

# Agenda



**Metro**

600 NE Grand Ave.  
Portland, OR 97232-2736

Meeting: Solid Waste Alternatives Advisory Committee (SWAAC)  
Date: Wednesday, October 12, 2016  
Time: 10 a.m. to noon  
Place: Metro, Council Chambers

*The purpose of the Solid Waste Alternatives Advisory Committee is to develop policy options that, if implemented, would serve the public interest by reducing the amount and toxicity of waste generated and disposed, or enhancing the effectiveness and sustainability of the system through which the region's solid waste is managed.*

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|-----------------|-----------|---|---|
| <b>10:00 AM</b> | <b>1.</b> | <b>CALL TO ORDER AND DECLARATION OF A QUORUM</b>  | <b>Matt Korot, Chair</b>  |
| <b>10:02 AM</b> | <b>2.</b> | <b>COMMENTS FROM THE CHAIR AND SWAAC MEMBERS</b>  |   |
| <b>10:07 AM</b> | <b>3.</b> | <b>** CONSIDERATION OF SWAAC MINUTES FOR SEPT. 14, 2016</b>   |   |
| <b>10:10 AM</b> | <b>4.</b> | <b>** SWAAC SUBCOMMITTEE ON MATERIAL RECOVERY AND CONVERSION TECHNOLOGY FACILITY REGULATORY CHANGES: <u>RECOMMENDATIONS</u></b>   | <b>Roy Brower, Metro<br/>Dan Blue, Metro<br/>Bruce Walker, Portland</b> |
|                 |           | <i><u>Purpose:</u></i><br>To present to SWAAC the recommendations resulting from the Material Recovery Facility/Conversion Technology Subcommittee  |   |
|                 |           | <i><u>Outcomes:</u></i> <ul style="list-style-type: none"><li>• Understanding of the recommendations and how they were developed</li><li>• SWAAC input on recommendations and indication of concurrence/non-concurrence</li><li>• Understanding of next steps</li></ul> |   |
| <b>10:50 AM</b> | <b>5.</b> | <b># OVERVIEW OF UPCOMING SOLID WASTE FACILITY AUTHORIZATIONS TO BE CONSIDERED BY METRO COUNCIL</b>   | <b>Roy Brower, Metro<br/>Warren Johnson, Metro</b>                      |
|                 |           | <i><u>Purpose and Outcome:</u></i> Information only.  |   |
| <b>11:05 AM</b> | <b>6.</b> | <b>CITIZEN COMMUNICATIONS TO SWAAC AGENDA ITEMS</b>   |   |
| <b>11:15 AM</b> | <b>7.</b> | <b>PREVIEW OF THE NEXT MEETING'S AGENDA AND FINAL COMMENTS</b>  | <b>Matt Korot, Chair</b>  |
|                 | <b>8.</b> | <b>ADJOURN</b>  |   |

\* Material available on the Metro website.

\*\* Material will be distributed in advance of the meeting.

# Material will be distributed at the meeting.

*Continued on back*

Upcoming SWAAC Meetings:

- Wednesday, November 9, 2016 from 10 a.m. to 12 p.m. (noon) at the Metro Regional Center
- Wednesday, December 14, 2016 from 10 a.m. to 12 p.m. (noon) at the Metro Regional Center

For agenda and schedule information, call Matt Korot at 503-797-1760, e-mail: [matt.korot@oregonmetro.gov](mailto:matt.korot@oregonmetro.gov).  
To check on closure or cancellations during inclement weather please call 503-797-1700.

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# Meeting minutes



**Metro**

600 NE Grand Ave.  
Portland, OR 97232-2736

Meeting: Solid Waste Alternatives Advisory Committee (SWAAC)  
Date/time: 10:00 a.m.-noon, Wednesday, September 14, 2016  
Place: Metro Council Chambers

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## **Members in Attendance:**

Reba Crocker, City of Milwaukie  
Paul Downey, City of Forest Grove  
Peter Brandom, City of Hillsboro  
Audrey O'Brien, Oregon Dept. of Environmental Quality  
Adrienne Welsh, Recycling Advocates  
Bruce Walker, City of Portland  
Rick Winterhalter, Clackamas County  
Keith Ristau, Far West Recycling  
Theresa Koppang, Washington County  
Matt Korot, Metro  
Paul Ehinger, Metro

## **Members Absent:**

Alando Simpson, City of Roses Disposal & Recycling  
Mike Leichner, Pride Disposal  
Mark Ottenad, City of Wilsonville

## **Presenters:**

Jennifer Erickson, Metro  
Dan Blue, Metro  
Bruce Walker, City of Portland

### **1. Call to Order and Declaration of a Quorum**

Matt Korot welcomed the Committee members and attendees and asked the members to introduce themselves.

### **2. Comments from the Chair and SWACC Members**

Mr. Korot welcomed new member Peter Brandom of the City of Hillsboro, who had been unable to attend the first meeting of his term.

### **3. Consideration of SWAAC Minutes from July 13, 2016**

SWAAC members approved the minutes of the July 13, 2016 meeting.

### **4. Solid Waste Roadmap: Food Scraps Processing Capacity**

Mr. Korot introduced this agenda item by saying that it is intended to help staff prepare for an Oct. 25, 2016 work session discussion with the Metro Council. Staff will share SWAAC members' input with Council. He noted that Jennifer Erickson and he would be discussing this work with the Metro Policy Advisory Committee on Oct. 12, 2016.

Ms. Erickson started her presentation by providing context for why the region has prioritized the recovery of wasted food, noting that food is the largest component of what the region discards as garbage and that there are significant environmental benefits from recovering it versus disposing in a landfill. She also emphasized that the region's work on recovery supplements other work focused on reducing food waste in the first place and directing edible food to feeding hungry people.

Ms. Erickson noted that the region's work on food scraps recovery is not new: the region has been working on it for over 20 years. The current work is intended to help ensure that the region has a sustainable food scrap recovery system that generates high quality material, has an adequate transfer system and enough stable processing capacity to allow growth in the collection of food scraps over time.

At the Metro Council's direction, staff has developed options for developing a greater supply of commercial food scraps. Ms. Erickson walked through these options, which Council will discuss at the Oct. 25, 2016 meeting:

#### Generator Action Options

##### Option A:

- Require certain categories of food-generating businesses to have food scrap collection service in place. The requirement would start with the largest generators and phase in over 3-5 years.
- Local jurisdictions would be required to establish a mandatory program of their design and ensure the provision of collection services.
- This option is projected to recover an additional 14,500-70,000 tons of food scraps per year, with quantities growing as new categories of businesses are included.

##### Option B:

- Similar to A, with the addition of Metro adopting a regional disposal ban effective in 2022. A disposal ban, monitoring and enforcement would occur at the point of disposal (transfer station or landfill), with limits set on the amount of food scraps allowed in a load.
- Option B could recover up to an additional 70,000 tons annually after the ban is in place.

##### Option C:

- Under this scenario, businesses would not be required to have service, but haulers would provide it upon request. Local governments would require that haulers provide collection to those businesses which choose to participate.
- This option does not allow for estimation of additional tons recovered.

##### Option D:

- Similar to Option C, with businesses initially having the option to participate, but adds a disposal ban in 2022.
- No estimate of additional tons recovered prior to the ban; up to 70,000 tons after the ban is in place.

#### Financial Incentive Options

Ms. Erickson said that the Metro Council is also interested in discussing options for using financial incentives to drive participation. Staff identified the following options:

Option 1:

- Under this model, local jurisdictions would establish food scrap collection rates that are significantly lower than regular garbage rates.

Currently, the cities of Beaverton and Gresham offer such reductions, and both have found that it's an ineffective method for increasing business participation.

Option 2:

- Metro could set the tip fee for food scraps at its transfer stations at an artificially low rate. The low tip fee would flow through to collection rate-setting.
- The costs not recovered through the tip fee would need to be recovered through the garbage tip fee.

Option 3:

- Local government would spread the costs of food scraps collection services across all commercial sector solid waste customers.

Most mandated food scraps collection programs in North America combine generator actions with financial incentives. These types of combinations are possible options for the Metro region, as well.

Ms. Erickson continued by saying that in addition to collecting the estimated 50,000 tons of food scraps annually that are needed for a sustainable program, aggregating the supply will be necessary in order to attract a processing facility to the region.

To accomplish this, flow could be directed solely to Metro's two transfer stations. Potential challenges with this approach are the amount of capacity at Metro South, and whether the west side of the region would be adequately served. Alternatively, Metro could work with the private transfer facilities in the region to determine how to aggregate the material so that it still gets to one processor. An influencing factor in considering these alternatives is where exactly the processing facility would be located.

Ms. Erickson said that the third part of the work that will be discussed with Council is, after getting more material into the system and figuring out how to aggregate it, contracting for processing services. Metro has taken the first step in that process by issuing a request for qualifications for processing services and pre-qualifying nine potential processors to serve the region. If Metro chooses to go forward with procurement, only those nine pre-qualified entities could respond.

In closing her presentation, Ms. Erickson shared results of stakeholder feedback from some businesses in suburban communities in the region. 90% of respondents were not opposed to a mandatory program, and 45% were in favor, mostly because of the environmental benefits. 30% had some concerns, mostly around costs and the availability of assistance to train employees, but were not opposed. Metro staff also consulted with industry organizations: the Northwest Food Processors, Oregon Grocery Association and the Oregon Restaurant and Lodging Association.

### Discussion and Questions

Theresa Koppang asked how many businesses would be affected in each proposed implementation tier?

Ms. Erickson replied:

Group 1 – 841

Group 2 – 1,276 additional

Group 3 – 537 additional

She noted that the numbers include all businesses that would be required to participate. This includes over 1,000 businesses that already participate.

Peter Brandom commented that transfer of collected food scraps will be a big challenge, particularly in western Washington County. Costs to Hillsboro businesses would be high if food scraps had to be delivered to a distant Metro transfer station. Paul Downey and Ms. Koppang echoed this sentiment. Bruce Walker also concurred and noted that Metro has the ability to drive the process to get adequate transfer services.

Ms. Erickson conveyed that Metro shares this concern, adding that how to address west side transfer gaps can't really be determined until a location for the processing facility has been determined.

Mr. Walker added that the City of Portland has a mandatory collection program on the books, but hasn't yet required businesses to comply. He's in support of generator requirements.

Mr. Downey addressed processing: Will there be a ramp-up, or will they need all the tons at once?

There will be some room for a ramp-up, Ms. Erickson responded, but anaerobic digestion facilities, for example, will need a set minimum to begin operations.

Mr. Brandom noted that it just won't be possible for some businesses to participate, particularly due to space constraints, and that there needs to be the ability to grant exemptions. Ms. Erickson concurred.

Rick Winterhalter cautioned that pricing must be looked at closely. His jurisdiction has been subsidizing larger customers for many years. Addressing the embedded subsidy for food scrap generators is important.

Is aggregation simply flow control, Mr. Brandom asked? Mr. Korot replied that the goal is getting the necessary tons to one processor. The instrument used might be to direct material to only Metro facilities, but that may not be the best method to serve the entire region.

Mr. Walker asked how much food is being direct hauled to farms and do we really know that it's going to the higher use of feeding animals or is it a cheap disposal option?

Audrey O'Brien answered that the DEQ is evaluating the agricultural exclusion that allows such uses of food scraps. There is no requirement for DEQ review and approval of such uses. DEQ is working

with the Department of Agriculture to better determine how to ensure appropriate on-farm uses of commercial food scraps.

Mr. Brandom asked that Metro reach out to large generators in Hillsboro to get their input directly. He offered to help facilitate those conversations.

Mr. Walker would like to see a more directive approach, but is mindful of the challenges that other jurisdictions have. He noted also that he hasn't heard opposition by SWAAC members to aggregating flow and directing material to a particular facility, and he believes that it would be helpful for the Metro Council to give strong direction on that.

Mr. Winterhalter emphasized that transfer will be critical to system success and that the entire system should be used; private facilities should be required to accept food scraps and to deliver them to a single processor.

#### **5. Update: SWAAC Subcommittee on Material Recovery Facility (MRF) and Conversion Technology Facility (CT) Regulatory Changes**

Mr. Walker and Dan Blue reported on the (presumably) final meeting of this subcommittee. They recounted that at the July SWAAC meeting, Mr. Walker reported that substantial progress had been made regarding oversight of handling source-separated recyclables at regional MRFs (Material Recovery Facilities). That progress has continued.

The subcommittee reviewed feedback it received regarding recommendations for Conversion Technology facilities, and were able to further refine those recommendations as follows:

1. Require a franchise for CT facilities that receive putrescible waste.
2. Require a license for those receiving only non-putrescible waste.
3. Insert a definition into Metro Code that mirrors the State's definition of CTs.
4. Allow exemption from regulation for CTs that receive feedstocks that have already been extracted from mixed solid waste and prepared for interlocation into an industrial / manufacturing process.

These recommendations (along with recommendations previously agreed upon for regulating source-separate MRFs) are being finalized in a memo that will be provided to the full SWAAC before the October meeting.

#### **6. Citizen Communications to SWAAC Agenda Items**

Paul Woods of SORT BioEnergy commented that he appreciates staff's work on the food project. He offered that the perspective of a developer or investor would be that the higher the risk, the higher the rate of return needed. His firm could build a facility able to take 20,000 tons per year, but it may not prove to be economical to ratepayers. He added that the definition of a ton needs to be integrated into discussions. How much waste that is not-food will be allowed in loads? A cleaner stream reduces risks to the system.

#### **7. Preview of the Next SWAAC Meeting Agenda, Final Comments**

Mr. Korot announced that Oct. 12, 2016 SWAAC meeting will include discussion of the recommendations from the MRF/CT Subcommittee. Other topics are still to be determined.

Related to Mr. Woods comments, Mr. Walker commended Paul Ehinger and Recology for good work on contamination protocols at Metro Central, including notification of Portland staff so that the City can follow-up with businesses with contaminated loads.

**Next meeting:**

Wednesday, Oct. 12, 2016

10 a.m. – Noon

Metro Council Chambers

MEETING TOPIC

FROM

DATE



# Memo

Date: October 5, 2016  
To: Solid Waste Alternatives Advisory Committee (SWAAC)  
From: Roy Brower, Chair – Material Recovery Facility/Conversion Technology Subcommittee (MRF/CT)  
Subject: MRF/CT Subcommittee Recommendations

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## **Executive Summary**

This memo provides MRF/CT Subcommittee recommendations to Metro’s Solid Waste Alternatives Advisory Committee (SWAAC) regarding Metro’s role in oversight and regulation of material recovery facilities that process commingled source-separated recyclable materials (SSR MRFs), conversion technology (CT) facilities and specific material recyclers (SMRs). These recommendations were developed after discussions at seven subcommittee meetings that evaluated the public benefits of increased oversight for the different classes of facilities. The Subcommittee consisted of 15 members (see Attachment A) representing industry, government, advocacy groups and citizens. Stakeholder feedback on this recommendation memo was received between August 12<sup>th</sup> and September 12<sup>th</sup>, 2016. Comments received, along with Metro responses, are compiled in Attachment B. The key recommendations contained in this memo are unanimously supported by the Subcommittee membership.

The key SSR MRF recommendations are:

1. **Metro should authorize SSR MRFs.** Material recovery facilities that receive and process commingled residential and commercial source-separated recyclable materials should be authorized and inspected by Metro similar to other classes of material recovery facilities.
2. **Metro should establish operating standards for SSR MRFs.** SSR MRFs should be subject to operating standards similar to those for other material recovery facilities and meet the following goals described in Metro Code Chapter 5.01:
  - a. Protect the environment.
  - b. Ensure human health and safety.
  - c. Avoid nuisances.
  - d. Ensure material recovery.
  - e. Ensure record-keeping and reporting.

The key CT facility recommendations are:

1. **Metro should continue to franchise CT facilities that manage putrescible waste.** A facility that receives *putrescible solid waste* for a conversion technology process should be subject to a Metro-issued franchise similar to other types of solid waste facilities.
2. **Metro should license certain CT facilities that manage non-putrescible waste.** A facility that receives and processes *non-putrescible solid waste* prior to introducing the waste into a conversion technology process should be licensed and inspected by Metro similar to other types of licensed solid waste facilities.
3. **Metro should establish operating standards for CT facilities.** A facility that is subject to Metro authorization (i.e. solid waste license or franchise) should be subject to

operating standards similar to those for other authorized facilities and meet the following goals described in Metro Code Chapter 5.01:

- a. Protect the environment.
  - b. Ensure human health and safety.
  - c. Avoid nuisances.
  - d. Ensure material recovery.
  - e. Ensure record-keeping and reporting.
4. **Metro should add a definition to its Code for “conversion technology” and define it using the current State definition<sup>1</sup>.** See page 9 for the complete definition.

The key recommendations for the continued exemption of certain specific material recyclers (SMRs) and conversion technology (CT) facilities are:

1. **Metro should continue to exempt certain SMRs from obtaining a license.** Facilities that receive and process specific single stream materials with intrinsic value in established markets such as scrap metal, plastics, papers, or other similar commodities should continue to be exempt from obtaining a Metro license at this time.
2. **Metro should continue to exempt certain CT facilities from obtaining a license.** A facility that receives feedstocks that have already been extracted from mixed solid waste and processed to meet prescribed specifications and largely resemble commodity feedstocks (material streams) for direct introduction into a conversion technology process should continue to be exempt from obtaining a Metro license. This exemption would be similar to those provided to other industrial or manufacturing facilities when the operation of those facilities presents low potential risk to the environment, or to neighboring businesses and residential communities (e.g., odors, dust, noise, vectors, litter, fire safety etc.).

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<sup>1</sup> OAR 340-093-005 Definitions (28) Conversion Technology

**Introduction**

This memo provides MRF/CT Subcommittee recommendations to Metro's Solid Waste Alternatives Advisory Committee (SWAAC) regarding Metro's role in oversight and regulation of material recovery facilities that process commingled source-separated recyclable materials (SSR MRFs), conversion technology (CT) facilities and specific material recyclers (SMRs). These recommendations were developed after discussions at seven subcommittee meetings that evaluated the public benefits of increased oversight for the different classes of facilities. The Subcommittee consisted of 15 members (see Attachment A) representing industry, government, advocacy groups and citizens. Stakeholder feedback on this recommendation memo was received between August 12<sup>th</sup> and September 12<sup>th</sup>, 2016. Comments received, along with Metro responses, are compiled in Attachment B. The key recommendations contained in this memo are unanimously supported by the Subcommittee membership. This memo includes background information, Metro Council direction, the charge of the subcommittee, a discussion of changes to the recycling system in the region which have impacted material processing, and the detailed recommendations of the Subcommittee. The recommendations will be presented to SWAAC at their October 12 meeting.

**Background**

This section provides background information leading to the MRF/CT Subcommittee recommendations regarding Metro's potential role in oversight and regulation of SSR MRFs that receive and process commingled recyclable materials (aka "curbside recyclable materials" or "program materials") and conversion technology facilities that receive solid waste and introduce that solid waste into a conversion process.

As the agency tasked with planning and management of the region's solid waste system, Metro has an obligation to the public to ensure the materials intended for reuse, recycling, and other purposes are handled properly and sent to appropriate and legitimate markets. Certain facilities have been largely exempted from Metro's licensing and oversight responsibilities, creating different rules for similar types of facilities and limiting Metro's ability to ensure that solid waste, including source separated materials, are handled properly. Metro is also obligated to ensure that facilities operate in a way that protects the health and safety of the public, local communities, and the environment.

A public workshop was held in September 2015 at which Metro staff presented information about a range of proposed changes to the solid waste code. These proposed changes included closing regulatory exemptions for certain types of wood waste processing facilities, solid waste reload facilities, e-waste processing facilities, SSR MRFs, and conversion technology facilities, as well as clarifying the types of waste that qualify for Metro's reduced fee and tax rate, and fee and tax exemptions.

Industry participants expressed considerable concern regarding some of the proposed code changes. Additionally, many stakeholders expressed concerns about the lack of transparency of Metro's code adoption process and not having adequate opportunity to provide meaningful input.

Staff shared the feedback it received with the Metro Council at a work session in October 2015. Metro Council endorsed the staff proposal to establish an improved and more rigorous process for considering substantive changes to the solid waste code. Metro Council further endorsed the staff proposal to recommend that SWAAC establish two subcommittees to separately consider: (1) Metro regulation of material recovery and conversion technology facilities; and (2) existing solid waste fee and tax exemptions.

In December 2015, SWAAC voted to form a MRF/CT Subcommittee and provided staff with recommendations on the composition of that subcommittee. This memo documents the findings and recommendations of the MRF/CT Subcommittee.

### **Metro Council Direction**

Metro Council has established that the region's solid waste management system should deliver and consider the following public benefits:

1. Protect people's health.
2. Protect the environment.
3. Maintain our commitment to the solid waste hierarchy as set forth in state law.
4. Get good value for the public's money.
5. Maintain a system that is flexible and adaptable to changing needs and circumstances.
6. Ensure adequate and reliable services are available to all customers.

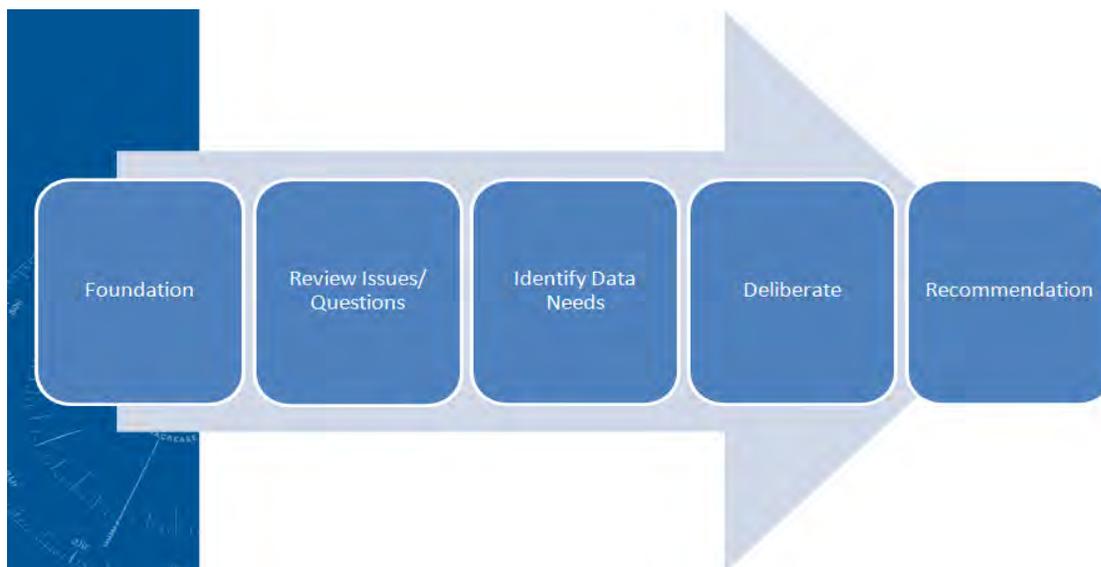
These public benefits guide the work of the Solid Waste Roadmap projects, Regional Solid Waste Management Plan (RSWMP) development, SWAAC, proposed Metro code changes, and the MRF/CT Subcommittee.

### **Subcommittee Purpose**

The charge of the MRF/CT Subcommittee was as follows:

Consider whether MRFs that process source-separated recyclable materials and facilities that convert waste to energy, fuel, or other products should be subject to licensing and inspection requirements similar to other solid waste facilities. If so, which requirements are appropriate for such facilities?

The work of the Subcommittee generally followed the process flow shown in the diagram below. The recommendations for CT facilities builds on the Subcommittee discussions regarding the pros and cons of regulating SSR MRFs. Based on those discussions, staff developed the CT facility recommendations contained in this memo for consideration by the Subcommittee. The CT recommendations were discussed and finalized at the final MRF/CT Subcommittee meeting held September 12, 2016.



### **Source-Separated Recycling System Changes**

The primary purpose of the Subcommittee was to consider the changes that have happened in the region's recycling infrastructure (especially the source-separated curbside system) and how those changes have altered how SSR MRFs operate as well as potential negative impacts resulting from those operations. The intent of the Subcommittee was to evaluate whether Metro should have a greater oversight role at these facilities that function very differently than they did when first exempted from Metro's licensing and inspection requirements.

In the 1990s, Metro exempted facilities that process source-separated recyclable materials from licensing. Since that time several changes have occurred which have contributed to Metro's potential need to regulate SSR MRFs. For instance, set-out practices and collection systems have evolved significantly from the early days of curbside collection when materials were placed at the curb separately from one another (bundled, bagged, or otherwise sorted into multiple bins).

The last 15 years have seen a movement to "commingle" program materials together at the curb (though glass still remains "on the side"). This shift was initiated by local governments and haulers who desired to make recycling more convenient for residents (less time sorting and easier to haul materials to the curb) which in turn would lead to increased overall recovery and increased collection efficiencies which would keep costs lower than separate collection of each material. The greatest change occurred with the widespread transition from bins to carts which led to more materials being set out but also more materials being placed in the carts that are not recyclable.

While the benefits of commingling have been realized, the change led to a higher level of contamination in the recyclable materials as more non-program materials were collected in curbside carts. This, in turn, has challenged processing facilities that must sort, process, bale and market materials. Contamination rates that were in the three percent range when materials were not commingled are now at nine percent for commingled loads from the residential sector (though a portion of the contaminants are recovered for recycling). This nine percent rate has remained consistent since the shift to commingling occurred over a decade ago.

Concurrent with the changes in set-out and collection practices, there were other systemic changes that were beyond the MRFs' control including the composition of materials arriving at their gates and continuing volatility in recyclable material markets.

In the early 1990s, newsprint made up nearly 70 percent of the material arriving at SSR MRFs in the region. Today, as print publications continue their rapid decline in the marketplace, that material constitutes less than a third of the mix delivered to SSR MRFs. The reality is that SSR MRFs now receive more low-value and harder-to-process materials than they have in the past.

To compound these challenges, an increasingly complex and volatile local, national, and global market for recyclable materials has resulted in local SSR MRFs, which historically were able to purchase curbside recyclables from haulers, being forced to charge processing fees in order to remain in business. Market volatility has also led to longer term storage of baled and loose materials which has increased the potential for material degradation beyond the point of recovery.

It is important to note that SSR MRFs had very little input or control over these changes and have been forced to adapt to an ever changing environment. Investments in equipment and process upgrades have been, and continue to be, risky due to uncertainty on both the supply and demand sides of the industry.

As a result of these system changes, facilities that receive and process commingled source-separated recyclable materials now potentially face many of the same operational and management

challenges as that of other solid waste processing operations. Through the MRF/CT Subcommittee process, Metro sought additional input and advice on whether these types of operations should be held to a similar level of oversight as other solid waste facilities and, if so, what level of oversight would be appropriate. Metro seeks to balance the need to increase and maintain recycling while assuring the public that facilities are managing materials in a safe and appropriate manner.

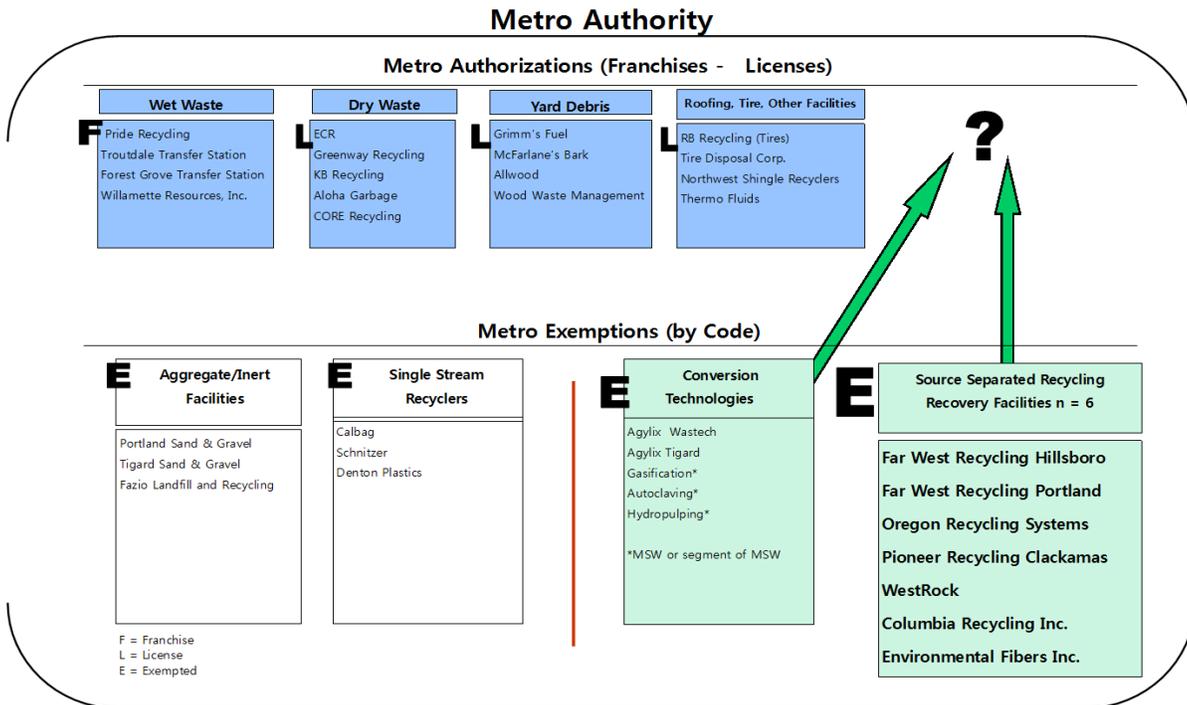
**Conversion technology facilities introduced to region:**

The Metro region has only one CT facility (Agilyx - which currently converts recovered plastics into synthetic crude oil, petrochemical products, and monomers at its Tigard facility). However, in recent years Metro has received many inquiries from a variety of different firms that have an interest in either locating within the region, or gaining access to a portion of the region’s solid waste as a feedstock for a conversion technology facility.

Current Metro Code does not specifically address conversion technology facilities. Metro Code specifies that a license is required for a facility that processes non-putrescible waste and a franchise is required for a facility that processes putrescible waste. Furthermore, the Code also states that “any other activity not listed....or exempted by Metro Code Section 5.01.040” requires a franchise.

**Approach to Metro Authorizations**

The diagram below shows different classes of facilities currently under Metro authority. Metro regulates most classes already via a franchise or license. Other classes of facilities are currently exempted in Metro Code but subject to inspections.



Metro has broad legal authority over solid waste activities within the region (including facilities that accept and process source-separated recyclables) but has not chosen to fully exercise that authority for all facility classes. The Metro Code specifies the types of solid waste facilities that require authorization and those that are exempt. Those that require authorization include transfer stations, dry waste MRFs, yard debris reload and composting facilities, food waste composting and anaerobic digestion facilities, and other special authorizations such as tire and roofing material

processing facilities. Other classes of facilities are currently exempt from obtaining a Metro authorization, including aggregate and inert (sand, gravel, rock, etc.) facilities and specific material recycling facilities (metal, plastic or other single stream material facilities).

Metro's solid waste code (Title V) and related administrative procedures ensure that Metro has clear, consistent, and equitable requirements for monitoring solid waste facilities and tracking waste in the region. Metro's role as regional solid waste planning agency is intended to assure the public that all solid waste is managed in an appropriate and safe manner with minimal impacts to local communities.

### **Source Separated Recycling Material Recovery Facility (SSR MRF) Recommendations**

**Recommendation 1: Metro should authorize SSR MRFs.** Material recovery facilities that receive and process commingled residential and commercial source-separated recyclable materials should be authorized and inspected by Metro similar to other classes of material recovery facilities.

Because of the known or potential impacts of facilities that receive and process source-separated commingled recyclables, the changing collection system, the changing composition of the commingled recycling material stream, and the highly volatile nature of recycling markets, the membership of the MRF/CT Subcommittee supports removing the exemption and requiring these facilities to obtain a Metro authorization to operate and be subject to random inspections similar to other resource recovery facilities.

It should be noted that industry representatives on the Subcommittee were divided on what sort of authorization should be applied to SSR MRFs. One industry representative, who is generally opposed to regulation, suggested a third-party certification process while other industry representatives were comfortable with recommending that SSR MRFs be subject to the same licensing, reporting, and inspection process as other similarly-situated material recovery facilities.

### **Characteristics of SSR MRFs Recommended for Additional Regulation**

SSR MRFs that receive and process commingled recyclable materials have certain characteristics that distinguish them from other classes of exempted facilities. When considering whether a facility should remain exempt or be subject to regulation, the Subcommittee generally was in consensus that if a facility exhibits **any of the following** characteristics, it should be subject to Metro authorization, inspections, and reporting:

- The facility receives and processes commingled residential and commercial recycling streams.
- The commingled material is typically collected within a local regulated solid waste system.
- The facility has little or no control over incoming material.
- Speculative accumulation can occur and may result in degradation of materials if not processed and moved in a timely fashion.
- There are current or potential negative environmental or health and safety impacts.
- There are current or potential negative impacts offsite e.g. adjoining properties and community (dust, noise, smell, vectors, litter, fire safety, etc.).

Additional characteristics that the Subcommittee identified, and which may also be considered regarding potential regulation of a SSR MRF, include:

- Variable contamination rates depending on generator practices.
- Facilities are subject to negative impacts of a highly volatile commodity market.
- Facility operations can impact rates charged to generators.

**Recommendation 2: Metro should establish operating standards for SSR MRFs.** SSR MRFs should be subject to operating standards similar to those for other material recovery facilities and meet the following goals described in Metro Code<sup>2</sup>.

- (a) **Environment.** Facilities should be designed and operated to avoid undue threats to the environment (e.g., storm water or groundwater contamination, air pollution, and improper acceptance and management of putrescible waste, hazardous waste, asbestos and other prohibited wastes).
- (b) **Health and Safety.** Facilities should be designed and operated to avoid conditions that may degrade public health and safety (e.g., fires, vectors, pathogens and airborne debris).
- (c) **Nuisances.** Facilities should be designed and operated to avoid nuisances (e.g., litter, dust, odors, and noise).
- (d) **Material Recovery.** Facilities should be designed and operated to ensure material recovery in a timely manner to maintain material quality and avoid degradation.
- (e) **Record-keeping and reporting.** Facilities should keep and maintain complete and accurate records of the amount of all solid waste and source-separated recyclable materials received, recycled, reloaded, and disposed and they should periodically report data as required by their regulatory instrument.

There was considerable discussion and concern among the Subcommittee members as to Metro's intentions related to requiring SSR MRFs, through a license or other form of authorization, to improve the quality of the outgoing recyclable materials going to market through process improvements such as belt speeds, contamination and quality specifications, new equipment, requiring additional sorters, or placing back end outcome-based performance standards on material quality as a means to "improve SSR MRF performance."

Metro staff went to great lengths to clarify for the Subcommittee membership that the focus of this process was on operational standards related to environmental protection, health and safety, avoiding nuisances, and ensuring that source-separated recyclables were not degraded through the operation of the facility. The focus was not on the aforementioned "performance" measures. Metro staff further clarified that Metro and other solid waste system stakeholders may address those so-called back of the house or outgoing material performance issues through other forums in the future.

Metro staff further clarified that the general operating standards outlined are necessary to protect the public's interest at this time and should be incorporated into a Metro authorization regardless of whether any other work is done in the future on material quality performance standards.

### **Conversion Technology (CT) Facility Recommendations**

**Recommendation 1: Metro should continue to franchise CT facilities that manage putrescible waste.** A facility that receives *putrescible solid waste* for a conversion technology process should be subject to a Metro-issued franchise similar to those issued to other types of franchised solid waste facilities. For instance, a facility that process food waste, such as an aerobic digester facility, should still obtain a Metro franchise.

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<sup>2</sup> Metro Code Chapter 5.01.053(i)(1)-(6).

**Recommendation 2: Metro should license certain CT facilities that manage non-putrescible waste.** A facility that receives and processes *non-putrescible solid waste* prior to introducing the waste into a conversion technology process should be licensed and inspected by Metro similar to other types of licensed solid waste facilities.

**Recommendation 3: Metro should establish operating standards for CT facilities.** A facility that is subject to Metro authorization (i.e. solid waste license or franchise) should be subject to operating standards similar to those for other authorized facilities and meet the following goals described in Metro Code Chapter 5.01:

- (1) **Environment.** Facilities should be designed and operated to avoid undue threats to the environment (e.g., storm water or groundwater contamination, air pollution, and improper acceptance and management of putrescible waste, hazardous waste, asbestos and other prohibited wastes). (Metro Code 5.01)
- (2) **Health and Safety.** Facilities should be designed and operated to avoid conditions that may degrade public health and safety (e.g., fires, vectors, pathogens and airborne debris). (Metro Code 5.01)
- (3) **Nuisances.** Facilities should be designed and operated to avoid nuisances (e.g., litter, dust, odors, and noise). (Metro Code 5.01)
- (4) **Material Recovery.** Facilities should be designed and operated to promote the highest and best use of materials according to the waste reduction hierarchy as defined in Metro Code Chapter 5.00. (Solid Waste Definitions)
- (5) **Record-keeping and reporting.** Facilities should keep and maintain complete and accurate records of the amount of all solid waste received, recycled, reloaded, and disposed and they should periodically report data as required by their regulatory instrument. (Metro Code 5.01)

**Recommendation 4: Metro should add a definition to its Code for “conversion technology” and define it using the current State definition.** In Oregon’s Administrative Rules, it defines a “Conversion Technology Facility” to mean a facility that uses primarily chemical or thermal processes other than melting (changing from solid to liquid through heating without changing chemical composition) to produce fuels, chemicals, or other useful products from solid waste. These chemical or thermal processes include, but are not limited to, distillation, gasification, hydrolysis, pyrolysis, thermal depolymerization, transesterification and animal rendering, but do not include direct combustion, composting, anaerobic digestion, melting, or mechanical recycling. Mills that primarily use mechanical recycling or melting to recycle materials back into similar materials are not considered to be conversion technology facilities, even if they use some chemical or thermal processes in the recycling process.

#### **Recommendations to Maintain Certain Exemptions**

**Recommendation 1: Metro should continue to exempt certain SMRs from obtaining a license.** Facilities that receive and process specific single stream materials with intrinsic value in established markets such as scrap metal, plastics, papers, or other similar commodities should remain exempt from obtaining a Metro license.

#### **Characteristics of Specific Material Recyclers Exempt from Licensing**

Single material recyclers that receive and process recyclable materials have certain characteristics that distinguish them from other classes of exempted facilities. Specific material recyclers that have **all of the** following characteristics should remain exempt at this time:

- Limited volatility in end markets resulting in facilities' consistently able to utilize or market materials.
- They do not accept commingled residential or commercial source-separated recyclables.
- Business-to-business transactions generally do not impact the rate making process or rates charged to residential or commercial generators in regulated collection markets.
- Feedstock specifications are prescribed to minimize contamination.
- Insignificant contamination of single-stream materials entering the facilities.
- The facility's receipt and processing of the feedstock presents low potential risk to the environment, or to neighboring businesses and residential communities (e.g., odors, dust, noise, vectors, litter, fire safety etc.).

**Recommendation 2: Metro should continue to exempt certain CT facilities from obtaining a license.** A facility that receives feedstocks that have already been extracted from mixed solid waste and processed to meet prescribed specifications and largely resemble commodity feedstocks (material streams) for direct introduction into a conversion technology process should continue to be exempt from obtaining a Metro license. This exemption would be similar to those provided to other industrial and or manufacturing facilities when the operation of those facilities presents low potential risk to the environment, or to neighboring businesses and residential communities (e.g., odors, dust, noise, vectors, litter, fire safety etc.).

#### **Characteristics of CT Facilities Exempt from Obtaining a Metro License.**

CT facilities that receive feedstocks that have already been extracted from mixed solid waste and otherwise processed to conform to prescribed specifications and largely resemble commodity feedstocks (material streams) for direct introduction into a conversion technology process may have the following characteristics:

- The facility does not accept unprocessed, mixed solid waste from collection trucks/containers, reload facilities, or other solid waste generators.
- A majority of feedstock material is used productively in conversion process.
- Feedstock specifications are prescribed to conform to the specific conversion technology industrial process requirements.
- Shredding, mixing, right-sizing or other similar treatment of already sorted and processed feedstocks typical in a manufacturing process does not constitute "processing of solid waste".
- The facility's receipt and processing of the feedstock presents low potential risk to the environment, or to neighboring businesses and residential communities (e.g., odors, dust, noise, vectors, litter, fire safety etc.).

#### **Conclusion**

Since the early 1990s, there have been new materials handled by different types of solid waste facilities in the region that have made it more challenging to protect the public interest, the environment and public health. These recommendations, if adopted by the Metro Council, would apply Metro's solid waste code with greater clarity, consistency and transparency and increase the public's confidence that the materials it discards will be handled in an environmentally safe and cost-effective manner.

**Attachment A**  
**Metro, Solid Waste Alternatives Advisory Committee**  
**MRF/CT Subcommittee Membership List**

The following individuals served on the MRF/CT Subcommittee between February and September of 2016.

<b><u>Name</u></b>	<b><u>Organization</u></b>	<b><u>Category</u></b>
Roy Brower, Chair	Metro	Regional Government
Bruce Walker	City of Portland	Local City Government
Theresa Koppang	Washington County	Local County Government
Mike Davis	Clark County	Local State of Washington Government
Audrey O'Brien	Oregon DEQ	State Government
Vinod Singh	Far West Recycling	SSR MRF Operator
Jeff Murray	EFI Recycling	SSR MRF Operator
Andy Kahut	K.B. Recycling	SSR MRF, Dry Waste Operator
Brian May	Republic Services	Dry Waste Operator
Scott Farling	Agilyx	Conversion Technology Operator
Matt Marler	Covanta	Energy Recovery Operator
Dylan de Thomas	Resource Recycling	Independent Industry Expert
Betty Patton	Recycling Advocates	Environmental Advocacy Representative
Mike Lafferty	Washington County SWAC	Citizen/Community Representative
Francisco Ibarra	Americorps – Latino Net.	Citizen/Community Representative

**Metro Staff Support:**

Dan Blue, Solid Waste Compliance  
Shane Abma, Office of Metro Attorney  
Kim Waxler, Property and Environmental Services  
Susan Boase, Property and Environmental Services

**Attachment B**  
**MRF/CT Subcommittee Recommendation Memo**  
**Compilation of Feedback Received, Metro Response, and Actions Taken**

On August 12, 2016, Metro staff developed a draft MRF/CT Recommendation Memo which included Subcommittee agreed upon recommendations for the potential regulation of SSR MRFs and Conversion Technology (CT) facilities. The memo was distributed to all members of the MRF/CT Subcommittee and 75 interested parties to the MRF/CT discussion. The draft was also available to the public on Metro's website. The Subcommittee held extensive discussions to better hone the recommendation. Following are additional comments received to that draft memo outside of the Subcommittee meetings and Metro staff response to those comments. In some cases the comments were provided by email in written form, and in some cases were provided in person or over the phone.

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1. Scott Farling (SF), by email: Page 2, Recommendation 4. Comment received: "Conversion Technologies are not only used for solid waste. Consider modifying definition [of solid waste]."  
**Response: Metro's definition of solid waste is not proposed to be changed and includes recyclable materials. No change made.**
2. SF: Page 2, Recommendation 2. Comment received: "Feedstock materials not necessarily from mixed solid waste."  
**Response: Metro's definition of solid waste is not proposed to be changed and includes recyclable materials. No change made.**
3. SF: Page 2 and 13, Recommendation 2. Regarding statement "does not pose a risk". Comment received: "broad-reaching statement, consider changing "does not pose a risk" to "does not pose an unmitigated risk"  
**Response: Unmitigated means absolute, and that is not a reasonable threshold. Recommendation memo is to provide broad recommendations to SWAAC on regulation, specific wording will be addressed in administrative rule process where further public input will be sought. Staff believes the intent of the broad wording is clear. No change made.**
4. SF: Page 5, Subcommittee Purpose. Comment received: Add "petrochemistry products" to language describing CT facilities.  
**Response: Change made.**
5. SF: Page 7 Conversion Technology overview. Comment received: Revise to replace word "fuel" with "synthetic crude oil"  
**Response: Change made.**
6. SF: Page 12 Conversion Technology Facility definition. Comment received: "insert "energy" to be consistent"  
**Response: This is exact wording of the state definition. "Energy is covered under "or other useful products" in definition. No change made.**

7. SF: Page 13 Characteristics of CT Facilities Exempt from Metro Authorization. Comment received: Regarding direct introduction and processing of feedstocks in a conversion technology process. “conversion technology systems may include processes such as size reduction and quality control” and “shredding, quality control sorting, and similar activities should not be restricted. mixing feedstock is an operational process that should not be restricted”  
**Response: Comment provides greater clarity in the distinction between processing mixed solid waste and additional processing of industrial feedstocks in a conversion technology facility. Change made.**
8. Jeff Murray (JM): Page 4 Regarding Metro Council Direction section that reads: “Facilities that receive and process source-separated commingled recyclable materials or other solid waste have the potential to negatively impact the environment, public health and safety, and adjoining businesses and neighborhoods. These types of facilities are periodically a source of litter, odor, dust, and vectors. In addition, certain operational practices at SSR MRFs may cause the degradation and destruction of recyclable materials making them less marketable or unmarketable.” Comment received: “There is a distinct difference between commingled recyclables and “other solid waste”. Commingled facilities are not allowed to receive any significant amounts of “other solid waste”. Adding this statement may skew the view that commingled recyclables are not any different than material processed at dirty MRFs.”  
**Response: Metro’s definition of solid waste is not proposed to be changed and includes recyclable materials.**
9. JM: Page 6 Source Separated Recycling System Changes. Comment received: Regarding using word “generator” “Recommend keeping “generator” if we are considering commingled residential as well as commingled commercial recyclables.”  
**Response: No change made.**
10. JM: Page 9. Characteristics of SSR MRFs Recommended for Additional Regulation. Comment regarding the entire section: “The section could describe any type of source-separated recycling facility, particularly with the use of the term: “**Any of the following** characteristics...” Will this be the litmus test used to determine if other recycling facilities should be regulated?”  
**Response: Recommendation memo is to provide broad recommendations to SWAAC on regulation, specific wording will be addressed in administrative rule process where further public input will be sought. Staff believes the intent of the broad wording is clear. No change made.**
11. JM, by email: Page 12. Characteristics of Single Material Recyclers Exempt from Licensing. Third bullet: “They do not generally accept commingled residential or commercial source-separated recyclables.” Comment received: “The word “generally” should be dropped. The sentence should reference commingled “program material” collected on route by licensed refuse / recycling haulers.”  
**Response: Change made.**
12. JM Page 12. Characteristics of Single Material Recyclers Exempt from Licensing. Seventh Bullet: “Little or unknown negative impacts to the environment or to neighboring businesses and residential communities as a result of their operation (e.g., odors, dust, noise, vectors, litter, fire safety etc.) Comment received: “Concerned about the wording of

the sentence. The use of the word “unknown.” Use language that is consistent with the SSR MRF Regulation recommendations. Specifically, language similar to the sixth bullet point in **Characteristics of CT Facilities Exempt from Metro Authorization** (section immediately below).”

**Response: Change made.**

13. JM Page 13. Characteristics of CT Facilities Exempt from Metro Authorization. Fifth bullet: “The facility does not manually or mechanically process, sort, or mix the feedstock prior to introducing it into a conversion technology process;” Comment received: “Are the facilities not allowed to have equipment and / or sorting capacity to re-assure quality feedstock?”  
**Response: Greater clarity in the distinction between processing mixed solid waste and additional processing of industrial feedstocks should be provided. Facilities would be allowed to have equipment and/or sorting capacity to re-assure quality feedstock so long as that additional processing creates low potential risk to the environment or to neighboring businesses and residential communities. Change made.**
14. JM Page 13. Characteristics of CT Facilities Exempt from Metro Authorization. Sixth bullet: “The facility’s receipt and processing of the feedstock presents low potential risk to the environment, or to neighboring businesses and residential communities (e.g., odors, dust, noise, vectors, litter, fire safety etc.)” Comment received: “The language used in this bullet may be appropriate to use in regards to (sic)... Characteristics of SMRs Exempt from Metro Authorization”  
**Response: Change made.**
15. JM Page 13 Memo conclusion. Comment received: “Concern regarding the use of the term “solid waste facilities” when describing source-separated recycling facilities.”  
**Response: Metro’s definition of solid waste is not proposed to be changed and includes recyclable materials. No change made.**
16. Dean Kampfer (DK) Page 13 Conclusion. Comment received: “The document it is not clear to me if you are regulating the Metro generated material or only the facilities that are located in the Metro region. As an example look at the conclusion.”  
**Response: Metro proposes to regulate these types of facilities and materials consistent with how it currently regulates other solid wastes and facilities. In-region processing facilities would be required to obtain authorization to operate from Metro. Materials that flow outside of the region would need to go to facilities that meet similar standards as those in the region. No change made.**
17. DK: Page 5. Metro Authority Chart. Comment received: “should TVWR be added to the list of dry waste processing facilities.”  
**Response: The Metro Authority Chart was not intended to include all facilities. In the specific case of TVWR, it is regulated as a designated facility because it is located outside the boundary.**
18. DK: Page 11. Recommendation 3. Goals. Comment received: “CT meet the following goals, (4) material recover – highest and best use, should this be subject to economic considerations.”  
**Response: These are broad operating standards meant to inform the MRF/CT recommendations to SWAAC. Metro staff does not believe further qualifying the**

**standards is necessary. Specific wording will be addressed in the administrative rule process.**

19. Audrey O'Brien (AO): Page 13. Characteristics of Exempt SMRs and CTs. Comment received: "remove first bullet related to financial exchange associated with accepting, purchasing materials by facility."

**Response: Change made.**

20. Terrell Garret (TG), by email: Page 13. "The first necessary characteristic on Page 12 relative to exemption of SMRs should be removed."

**Response: Change made.**

21. TG, by email: Comment received: "On page 12 it says that ALL OF THE FOLLOWING CHARACTERISTICS have to be present in order for a SMR to be exempt from licensing. Therefore, under this proposed rule, Recycled Asphalt Solutions, LLC (RAS) would have to gain a Metro license for their activities as the company charges for the receipt of clean shingles fob at the various supplying MRF's. Whether RAS charges for the receipt of shingles at a MRF or not really has nothing to do with whether or not the market for shingles is established. What is relevant is whether or not there is proven legal usage of the material versus illegal landfilling of the material. Past that test is really not within Metro's concern, especially when considering manufacturer scrap which is deemed by the superior governmental agency, DEQ, to be a beneficial use material by definition. Further, there is some great question of whether or not Metro, through the solid waste authority given it by DEQ, has the right to regulate "recycled material". According to DEQ a material which has been processed, such as that done daily by MRF's in the region for shingle recycling, and is presented to a market, is accepted by that market, and is legally used, is a recyclable and will not be regulated. Also, DEQ recognizes that most "recyclables" have need for further processing prior to final disposition."

**Response: In convening the subcommittee, staff indicated that this would not be the appropriate venue to adjudicate Metro's legal authority to regulate solid waste. Metro does not derive any of its legal authority from DEQ except as specified by state law or intergovernmental agreements. Metro and DEQ are both governments established by state statute. Metro is an independent home-rule charter-based government that derives its authority from ORS 268.317, and ORS 459 and 459A. The grant of authority to Metro in state law is very broad as it pertains to solid (and liquid) waste. The Metro Charter also serves as a source of Metro's authority in solid waste and its granting of authority is also very broad. Metro's legal authority is limited only when called out in state statute.**