Jefferson County's Solid Waste Facility Replacement Project

March 10, 2023

Facility Current State, Stakeholder Needs, and Related Level of Service

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BLRB architects

definitely Mabie CONSULTING Definitely-Mabie.com

JEFFERSON COUNTY WASHINGTON


Teamwork gives you the
best opportunity to turn
vision into reality.
John C. Maxwell
quotefancy

WELCOME

WELCOME, INTRODUCTIONS AND EXPECTATIONS

WORKSHOP GOALS AND OVERVIEW OF PROJECT STATUS

WORKSHOP GOALS

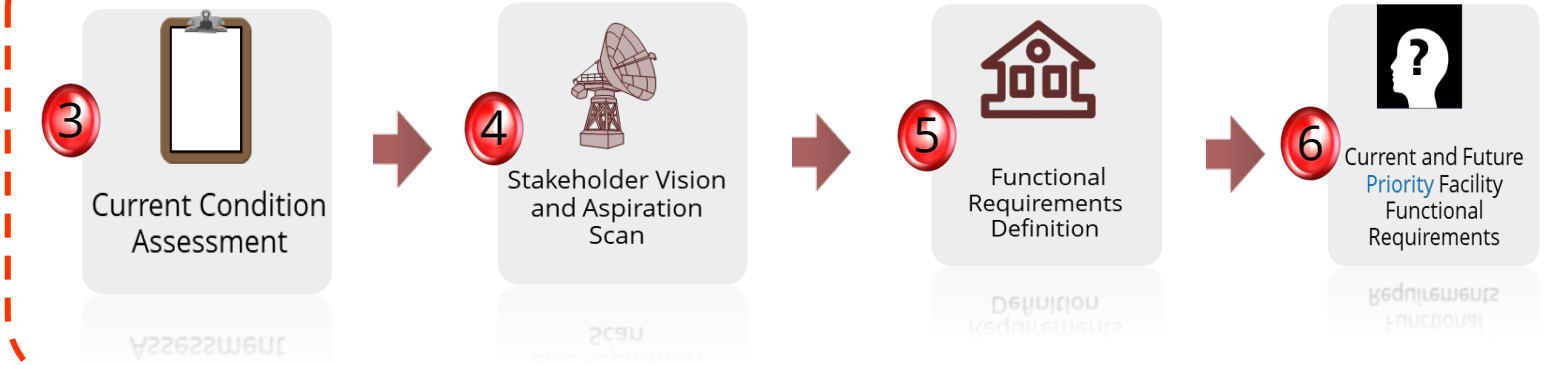
At the end of this engagement, we should have achieved the following outcomes:

1. Adopted the Integrated Team Charter
2. Adopted the Project Work Plan
3. Shared Understanding of Existing Solid Waste Facility Physical and Functional Condition, and Issues and Opportunities
4. Shared Understanding of Stakeholder Vision and Aspirations
5. Shared Understanding of Stakeholder Solid Waste Facility Functional Requirements to Address the Vision and Aspirations
6. Shared Understanding of Solid Waste Priority Functional Requirements

OUR PROJECT ROADMAP

WHERE AND NOW → **HOW** → **WHAT**

- Project Vision and Goals
- Current State and Facility Levels of Service Assessment — *WE ARE HERE*
- Facility Improvement Alternatives Evaluation
- Preferred Facility Financing Evaluation
- Preferred Facility Recommendation



WHY CURRENT STATE ASSESSMENT?

Before investing in the existing facility, the County wishes to reassess its needs and the suitability of the existing facility as well as better understand its long-term needs

PUBLIC COMMENTS, AND ADOPTION OF INTEGRATED TEAM CHARTER AND PROJECT WORK PLAN

SESSION #1 PURPOSE AND DESIRED OUTCOMES

The purpose of this session is to [1] share the updated integrated team charter and project work plan, and [2] adopt the charter and work plan.

By the end of the session , we should all …

- Have an agreed upon adoption of the team charter and work plan.

WORKSHOP

SOLID WASTE FACILITY CURRENT CONDITION ASSESSMENT

SESSION #2 PURPOSE AND DESIRED OUTCOMES

- The purpose of this session is to [1] share the results of a high - level assessment of the physical and functional condition of the recycling and transfer facility at Port Townsend, and [2] receive SWFTF's perspectives.

By the end of the session , we should all …

- Have a shared understanding of the condition of the facility and potential necessary improvement area.

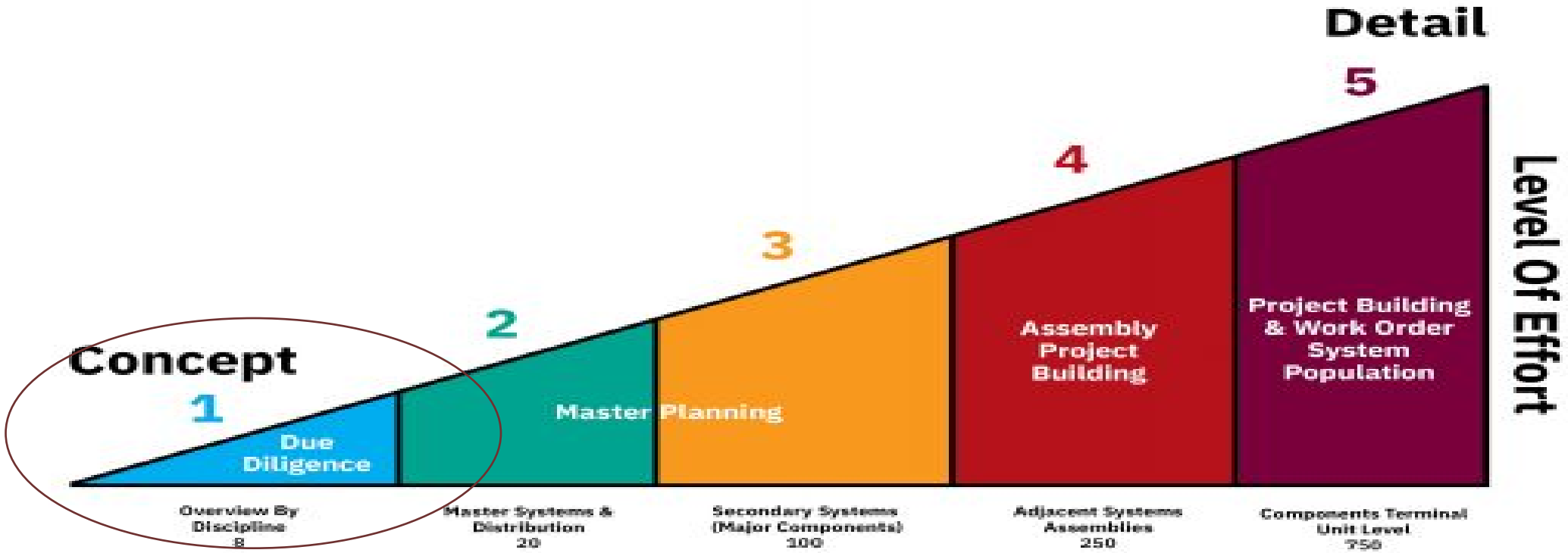
KEY ISSUES RAISED BY STAKEHOLDERS

- Traffic Congestion
- Facility Size and Expandability
- Air Quality
- ADA Accessibility
- Facility Location
- Cost Consideration

LEVEL OF DETAIL DETERMINATION

UniFormat® Level One Assessment: – used to understand assets at a high level for due diligence and to quickly determine the current condition and understand the big picture condition, needs and liabilities of a facility…

[Reference : APPA https://www.appa.org/defining-facility-condition-assessment-level-of-detail/ 2022



RATING SCALE

1 CRITICAL [*UNFIT FOR PURPOSE*]	2 INADEQUATE *[AT RISK]*	3 FAIR *[ADEQUATE FOR NOW]*	4 GOOD *[FIT FOR THE FUTURE]*	5 EXCEPTIONAL *[FIT FOR EXPANSION]*
Physical asset is in unacceptable condition and/or performing function at significantly below required service level	Physical asset is in fair to poor condition, and mostly near their service life and/or performing function below required service level	Physical asset is in fair to good condition, and/or performing function at current required service level	Physical asset is in good to excellent condition ,and/or performing function at current and future required service level (≥ 20 years)	Physical asset is generally excellent condition and/or functional performance has potential for expansion and sharing with other departments

CAPACITY - *EMERGENCY STORAGE, BUFFER, AND EXPANDABILITY*

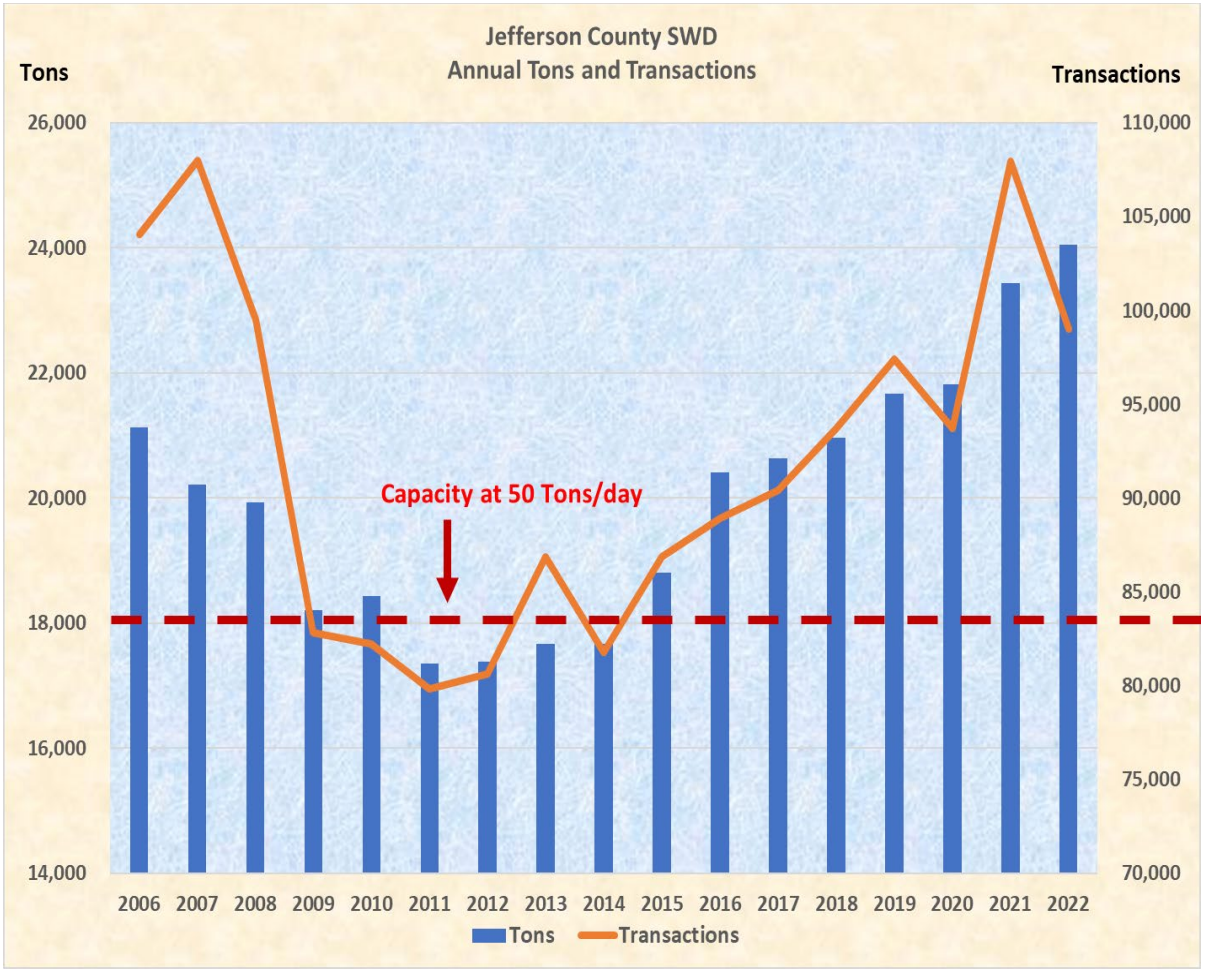
LEVEL 2 *[**]*

- Emergency storage capacity limited by non- recycling and transfer site uses.
- Buffer space is not adequate on all sides.
- Expandability is limited to less than 15 acres of the property.

[**] **Updated from level 4 to 2**

CAPACITY – *TONNAGE AND VEHICLE CAPACITY*

LEVEL 2



- Design capacity is 50 tons per day.
- Facility has exceeded its design capacity 12 out of the last 17 years.
- Increase in tonnage between 2011 and 2021 is about 35% or 3% annually.

SITE ACCESS – *LOCAL ACCESS, SEPARATE TRAILER/PUBLIC ENTRANCES*

LEVEL 2

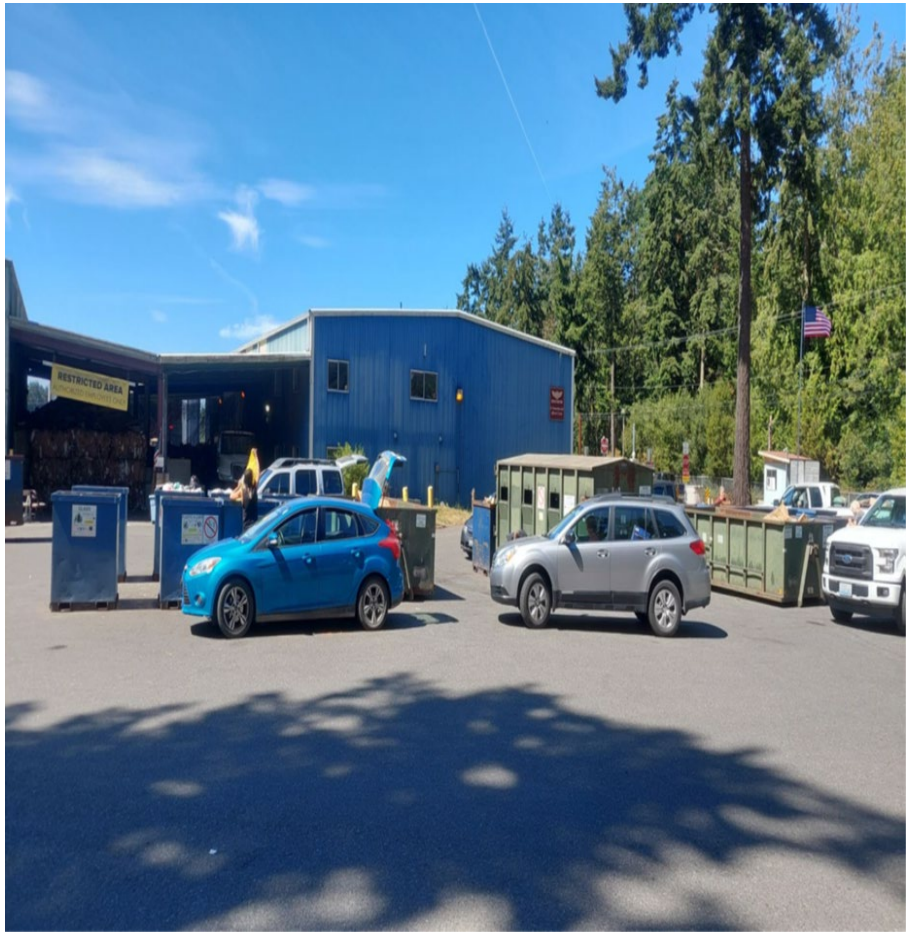
- Difficult intersections along Jacob Miller Road
- No bypass lanes for trailers or recycling-only customers.
- Access to right turn from tipping area to scale is very tight for vehicles with trailers.

SCALES AND SCALE HOUSE – *ADEQUACY AND ADA COMPLIANCE*

LEVEL 2

- Platform vehicle scale length appears suboptimal at about 25 ft length for self-haul vehicles and trailers.
- Scale house is very small, 150 SF
- Physical security for attendant is inadequate; No Americans with Disabilities (ADA) - compliant accessible features in restroom or parking stalls.

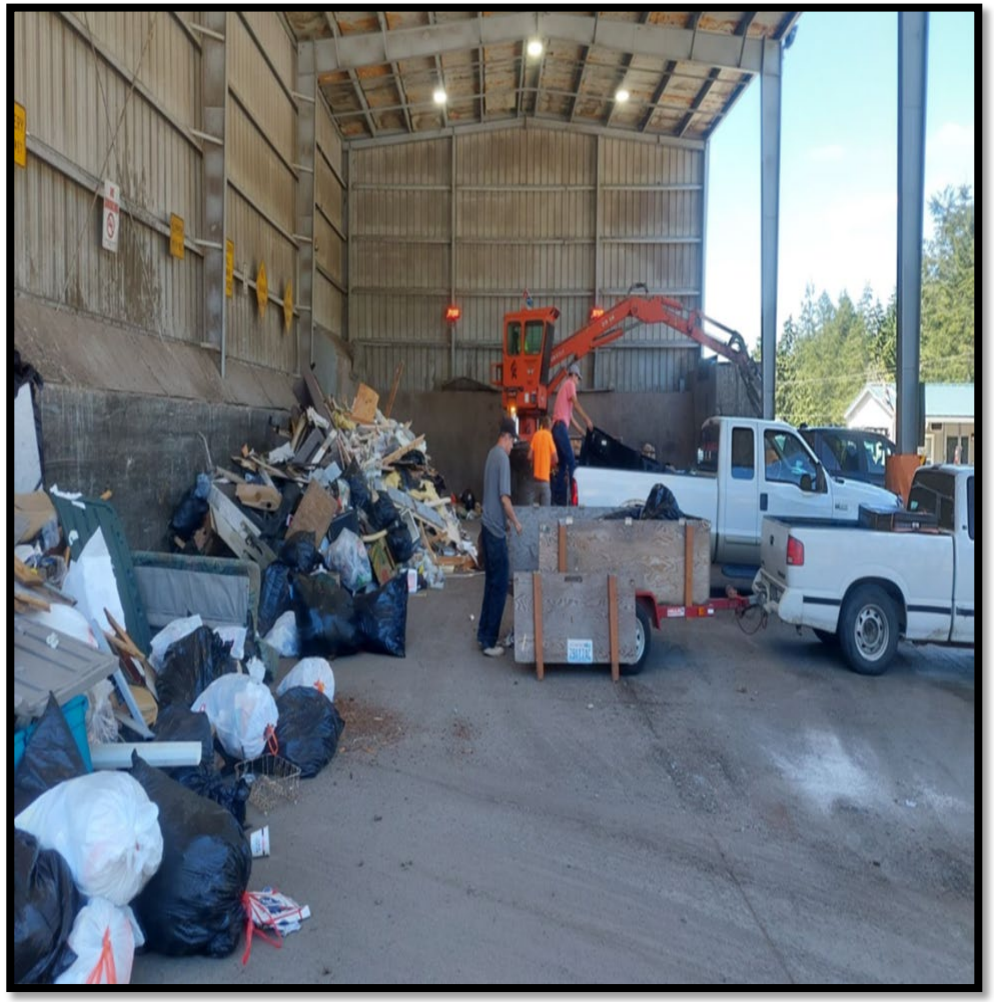
CAPACITY - RECYCLABLE COLLECTION & PROCESSING AREAS



LEVEL 2

- No ADA access to bins; Inadequate mixed traffic of self-haulers to bins and commercial vehicles to recycling processing buildings.
- Undersized collection and processing building versus collection frequency.
- Uncovered debris and litter spreading around the area.

TRANSFER BUILDING AND OPERATIONS



LEVEL 3

- Tipping floor capacity relative to vehicular demand is suboptimal.
- No backup tipping capacity when operating equipment is in repair.
- Knuckle boom crane tamping equipment is suboptimal for effective compaction

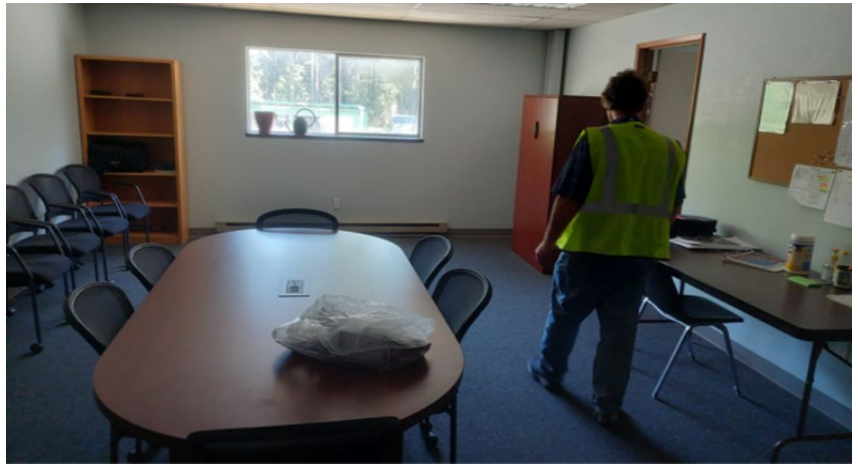
WASTE LOADING OPERATIONS

LEVEL 3

- Axle (tunnel) scales were recently replaced for monitoring payload.
- Adequate full and empty trailer parking area.
- Cycle time from floor clearing, tamping and trailer-parking is about 20 minutes.

EMPLOYEE FACILITIES

LEVEL 3



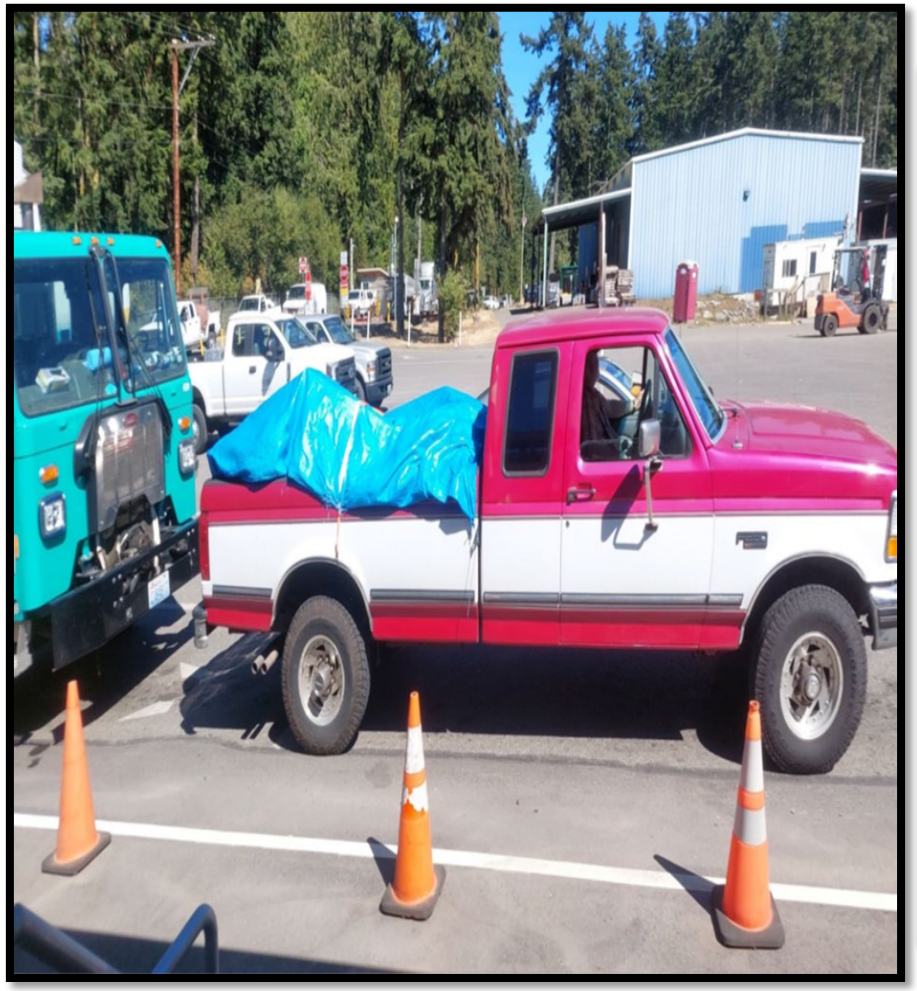
- Administrative office is a pre-manufactured last modified in 2020.
- Recycling building is a pre-engineered metal structure built in 1983 and *close to end of life.*
- Dedicated recyclable processing buildings with dedicated lunch/meeting rooms and rest rooms

PUBLIC FACILITIES

LEVEL 2

- Visitors parking area not paved; with non-ADA compliant access to administrative building area.
- No standard public telephone or restrooms.
- No public education and information area(s).

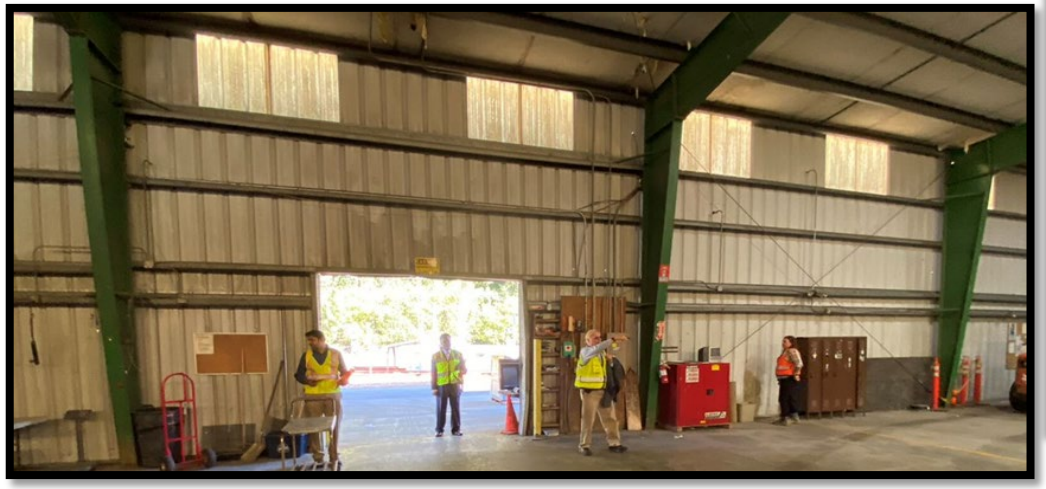
QUEUING AND TRAFFIC CIRCULATION



LEVEL 2

- Customers can enter and exit recycling area freely.
- Customers standing outside their vehicles and unloading have accident risk exposure
- Queuing at tipping floor is suboptimal

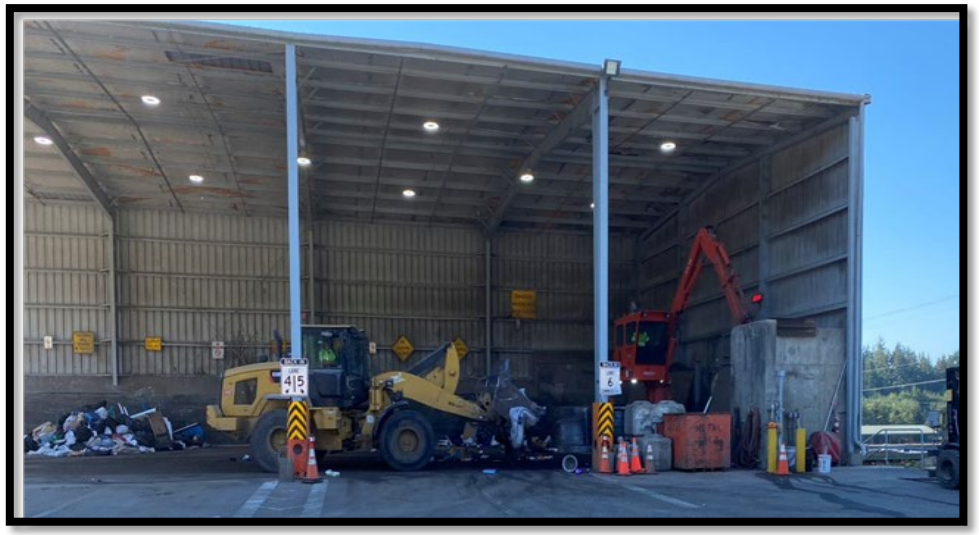
TRANSFER AND RECYCLING BUILDING STRUCTURE



LEVEL 3

- Transfer building is in fair condition externally; it is crowded in the interior; Administrative building is in good condition
- Tipping building clear height to bottom of roof structure is suboptimal; Scale house building is in fair condition
- Recycling building is in inadequate condition and requires detailed structural and electrical system assessment.

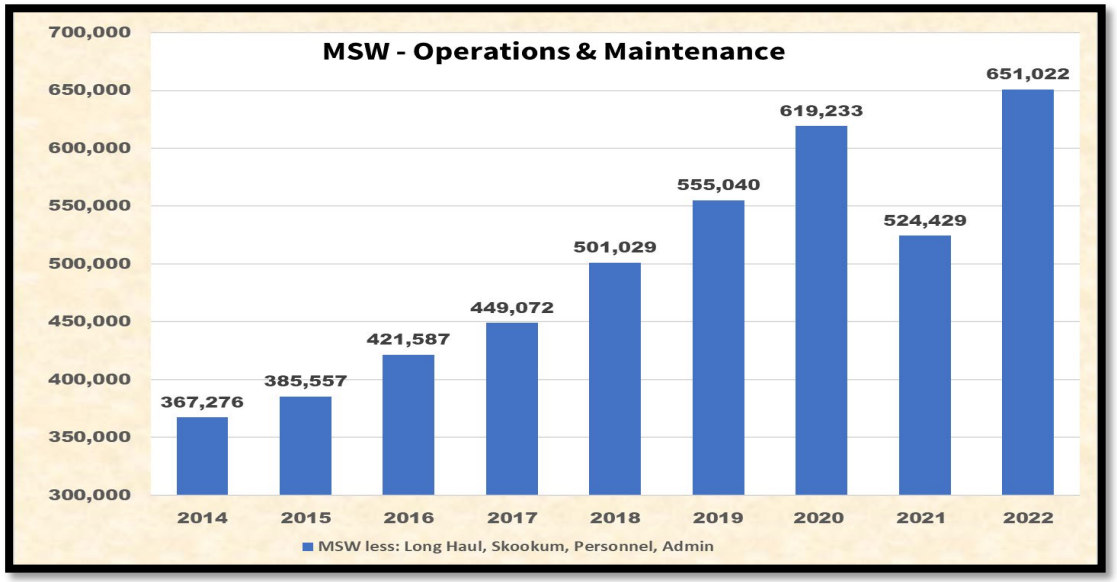
OPERATING EQUIPMENT

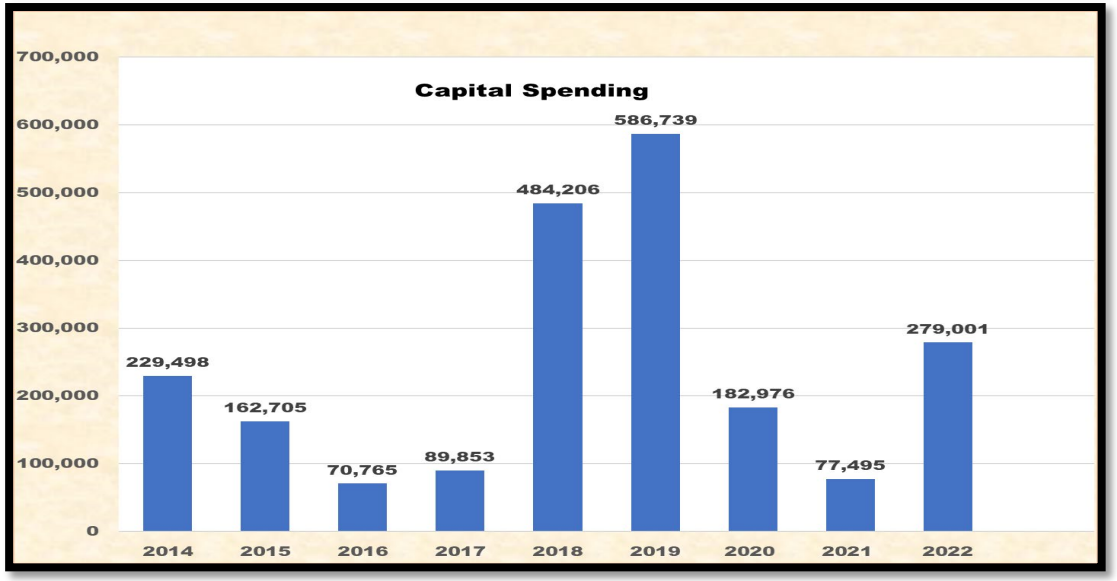


LEVEL 3

- Key operating equipment - Knuckle boom crane, tractors, recyclable processing, pit scale, drop boxes, and platform scale are in fair to good condition.

FACILITY MANAGEMENT COST





LEVEL 3

- Total Operations and maintenance costs increased by 44%* from 2014 ($367,276) to $651,022 in 2022
- Total Capital Spending was variable and dependent of major asset renewal spending
- Comparison of Total Operations & Maintenance and Facility Replacement cost suggest that the SWF is in *overall fair condition*

VIKEK Environmental Engineers, LLC

Jefferson County Washington

STATUTORY COMPLIANCE RISK

LEVEL 3

- *Safety risks* - Customers standing at tipping floor to dispose waste; operator and customer vehicles not separated; recycling and stored goods are near roof trusses.
- *Electrical* - Age of buildings suggests electrical systems near end of life.
- *Noise* - Open sided transfer building allows noise to exit building.

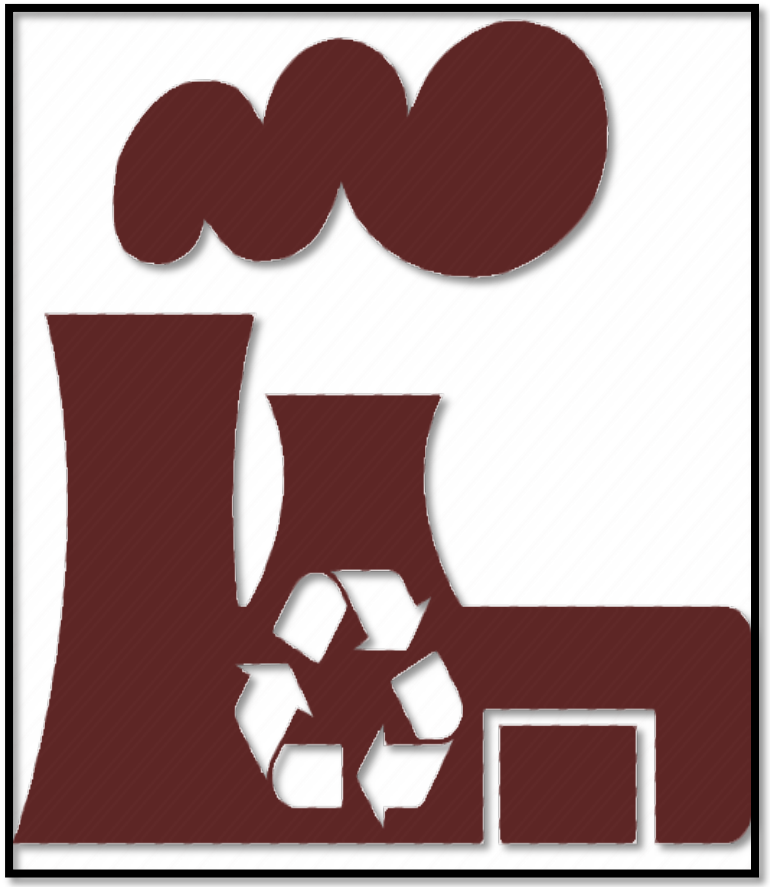
FACILITY SOCIAL SIGNIFICANCE

LEVEL 4

- The facility has significant influence on the community behavior as it relates to sustainable waste management and environmental stewardship; it is the main solid waste management facility in the county.

IMPACT OF THE FACILITY ON THE ENVIRONMENT

LEVEL 3



- Low potential of greenhouse emissions or groundwater pollution from the closed landfill
- Potentially inefficient energy consumption due to age of some buildings and equipment and possible impact on carbon foot-print
- Waste transfer and recycling operations do not appear to produce significant emissions

TASK FORCE QUESTIONS AND DIALOGUE

WORKSHOP

STAKEHOLDERS SOLID WASTE FACILITY VISION AND ASPIRATIONS AND FUNCTIONAL REQUIREMENTS

SESSION #3 PURPOSE AND DESIRED OUTCOMES

- The purpose of this session is to [1] share the results of the stakeholder needs assessment, and [2] agree on the priorities.

By the end of the session , we should all …

- Have a general understanding of Solid Waste Transfer "Must Haves" and Stakeholder "Wants"

SOLID WASTE TRANSFER

Transfer Operation

Central location to collect waste from customers, consolidate, and transport to next destination

Metrics used in Solid Waste Definitions and Descriptions

Waste

Municipal waste and Recycling is measured using the following methods:

- Weight, in tons measured with scales
- Volume, cubic yards
- Container, by each

Time

- Customer time: Scale queue time inbound > wait time for tipping access > tipping time > scale queue time outbound > payment transaction measured in minutes.
- Operations: Time to complete loading waste for transfer in a container and then replace the container with a new one.

Customer Surveys identify self-haul customers desired reasonable wait time.
Commercial haulers, less time = greater efficiency for haulers could mean increased operations needed for County.

Physical Site Attributes, a few items

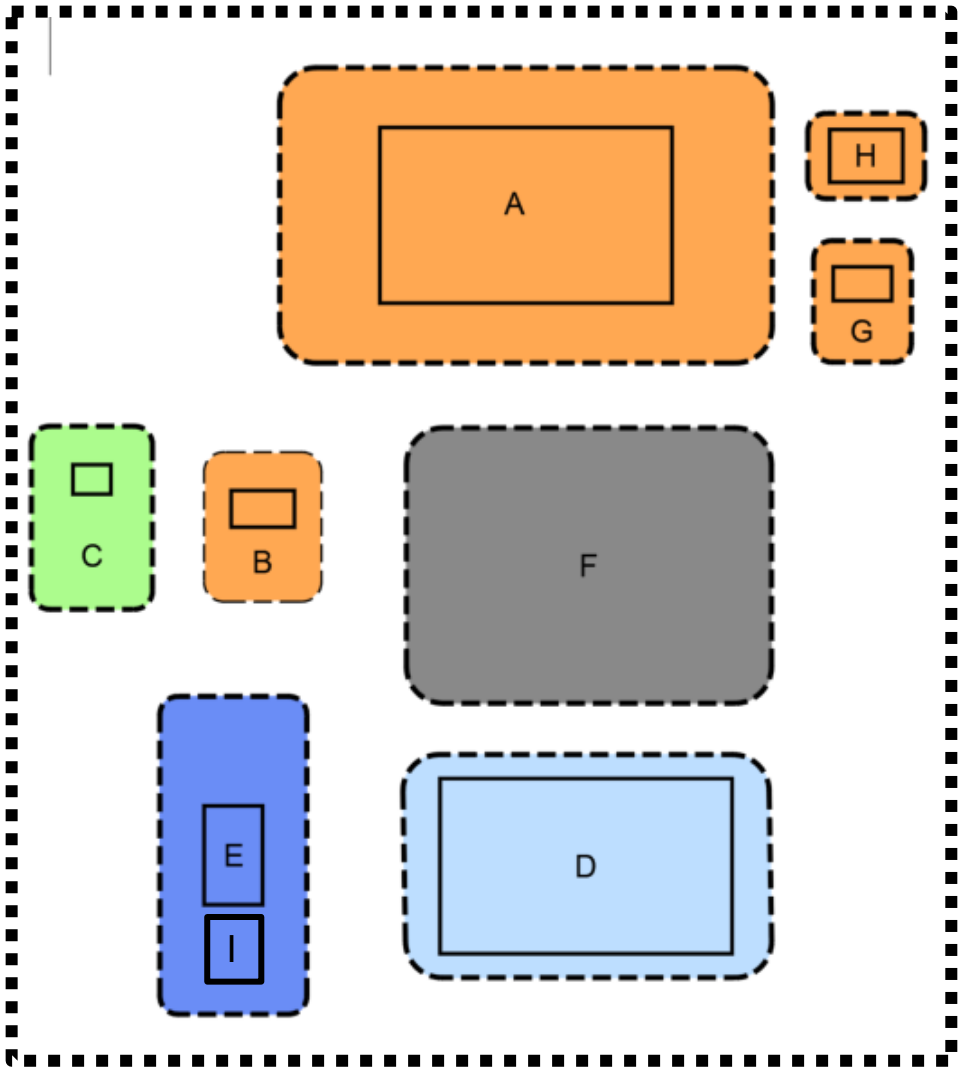
- Queuing Length: Number of cars, using linear feet of queue length
- Tipping Stalls: Number of stalls available for customers to access waste disposal and recycling points
- Storage, Waste: Full or empty containers ready to be filled prior located on-site
- Storage, Emergency or Stockpile: Measure in acres or volume using material piles

SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS "MUST HAVES"

Site impact

- **Today: Identify operational needs**
- Next step: Identify net acreage needed

	Building or Area
A	Transfer Building
B	Administration
C	Attendant Building
D	Recycling, Commercial
E	Recycling, Residential
F	Unenclosed program
G	Maintenance
H	Fires Suppression
I	Limited Household Waste



SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS

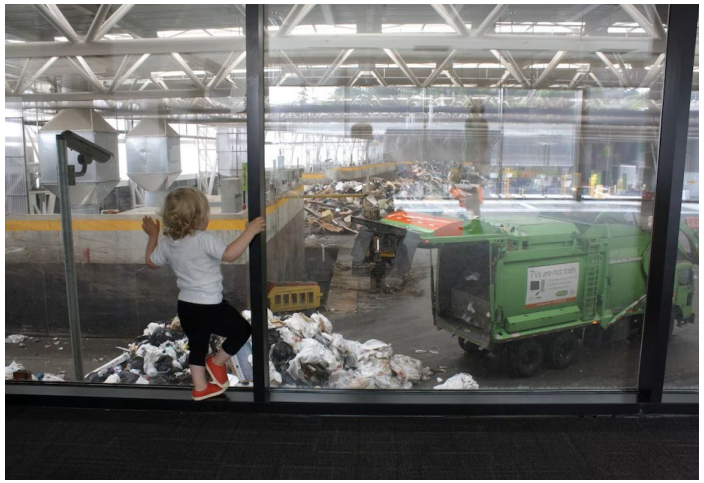
A	Transfer Building
High	Priority
•••	Cost magnitude
2.0<	Site impact (acres)

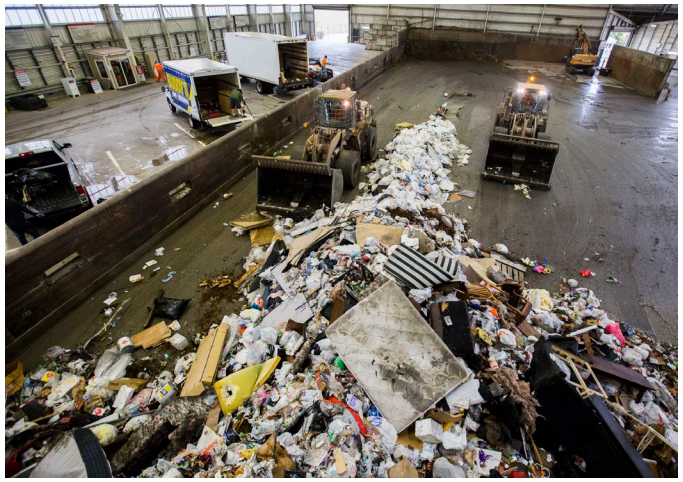
Operation

- Central location to collect waste from customers, consolidate, and transport away
- Goal: maximize tonnage per vehicle trip to minimize fuel and transit time

Important:

- Safety
- Efficiency
- Durability
- Waste Diversion
- Capacity Initial vs Future
- Emergency Capacity





Transfers waste from customer drop-off to long-haul vehicle

SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS

B	Administration
High	Priority
•••	Cost magnitude
.25	Site impact (acres)

Operation

- Office, break, lockers & parking for operators
- Could combine with other service elements

Important:

- Central site location, visibility to/from
- Sustainable and maintainable
- Separate interior functions from refuse odor

Central access by Operations Staff, break, management, and locker spaces

SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS

C	Attendant Building
High	Priority
•••	Cost magnitude
.25<	Site impact (acres)

Operation

- Warm room for fee collection operators, break and restroom
- Adjacent to scales
- Primary point of entry for fee-based collection

Important:

- Clear sight lines to customers
- Operator and customer safety
- Scales sized for future and current vehicles for flexibility, long haul vehicles

First service interaction for transfer customers, vehicle weight, and fee collection

SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS

D	Recycling, Commercial
High	Priority
••	Cost magnitude
1<	Site impact (acres)

Operation

- Collection point for commercial recycling operation

E	Recycling, Residential
High	Priority
••	Cost magnitude
.5<	Site impact (acres)

Operation

- Collection point for residential self-haul customers, small volumes per-customer

I	Limited HHW
Mod	Priority
••	Cost magnitude
.5<	Site impact (acres)

Operation

- Collects household paints, cleaning supplies, batteries, etc.

Important:

- Adaptability for future regulations
- Public universal access
- Customer & operator safety
- Prevent litter
- Secure storage for high-theft commodities and HHW items

SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS

Recycling, Commercial

Recycling, Residential

LHHW

SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS

F	Unenclosed Program
High	Priority
•	Cost magnitude
TBD	Site impact (acres)

Operation

- Empty and full container storage
- Maneuvering for vehicles
- Woody debris laydown, temporary

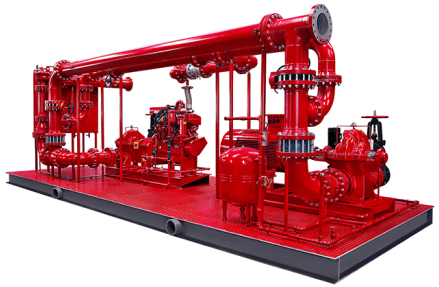
Important:

- Large open area, graded nearly flat
- Consider future expansion
- Stormwater & Leachate collection needed
- Lighting for operations

SOLID WASTE FACILITY FUNCTIONAL REQUIREMENTS

G	Maintenance
Low	Priority
••	Cost magnitude
.2	Site impact (acres)

H	Fire Suppression
High	Priority
••	Cost magnitude
.15	Site impact (acres)



Operation

- Small garage area for repairing equipment and containers
- Stores small site equipment vehicles

Important:

- Garage door access
- Workbench

Operation

- Structures housing fire suppression system for site

Important:

- Rural site assumes need for pump and storage tank
- Access by fire department needed
- Water supply needed, a well is likely

STAKEHOLDER ASPIRATIONS

THE MAIN THINGS WE HEARD

1. Expanded/Additional Recycling Services
2. Shared space for colocation with other community-run services
3. Community/Public Facilities Area
4. Others?

The solid waste service “Wants” fall into these main categories

"WANTS" COLLECTED FROM SWFTF

1. Construction debris drop & recycle
2. Asphalt shingle recycling
3. Agricultural plastics recycle
4. Commercial-scale composting
5. Organics/food scraps recycling
6. Specialty materials recycling e.g., Styrofoam

7. Repair café
8. Drop and take spot
9. Edible food diversion space
10. Volunteers space
11. Classroom
12. Community meeting/use space
13. Artist in residence
14. Viewing area
15. Artists' exhibit space
16. Viewing area of working floor
17. Showcase workers

18. Asbestos facility
19. Limited household hazardous waste
20. Disaster debris

Z	Repair Cafe
•••	Cost magnitude

Operation

- Self-repair, small electronics & household items
- Repair classes
- Tool Library & checkout
- Weekly/Monthly events
- Public restrooms and access

Similar Programs:

- Repair Café Foundation, www.repaircafe.org
- King-County Repair Events
- Portland, Repairpdx.pr.co

"Repair Cafés are free meeting places and they're all about repairing things (together).

In the place where a Repair Café is located, you'll find tools and materials to help you make any repairs you need.

On clothes, furniture, electrical appliances, bicycles, crockery, appliances, toys, et cetera. You'll also find expert volunteers, with repair skills in all kinds of fields." - ***Repair Café Foundation***

SWFTF NEEDS ASSESSMENT – SUMMARY OF WANTS

Y	Organics Food Scraps
••	Cost magnitude

Operation

- Source separated food scraps for composting
- Collection bins
- Decomposition bins, Aerated, etc.
- Customer pick-up of compost for gardens

Similar Programs:

- Goodstartpackaging.com
- US EPA Sustainable Management of Food
- Entrepreneurs, www.carterscompost.com
- www.compostingnetwork.com
- Article: Entrepreneurs See Opportunity In Food Scraps Collection | BioCycle, March 28, 2014

X	Drop and Take
••	Cost magnitude

Operation

- Weather protected collection of drop and pick-up repurpose items
- Storage bins or cages
- Salvaged materials for customer re-purpose or re-use
- Space provided by the County, operated by other organizations

Similar Programs:

- Habitat for Humanity ReStore
- Second Use Building Materials
- Waste Not, Want Not

Salvaged building materials can also be sourced from the excess construction material of building sites to reuse in other projects. For builders or DIYers, incorporating these reclaimed construction materials into projects is better for the planet and more financially responsible—since building out of all new materials can be expensive.

W	Specialty Recycling
••	Cost magnitude

Operation

- Space provided by County, operated by others
- Bulky or small market recycling commodities
- Commercial and Residential drop-off
- Considers flexibility for future legislation yet to be determined

Examples

- Construction & Demolition Waste
- Asphalt Recycling
- Concrete Recycling
- Styrofoam recycling
- Asbestos
- Agricultural plastics

SWFTF NEEDS ASSESSMENT – SUMMARY OF WANTS

V	Community Space
•••	Cost magnitude

Operation

- ❑ Central community gathering space
- ❑ Artist Exhibition Space
- ❑ Classroom
- ❑ Educational view of operations
- ❑ Community Emergency Hub

TASK FORCE QUESTIONS AND DIALOGUE

SESSION #4 PURPOSE AND DESIRED OUTCOMES

The purpose of this session is to [1] share the functional requirements of the Solid Waste Facility that will address the needs identified by the stakeholders, and [2] agree on the functional priorities.

By the end of the session , we should all …

Have an agreed on the priority functional requirements for a solid waste facility .

DISCUSSION OF SWFTF "WANTS"

- Share your thoughts about the "wants"
- Could any of the site wants be used as facility alternatives criteria and removed as options?
- What would you consider as you determine which of these "wants" to prioritize?

PRIORITIZING "WANTS"

Poll Question 1: Which of the "wants" are **most immediate**?

1. Construction debris drop & recycle
2. Asphalt shingle recycling
3. Agricultural plastics recycle
4. Commercial-scale composting
5. Organics/food scraps recycling
6. Specialty materials recycling e.g., Styrofoam
7. Repair café
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18. Asbestos facility
19. Limited household hazardous waste
20. Disaster debris

PRIORITIZING "WANTS"

FUTURE

Poll Question 2: What are the most important "wants" to be able to accommodate **in the future**? In other words, build in flexibility to include them at a later time?

1. Construction debris drop & recycle
2. Asphalt shingle recycling
3. Agricultural plastics recycle
4. Commercial-scale composting
5. Organics/food scraps recycling
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18. Asbestos facility
19. Limited household hazardous waste
20. Disaster debris

PRIORITIZING "WANTS"

Poll Question 3: What is **most important** to include in the revised or new station *in addition to* the "must haves"? **Select your top 3.**

1. Construction debris drop & recycle
2. Asphalt shingle recycling
3. Agricultural plastics recycle
4. Commercial-scale composting
5. Organics/food scraps recycling
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NEXT STEPS

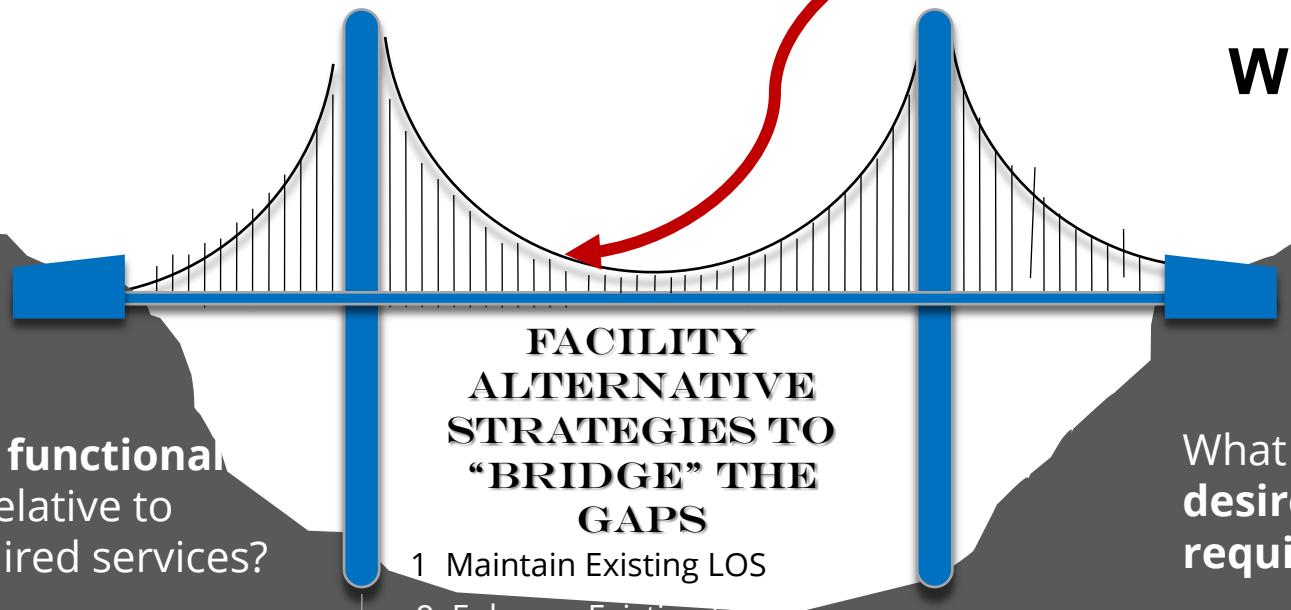
- Compile results of SWFTF “wants” discussion
- Develop survey for broad community to weigh in on:
  - Transfer station values, concerns, and aspirations
  - Report on your “wants” discussion outcome and ask for community response
- SWFTF input and community survey results, along with technical work, used to inform next steps in alternatives development process

TASK FORCE QUESTIONS AND DIALOGUE

WRAP-UP AND NEXT STEPS

ROADMAP FORWARD

Issue Workshop # Notes → Update Project Website → Plan SWF Improvement Alternatives Evaluation



Where we are…

CURRENT STATE

What is the **physical and functional condition** of the facility relative to capability to provide required services?

FACILITY ALTERNATIVE STRATEGIES TO "BRIDGE" THE GAPS

1. Maintain Existing LOS
2. Enhance Existing LOS
3. Non -Facility Options

How Much Capacity is needed to meet future demand?

What Kind of Facility is needed?

Where we want to be…

FUTURE STATE

What are the **mandatory and desired** solid waste facility **requirements** of the community?

THANK YOU!

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