# Metro South Station Workshop

Metro South Station Assessment Project

December 12, 2013

HDR

Metro

# Agenda

- Purpose/Objective
- Introductions and Project Background
  - Project Need
  - Outreach and work completed to date
- Present facility concepts
- BREAK
- Discuss concepts
  - Discussion/brainstorm
  - Advantages/disadvantages
- Select options for further analysis
- Next steps (Follow-up Workshop)

# Existing Facility & Operations

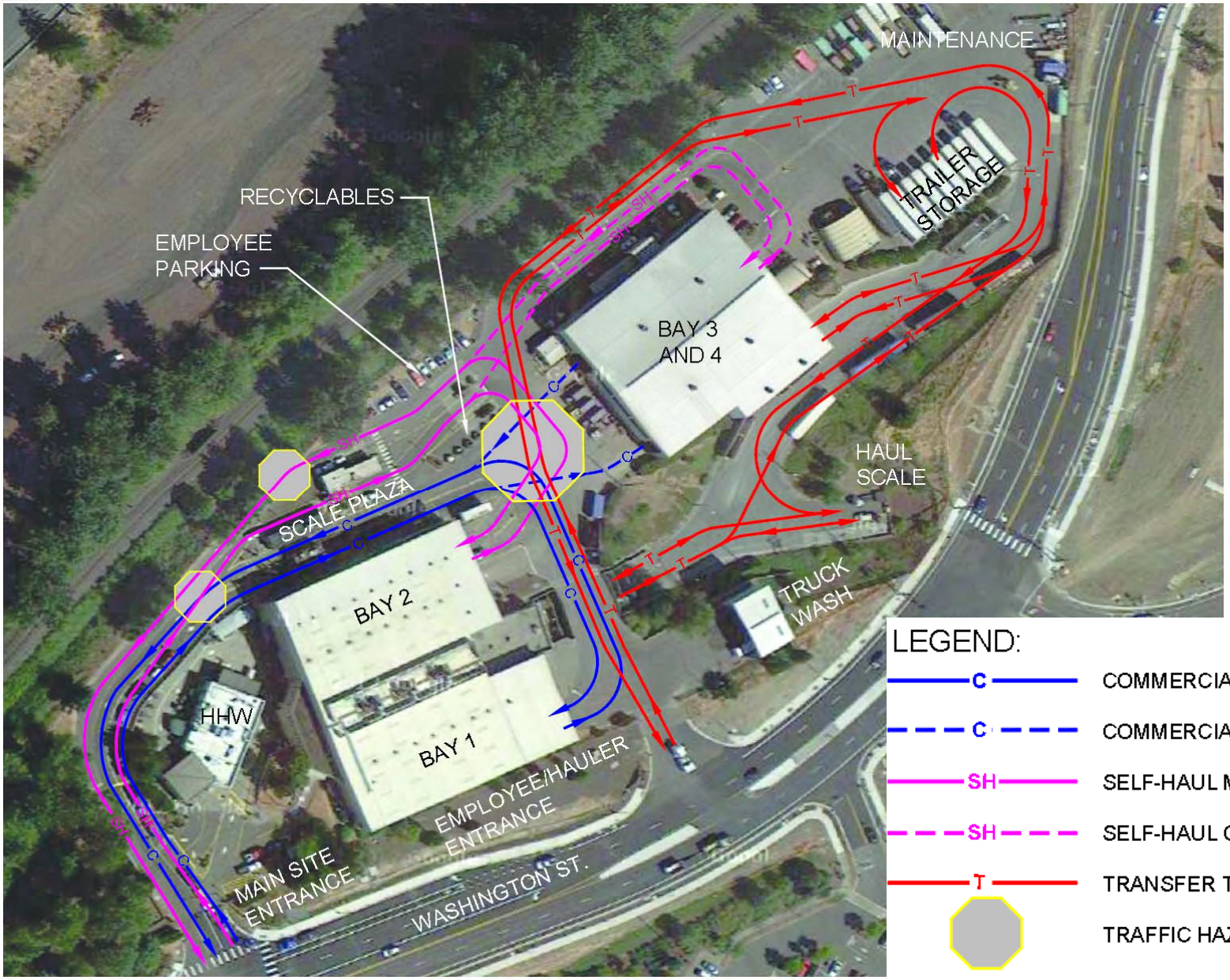
- Weigh in/out - scale plaza with four weigh scales
- MSW processing and storage
- Dry waste, yard debris, wood waste and residential organics
- Recoverables storage/sorting
- Outdoor recoverables storage
- HHW processing and storage
- Material reuse
- Recyclables drop boxes
- Trailer parking
- Haul scale
- Truck wash
- Maintenance

# Existing Site

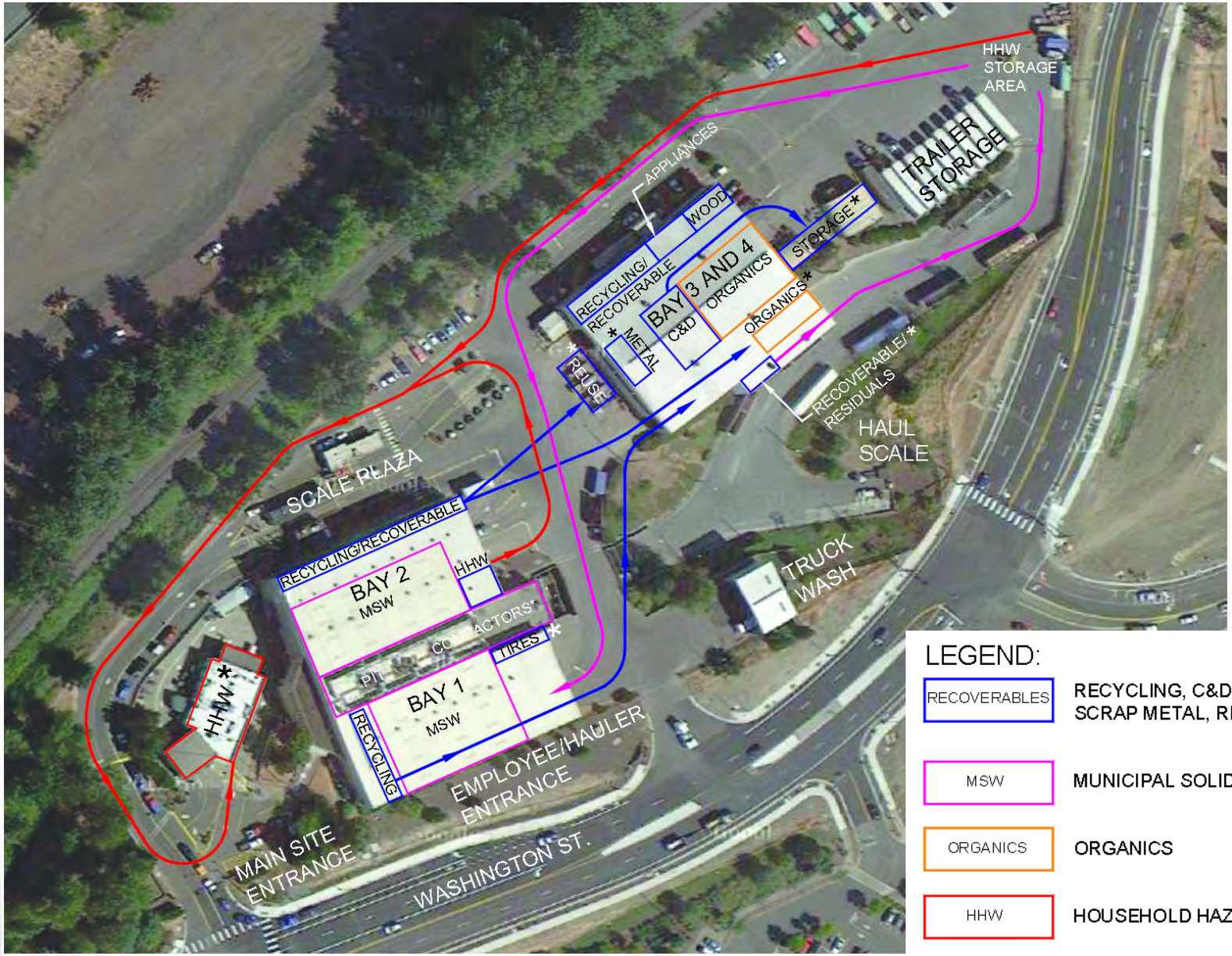
# Site Challenges

- Traffic congestion and flow
- Inefficient material handling
- Inadequate space for separation of materials

# Site Traffic



# Material Processing

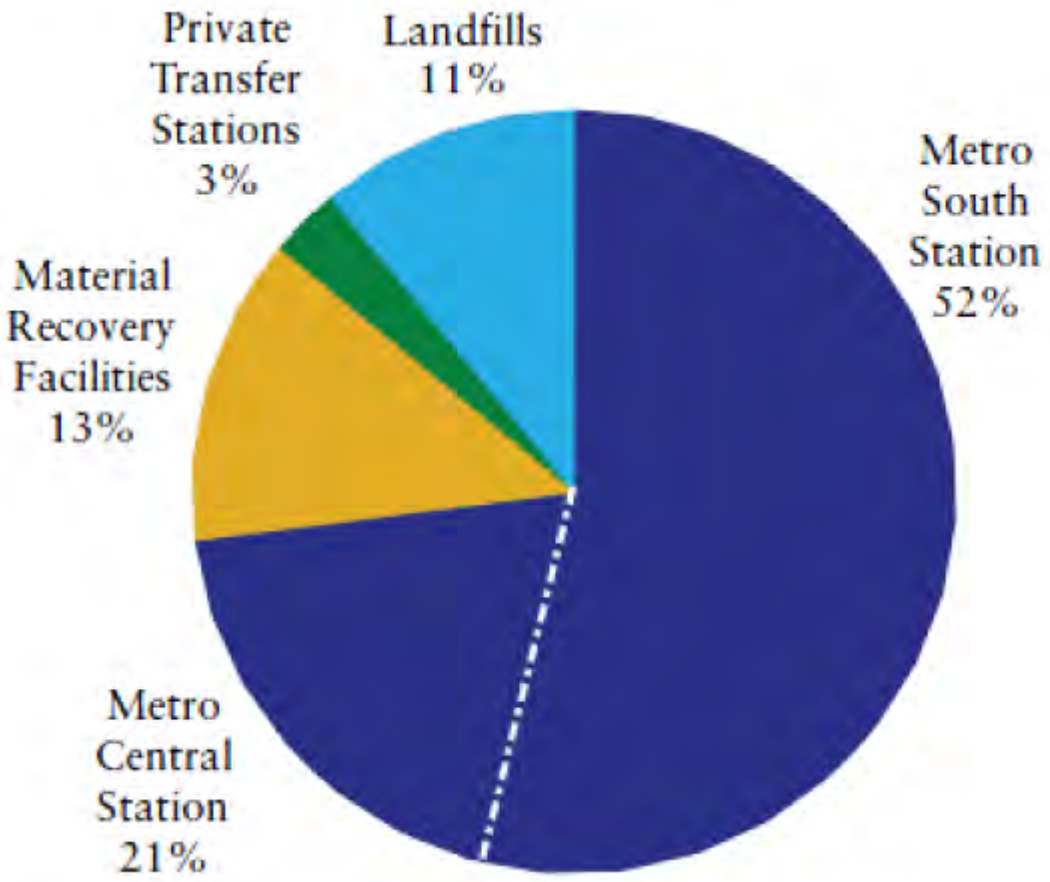



LEGEND:

| | |
|---|---|
| RECOVERABLES | RECYCLING, C&D, TIRES, APPLIANCES, SCRAP METAL, REUSE |
| MSW | MUNICIPAL SOLID WASTE |
| ORGANICS | ORGANICS |
| HHW | HOUSEHOLD HAZARDOUS WASTE |

# Project Background

**2009 Regional Public Self-Haul Load Drop-off Location**

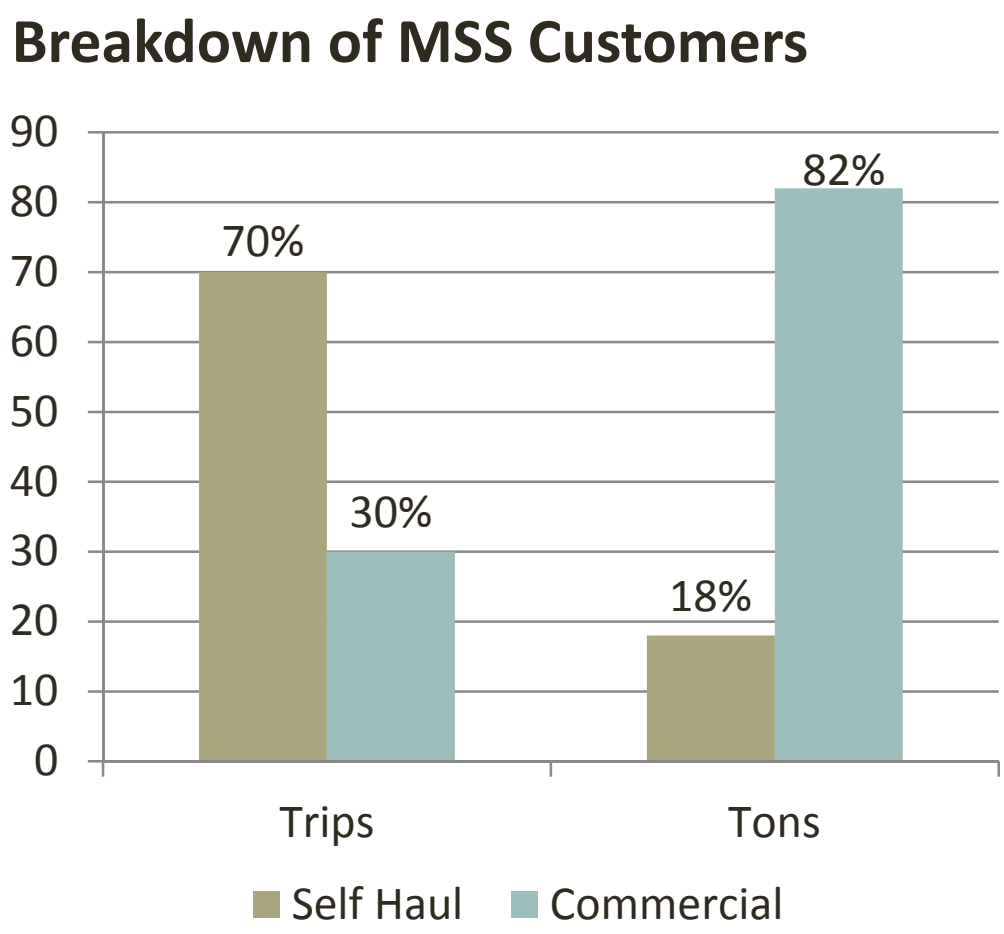



Source: *Impact of Self-Haul Customers on the Regional Solid Waste System;* Metro, January 2009.

# Customer Base

- Approx 240,000 tons per year of material received at MSS

| MSS TRIPS | Weekday | Weekend |
|---|---|---|
| Self Haul | 321 | 447 |
| Commercial | 189 | 44 |
| **TOTAL** | **511** | **491** |



# Project Background

## Stakeholder Outreach

**Outreach method to 6 primary stakeholder groups:**

| Stakeholders | Outreach Method | | | | |
|---|---|---|---|---|---|
| | Phone interviews | Individual meetings | Group meetings | On-site surveys | Email surveys |
| Commercial haulers | X | X | X | | X |
| Self-haul customers | X | | | X | X |
| Local governments | X | X | X | | X |
| Internal Metro staff | | X | X | | |
| Operations staff (Allied and Metro) | | | X | | X |
| Other (Miscellaneous) | X | | X | | X |

# Project Background

## Stakeholder Outreach

**Station Survey Results:**

- **91%** of **commercial** customers said that MSS was "more convenient location than the other transfer stations"
- **75%** of **self haul** customers said that MSS was "more convenient location than the other transfer stations"
- **81%** of **commercial** customers were "very satisfied" with visit to MSS
- **88%** of **self haul** customers were "very satisfied" with visit to MSS

**Key Messaging from Customers:**

- **Appreciate diversity of services**
- **Appreciate customer service**
- **Appreciate convenience**

# Project Background

## Stakeholder Outreach

### Metro Staff Workshop

- August 9, 2013
- 10 participants
- Electronic poll to rank facility "Needs"
- *"How should we serve the customers in the south Metro region?"*

### Stakeholder Survey

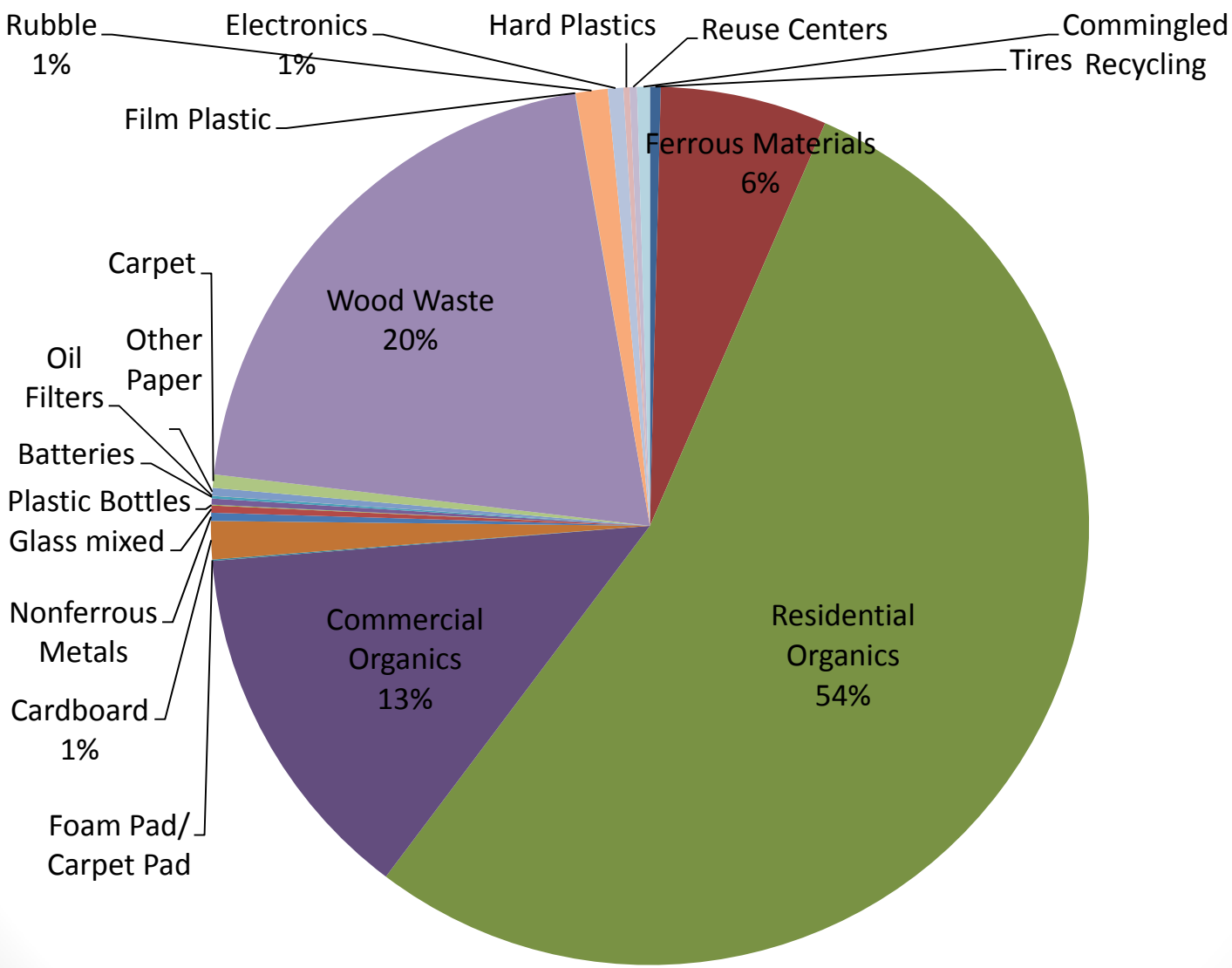
- 27 participants
- Online survey
  - Ranked needs by priority: Low – Medium - High

# Prioritized "Needs"

★ Top Ranked Needs from Stakeholder Survey

| RANK | PRIORITIZED LIST OF FACILITY NEEDS |
|---|---|
| 1 | Household Hazardous Waste ★ |
| 2 | Commercial Organics |
| 3 | Residential Organics and Yard Debris |
| 4 | Self-haul Waste |
| 5 | Space for Sorting Recyclables & Wood Waste ★ |
| 6 | Commercial Waste Deliveries ★ |
| 7 | Provide Customer Education |
| 8 | Minimize Queue Times and Provide Wayfinding |
| 9 | Source Separated Recyclables |

# 2018 Projected MSS Diverted Materials



# MSS Historical and Projected Tons

| Year | 2012 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|
| Wet Waste | 128,671 | 123,505 | 126,155 | 128,244 | 131,781 | 134,256 | 133,875 |
| Loose DB | 19,745 | 27,530 | 29,235 | 30,585 | 31,446 | 31,744 | 31,520 |
| Self Haul Customers | 56,212 | 64,274 | 68,283 | 71,405 | 73,381 | 74,091 | 73,613 |
| Residential Organics | | 34,298 | 37,888 | 39,756 | 44,265 | 49,238 | 50,688 |
| Commercial Organics | | 7,520 | 9,397 | 10,407 | 10,872 | 11,352 | 12,688 |
| Total | **204,628** | **249,492** | **259,100** | **264,702** | **273,787** | **281,269** | **281,778** |

# Space Requirements

| Rank | Need | Space Needed for Unloading, Processing and Storage | Space Available for Unloading, Processing and Storage |
|---|---|---|---|
| 1 | Household Hazardous Waste | Current HHW building with some additional storage outside building and drive | HHW building – 5,400 SF (including canopy)<br>Remote storage – approx. 1,000 SF |
| 2 | Receive Commercial Organics | 2,000 - 3,600 SF | Bay 3 – shares with the 21,500 SF with Need 6 |
| 3 | Receive Residential Organics and Yard Waste | 6,100 - 10,300 SF | Bay 3 - shares with the 21,500 SF with Need 6 |
| 4 | Receive Self Haul Waste | Need 11 stalls in Bay 2 or 10,100 SF for unloading and 4,000 SF for material storage on floor, and pit for material storage of 150 tons requires 1,400 SF of pit | Bay 2 has 10,500 SF for unloading and floor storage, only space for 7 vehicles to unload at once, so queue of 4 vehicles. Pit shares with Need 5 |
| 5 | Receive Commercial Waste Deliveries | Need 4 stalls in Bay 1<br>4,200 SF for unloading and pit for material storage of 560 tons or 5,000 SF of pit | Bay 1 has 10,800 SF for unloading. Pit has 4,800 SF or 550 tons |

**Legend:**

Processes assumed to occur in Bays #1 or #2

Processes assumed to occur in Bays #3 and #4

# Space Requirements

| Rank | Need | Space Needed for Unloading, Processing and Storage | Space Available for Unloading, Processing and Storage |
|---|---|---|---|
| 6 | Recover Recyclables, & Divertible Materials Sorting | To unload all SH vehicles in Bays 3 and 4 requires 19 stalls, or a 266 ft long building. Assume 8 stalls in Bays 3 & 4 and 40% of SH materials, rest to Bay 2. For Loose DB need 2 stalls 11,000-17,100 SF for material receipt & storage plus 6,400 SF – 7,600 SF for simple processing line requires 17,400 - 24,700 SF | Building is 175 ft long which limits unloading capacity. 27,000 SF in building, less 3,500 SF for access aisle through building and 2,000 SF for loadout ports for 21,500 SF |
| 7 | Provide Customer Education | No additional space needs | Throughout, viewing signs – no activity area |
| 8 | Minimize Queue Times & Wayfinding | No additional space needs | Added signage, provide more unloading bays for SH customers |
| 9 | Source Separated Recyclables | 1,200 SF | Inside –into bins or bunkers<br>Outside – into bins 1,200 SF |
| | **Total Space** | **53,400 SF - 66,500 SF Needed** | **48,800 SF Available, need an additional 4,600 to 17,700 SF** |

**Legend:**

Processes assumed to occur in Bays #1 or #2

Processes assumed to occur in Bays #3 and #4

# Facility Options

# Facility Approaches

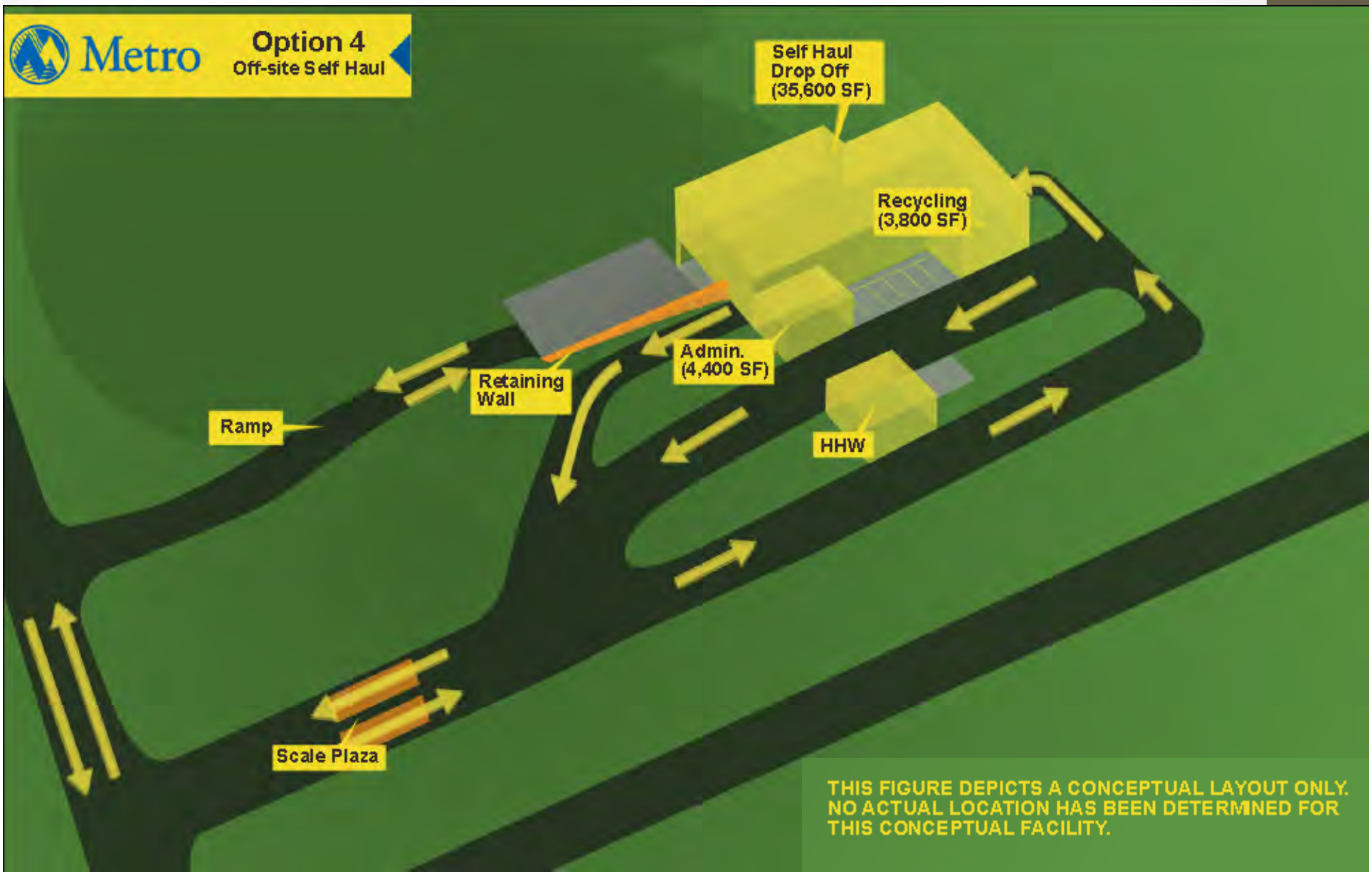
- **Operational Modifications Only**
  - No changes to facility infrastructure
- **Facility Retrofit**
  - Onsite modifications only
- **Facility Retrofit with Offsite Improvements**
  - Options include transferring some operations offsite

# OPTION 1 – Add Organics Storage

# OPTION 2 – Add Processing Line

# OPTION 3 – Full Buildout

# OPTION 4 – Offsite Self Haul



# BREAK

# Discussion

- Questions
- Comments
- Likes
- Dislikes
- Suggestions
- Confirm options to move forward

# Next Steps

- HDR to develop more detailed options based on narrowed list of concepts. Information to include:
  - Conceptual costs
  - Conceptual floor plans
  - Conceptual site plans
  - Operational and customer benefits and drawbacks

- Follow-up Workshop – TBD February 2014
  - Develop final recommended option

# Thank You!

## Questions?

## Contact:

Chuck Geyer – Oregon Metro
chuck.geyer@oregonmetro.gov
503.797.1691

Alex Cousins – HDR Engineering
alex.cousins@hdrinc.com
503.727.3920