, and solid waste flow.	•Construction of a new landfill is expensive. •Siting and permitting likely to take an extensive amount of time. •Operating costs would be sustained by the CBJ unless the CBJ enters into an operating agreement with a private company. •Leachate treatment and stormwater management could be a significant cost factor.
C. Construct a WTE facility and transfer processing facility for MSW with noncombustibles, recyclables, and ash sent south by barge for disposal.	3	**Total = $99 million – $110 million**	•High level of control over operating costs, rates, and solid waste flow. •Minimizes solid waste volume and land use impacts.	•Diversion would likely be minimized to optimize efficiency of energy recovery. •No potential for revenue from net metering. •Does not improve the renewable energy profile for the CBJ. •WTE requires a high level of expertise and is more expensive to construct and operate than the other scenarios.

[a] Capital costs are not applied over the same time period across all scenarios. For example, the landfill capital would be applied over a 50-year period, while the transfer station and WTE may require significant replacement capital over the same 50-year period. Assessment of these factors would be completed with a more comprehensive economic analysis.

Recommended Next Steps

1. Decide whether CBJ wants to have control in the solid waste management system by owning a solid waste disposal facility.
2. If control is desired, proceed to develop a transfer processing facility that can be used regardless of the scenario selected with design considerations for future expansion
3. Engage with shipping partners and evaluate the capacity of the current shipping facility and the waste hauler's needs for the transfer station.
4. Perform a high-level operating cost estimation for Scenarios A & B (building a new landfill or expanding the transfer station to accommodate shipping waste south for disposal).

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Thank you!

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WHAT DOES CBJ WANT?

ACTION REQUESTED::

Staff recommend the use of up to $100,000 from the Zero Waste CIP #D12-103 for a high-level solid waste facility operational cost study?

GUIDANCE REQUESTED::

Does the Assembly want EPW to include a transfer station in the Zero Waste Campus site planning process?

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