

# A G E N D A



METRO

MEETING: **REGIONAL SOLID WASTE ADVISORY COMMITTEE (SWAC)**  
DATE: Thursday, July 27, 2006  
TIME: 10:00 a.m. – Noon  
PLACE: Rooms 370A/B, Metro Regional Center, 600 NE Grand Avenue, Portland

---

- 5 mins. **I. Call to Order and Announcements ..... Rod Park**  
*Introductions*  
*Announcements*  
*Approval of Minutes\**
- 5 mins. **II. Solid Waste & Recycling Director's Update..... Mike Hoglund**
- 15 mins. **III. Reducing Key Contaminants from Residential Curbside Recycling ..... Vicki Kolberg**  
*TV spots are now running as part of a coordinated regional advertising campaign designed to reduce glass and plastic bag contaminants in residential recyclables. This agenda item is intended to provide SWAC with a look at the television spots, information on other events and actions that are part of the outreach campaign, and the plan for evaluating the campaign's effectiveness.*
- 50 mins. **IV. Recycling roll carts: Regional Experience To-Date..... Scott Keller, Andy Kahut, Bob Sjolander**  
*The draft Interim Waste Reduction Plan notes that an additional 54,000 tons of recovered material is needed from the single-family residential sector to help meet the 64% waste reduction goal. According to the Plan, "... increased recovery of material from the single-family residential sector will result as local jurisdictions throughout the region convert from bins to roll carts for the collection of recyclables." With that statement, the Plan identifies the expansion of recycling roll carts as The Key Strategy for significantly increasing material recovery in the single-family residential sector. This agenda item is intended to (a) provide SWAC with information on the experience to-date with recycling roll carts in the region; (b) explore whether current information truly points to roll carts as the next best step for collecting more residential recyclables; and (c) discuss whether there is a role for Metro in providing any technical or program support that would help answer outstanding questions.*
- 20 mins. **V. Disposal System Planning: Analysis, Decisions, Next Steps\* ..... Paul Ehinger**  
*A consultant's analysis of different ownership options for delivery of waste transfer services in the Metro region was completed last month. The three ownership options investigated included a fully privately-owned system, a fully publicly-owned system and a public/private hybrid substantially similar to the current regional system. This agenda item is intended to (a) update SWAC on Metro Council's recent discussion and decisions relative to the options examined, and (b) identify next steps in planning and policy development for the region's disposal system.*

**20 mins. VI. Final Steps on the Waste Reduction Plan\*.....Janet Matthews**

*Metro is required to maintain a DEQ-approved waste reduction plan. For the past ten years, the Regional Solid Waste Management Plan (RSWMP) has satisfied this requirement. Last July, Metro Council approved the development of an interim waste reduction plan (IWRP) to fulfill this state requirement until the updated RSWMP is complete and adopted. SWAC members have participated in the development of the IWRP draft through SWAC and various other working groups. After a recent public comment period, the IWRP has been reviewed by DEQ. This agenda item is intended to provide SWAC with an update on comments received, changes made to the IWRP draft, and the schedule for Metro Council consideration of the document.*

**5 mins. V. Other Business and Adjourn..... Rod Park**

*\*Material for this agenda item attached.*

**All times listed on this agenda are approximate. Items may not be considered in the exact order listed.**

**Chair: Councilor Rod Park (797-1547)      Staff: Janet Matthews (797-1826)      Committee Clerk: Susan Moore (797-1643)**

JM:gbc

M:\rem\od\projects\SWAC\Agenda\_Minutes\2006\SWAC072706aga.doc

Queue



**METRO**

600 NE Grand Ave.  
Portland, OR 97232-2736

**MEETING SUMMARY**  
**Solid Waste Advisory Committee**  
Metro Regional Center, Room 370A/B  
May 25, 2006

**Members / Alternates Present:**

Councilor Rod Park, Chair	Dave Garten	Vince Gilbert
Mike Hoglund	Steve Schwab	Dave White
Mike Leichner	Ray Phelps	Mike Miller
Bruce Walker	Loretta Pickerell	JoAnn Herrigel
Paul Edwards	Glenn Zimmerman	Tom Badrick
Eric Merrill	Lori Stole	Matt Korot
Rick Winterhalter	Jeff Murray	Wendy Fisher
Janet Malloch		

**Guests and Metro staff:**

Janet Matthews	Janelle Geddes	Meg Lynch
Brad Botkin	Lee Barrett	Scott Klag
Andy Kahut	Steve Apotheker	Bryce Jacobson
Easton Cross	Karen Kane	Jim Watkins
Paul Garrahan	Paul Ehinger	Jennifer Erickson
Dan Wilson	Brad Botkin	Roy Brower

**I. Call to Order and Announcements ..... Councilor Park**

- Councilor Rod Park began the proceedings and asked those present to introduce themselves. Janet Malloch was introduced as the new alternate for member John Lucini; her appointment was scheduled to be confirmed by Council later that day.
- Prior to approval of the April 27 minutes, the City of Milwaukie's JoAnn Herrigel noted an error on page two, referencing "\$375,00" rather than "\$375,000." The error will be corrected for the permanent record. With that change, the minutes were approved unanimously.

**II. Solid Waste & Recycling Director's Update ..... Mike Hoglund**

- Mr. Hoglund reported on the Nature in Neighborhoods grant process. Primary focus is on fish/wildlife restoration, he said, but of 43 projects submitted for grants, 18 have a solid waste element. Of those 18, 17 are being recommended for funding. (A total of 32 projects will be funded.) Solid waste industry members are involved in several of the projects, providing dumpsters, recovery services, processing, debris removal, etc.  
  
Councilor Park mentioned that partnerships between community groups and industry members is encouraged. Because of issues such as illegal dumping, more innovative partnerships can be forged for future rounds of grants, he said.
- An all-day training called "Diesel Emissions Boot Camp" was held a few weeks ago, Mr. Hoglund said, for people involved on the technical side of the issue, such as equipment operators or purchasing agents. Matching correct fuel and filters to engines was an important part of that

training, he added. While he did not attend the training, Mr. Hoglund said that he did participate in the Diesel Emissions Forum a discussion of policy issues, the next day. In the last station operations contract, he reminded the group, Metro included stipulations that filters and catalysts be put on equipment at its facilities. While that has been a success, a pilot project to fit ceramic filters on CSU trucks was unsuccessful because of a mismatch between fuel and filter. Stories such as this are occurring nationwide as companies learn what does and doesn't work for emissions reduction. For a relatively low cost, companies can retrofit catalysts to diesel engines and capture 50-60% of particulate emissions and a substantial amount of other emissions. Actual filters are much more expensive, but can capture 90%.

Mr. Hoglund would like to convene a sub-committee to discuss the best ways to address particulate emissions from a sustainability standpoint. A pilot project could be developed at a transfer station or composting facility, or on haulers' trucks. How to fund such a project is unknown at this time. SW&R Engineering & Environmental Services Manager, Jim Watkins, has met with local governments; the next step will be to include haulers. Mr. Watkins will set that up.

ORRA's Dave White informed the group that his association helped sponsor the Emissions Boot Camp, and said that Governor Kulongowski has put a North Portland Diesel Emission Reduction Project into place. Mr. White was there prior to this meeting. Two local haulers are involved (Arrow Sanitary and Cloudburst Recycling). ORRA will be signing a commitment to participate, as well. Legacy System's Tom Badrick added that area hospitals are also working to reduce emissions.

- Residential Outreach Campaign: A couple of years ago, a workgroup recommended creating a regional advertising campaign to address common problems in residential recycling. Industry members informed that group that plastic bags and broken glass were two of the biggest challenges; these will be the focus of this year's campaign, Mr. Hoglund said. Coates Kokes Advertising has been awarded the project after an RFP process, he continued. A committee of industry, haulers, and local governments is reviewing the concepts and recommendations for the campaign, which will launch July 10 and include television ads. Clackamas County is contributing funds to provide additional advertising in their area, and the City of Portland has budgeted for supplemental materials.
- In Regulatory Affairs matters, Mr. Hoglund announced, Pacific Land Clearing has been issued a license for its MRF (PLC applied prior to the moratorium). Five-year license renewals recently went to PLC's other two Metro region locations, as well as to American Compost & Recycling, and ThermoFluids. Michael Johnson Construction has been issued a final order for fine payments totaling \$52,000. The fine is for falsely claiming that nearly 800 loads of solid waste delivered to Lakeside Reclamation originated outside the Metro region.
- Next, Mr. Hoglund explained a handout regarding the split rate recommended by the Rate Policy Sub-committee and Rate Review Committee (see attached, "Disposal Charge at Metro Transfer Stations"). Customers using automated scales will be charged a lesser rate than those using the traditional scalehouse; the overall Metro Tip Fee drops by \$1.55.

Councilor Park added that a letter was received voicing concern that a lower tip fee could negatively affect recycling. While he believes these concerns are a result of some old information that is no longer valid, he asked SWAC members to please forward any other such apprehensions or comments to him. "We didn't start with a number in mind," the Councilor said. "We started with the policies in mind and this is what the number turned out to be."

- As mentioned in the April SWAC meeting, URS Consulting will be contacting facility owners about "clean-up materials, average daily cover, and other beneficial uses at your operations, and how those are applied," Mr. Hoglund said. Beneficial use materials are evolving within the industry, he explained, and Metro is looking at how to regulate these materials.

### **III. Interim Waste Reduction Plan Feedback.....Janet Matthews**

Ms. Matthews noted that some of the members present had missed the April meeting, but said that “the minutes nicely reflect the summary / overview that I gave on the Interim Waste Reduction Plan” She directed attention to the agenda packet attachment requesting comments on certain aspects of the Plan. These aspects certainly do not bar comments or concerns about other areas of the Plan, Ms. Matthews pointed out. “This group is never shy about making comments... and I encourage that,” she said. Today’s agenda item is devoted to hearing comments thus far rather than to make a presentation on the material. A show of hands from members who have read the Plan and/or taken the online survey revealed only a small number. The comment period for the Plan closes June 5, Ms. Matthews said. “You are all leaders in the solid waste field in this region, and we are really relying on you to provide us with the kinds of comments that will make a good plan better.” She urged members who have not yet taken the survey or looked at the Plan to please do so.

A revised Plan will be forwarded to DEQ and Metro Council for approval in July or August. By early 2007 – if Disposal System Planning is completed, the Waste Reduction Plan will be integrated into the Regional Solid Waste Management Plan (RSWMP).

Comments from SWAC members:

Dave White said that he hasn’t read the Plan as thoroughly as he’d planned, but he finds the format itself very readable. The Plan has a strong regional focus, he noted, which requires funding on a local level. He questioned whether the “regional values” were developed by Metro Council for the region, or is it a value system “arrived at through cooperation and information with local elected officials?” Mr. White stressed that this Plan – and the full RSWMP – should be presented to local councils for their approval.

Citizen representative Dave Garten commented that the Plan focuses primarily on a three-year period of activity when “we’re going to work like hell to get from 59 to 64%. That last five percent is a ton of work.” Yet the Plan is supposed to cover a 10-year period, he said. The bigger concern for him, Mr. Garten continued, is that while the fact that waste generation and disposal numbers are going up is talked about, it’s not dealt with. In addition, there are no specific goals or numbers relating to hazardous waste. Mr. Garten is also concerned that no quantitative goals are laid out for product stewardship. Simply shifting responsibility translates to regulation, and is not necessarily as effective as providing incentives, he concluded.

From the City of Gresham, Matt Korot informed the group that local governments have worked hard on this plan with Metro, so they do feel represented (referring to Mr. White’s concern). He added that while elected officials from local governments have not been directly involved, the Plan thus far does a reasonably good job of reflecting the values of their communities. Continuing, Mr. Korot said that the issue of product stewardship is called out in this Plan as a major initiative, which is a first. “I personally think it’s the only initiative that has a possibility to work on waste generation.” There is a lot of work to be done, he said. The education components are still important for getting the message out to the masses, Mr. Korot added, “but alone, we’ve seen that it’s not effective in affecting generation.”

Clark County’s Anita Largent said she agrees that community values are represented. Also, waste generation needs to be a focus beyond just product stewardship. She hopes the Plan can help influence consumer habits.

Ms. Malloch commented that commingling has resulted in a lot of waste going directly to the landfills rather than being properly sorted and recovered. This issue needs to be addressed further, she said. In addition, Ms. Malloch would like to see a stronger focus on projects than on the education component.

The Plan is very nicely done, said Mr. Badrick. “I’m a very impatient person, so I’m thinking, aren’t we done yet? Let’s get to work on the Plan instead of talking about the Plan – but I know how hard it is to do that.” He said the Plan is a good reflection of his own day-to-day job. There are no answers or measures to some of the issues, “you just play it by ear and roll with it every day.” Putting together a

Plan that will answer everyone's concerns would be impossible, Mr. Badrick said, and this draft is good. He'd like to see the Plan go forward.

Clackamas County's Rick Winterhalter reiterated that local governments have spent hundreds of hours working with Metro on the Plan. He's particularly pleased to see the sustainability piece featured prominently.

Bruce Walker of the City of Portland said that the way Ms. Matthews explained the Plan at the April meeting was extremely helpful to him. He'd like to see that kind of presentation become a model for future activities because it laid out what the goal and benefits are. The key challenge is waste generation, Mr. Walker admitted. "Even if we do a better job, we're never going to catch up in terms of recycling if the consumption continues to grow," he said. A logical tie-in would be to look at product stewardship and public outreach/education. Metro has been a strong supporter of electronic waste legislation. "I'd really push for that on a statewide and national forum. That's where it needs to be addressed," Mr. Walker continued. While he understands the push toward 2009, he'd like to see the Plan focus even further out. Concluding, Mr. Walker said that he applauds the efforts of the Plan as a template for the region to do more and better work in the future.

Gresham Sanitary's Mike Miller said that he appreciates the education focus and work with local schools. Metro's previous and ongoing work at schools is commendable; he would like to see that effort extended more strongly into secondary schools. There is a very real disconnect at that age, so it would be a valuable time to reintroduce those earlier lessons.

Adam Winston of Waste Management has only looked through the Plan briefly, but said he'd like to see local government roles spelled out more. "There are some elements of this plan that – quite frankly – are dealt with by local governments, and at least at this time, not by Metro," Mr. Winston stated. Page 14 mentions cart systems as a way to help increase recovery, but that is strictly a local issue, he said. Page 17, Mr. Winston continued, deals with rate regulation which, again, is a local issue. If the Plan is something that local governments agree with, "it needs to be referenced with that," he said. Ms. Matthews pointed out the Roles and Responsibilities portion of the Plan does identify these concerns, but staff will look at this issue again to be sure it's clear. Councilor Park added that the language used in the Plan is consistent with other areas of the Agency, such as land use, transportation planning, etc. "There are things that Metro lays out that don't get into specifically who does it," he explained.

On a side note, Councilor Park brought up the subject of waste reduction per capita. "We're increasing the recycling rate, but we're still [also] increasing the amount we're disposing because we have a growing population base." Steve Apotheker informed the group that per capita disposal in the Metro region has increased 7% over the last nine years. Ms. Pickerell pointed out that the DEQ has statewide recovery goals as well as statewide generation goals. "We're not coming close to meeting our statewide generation goals. Those are both per capita and over all." The DEQ is breaking down numbers for households, construction and other sections and materials, Mr. Apotheker added.

Citizen member Lori Stole said that she was unprepared to comment on Plan specifics, but feels overall that the discussion needs to be reframed. "Instead of looking at how much can be recycled, or how much is being recycled, we need to approach it from the other end and look at what our target amount of waste is. For sustainability long-term, it really needs to be zero. We need to figure out how to repackage the system so there isn't waste," she stressed. "If you know that zero waste is the goal, you really think about what you're throwing out." Ms. Stole will be looking at the Plan specifics from that aspect, she said. She'd like to look at ways, for instance, to address disposable products.

Ms. Herrigel simply thanked Ms. Matthews and Metro staff for all the work put into the Plan thus far, "and for all the opportunities they've given us all – local governments as well as SWAC and the community at large – to give comments." She made a commitment to read the Plan and get specific comments to Ms. Matthews by the deadline.

No other members had comments regarding the Plan at this time. Councilor Park gave the audience an opportunity for comments, as well; there were none.

#### **IV. Disposal System Planning Project..... Mike Hoglund**

Councilor Park introduced this item and commended staff for the hard work and energy they've done thus far. "Some hard decisions are going to have to be made as we get to the next steps," he said.

Mr. Hoglund handed out a sheet of "tentative milestone dates" to the attendees, and a list of stakeholders who have provided input to the project (both attached). He gave some background on the project, noting that while it had gotten off to a slow start, momentum has picked up considerably with the hiring of consultant Dan Pitzler of CH2M Hill. Mr. Hoglund said he hopes to maintain that pace. Mr. Pitzler and EcoData's Barbara Stephens have provided crucial help with framing the questions and, "in particular, putting some of the economics of the system together," Mr. Hoglund reported. Three alternatives are being looked into for the solid waste system: All publicly owned, all privately owned, and the current hybrid model, with some variation. Using evaluation criteria supplied by Metro Council, the consultant compared the three models and has given Metro a 100-page draft report, Mr. Hoglund continued. After any needed changes are made to the draft, the report will be presented to Council and SWAC.

The tentative timeline shows the fastest track on which the DSP issue could be resolved, Mr. Hoglund said. The main question being considered is whether or not Metro should stay in the transfer station business. Council will discuss the report at their June 20 work session from approximately 3:30-5 pm. Mr. Pitzler will be at the table, and Mr. Hoglund said selected stakeholders may be invited to participate, as well.

Two transfer station owners (Pride and Allied) "have been putting their own alternative [recommendation] together on the private and hybrid model that's a little bit different than what the consultant's model is," Mr. Hoglund added. He's asked them to submit those soon to present as an addendum to the consultant's report.

Staff will ask Council for about an hour at the July 11 work session for the Councilors to give direction to staff about what they would like to see in a final recommendation. A Resolution should be released to the public in mid-August, looking towards a public hearing sometime around September 14. From that, Council will deliberate and make a decision.

Mr. Hoglund explained that the second document he had handed out shows those who've provided input (often one-on-one interviews) to the DSP project thus far. Council suggested adding MRFs (both clean and dirty) and perhaps some rate payers (such as SWAC's rate payer members), as well.

Metro attorney Marv Fjordbeck recently presented information to the Council regarding legal aspects of the DSP project, Mr. Hoglund continued. For instance, what are the limitations on the use of proceeds if any of Metro's solid waste facilities are sold, i.e., would proceeds legally have to be used for solid waste-related activities? Yes, Mr. Hoglund informed the group, under Oregon Statute 459335 and the Metro Charter.

Another legal question regards Metro's disposal contract with Waste Management, which stipulates sending providing them "a minimum of 90% of the total tons of acceptable waste that Metro delivers to any general-purpose landfill during the calendar year." Mr. Hoglund noted that if Metro no longer owned the transfer stations, that contract would still be valid. If Metro sold their facilities, they would have to set up a regulatory framework of oversight of waste in the system that would then have to be delivered to Waste Management. Counsel feels that would be difficult to do. It might be possible to negotiate an end to that contract, however.

Metro is paying back bonds from the construction of the transfer stations, and has to have 110% revenue over expenditures to meet the bond requirements, Mr. Hoglund reminded SWAC members. If the stations are sold, or the bonds otherwise paid off, there would be more contract flexibility, such as variable tonnage contracts. However, Councilor Park added that if the bonds are paid off early, it may affect the rate structure prematurely.

**V. Other Business and Adjourn..... Councilor Park**

Mr. Badrick announced that he attended a national conference in Seattle a few weeks ago (“Clean Med”). At that event, he was privileged to accept an award on behalf of Legacy Health Systems. Other winners included Providence, Kaiser, and OHSU – all four of Oregon’s major healthcare systems won awards for environmental management and recycling. “So we talk a lot about not quite reaching 64% [recovery], but compared to what I’m hearing from hospitals across the country, we’re way ahead,” Mr. Badrick stressed. Councilor Park suggested he bring the award and that information before Council. They’d be very interested in the comparisons to other regions, the Councilor said.

Mr. Walker informed the meeting that the City of Portland will be increasing their rates 4.8%; Mr. Winterhalter said that Clackamas County is raising their per-can rates well.

Councilor Park adjourned the meeting at 11:35 a.m.

Next meeting:  
Thursday, July 27, 2006  
Room 370 A/B

**JUNE MEETING CANCELED**

gbc  
Attachments  
M:\rem\od\projects\SWAC\Agenda\_Minutes\2006\SWAC052506min.doc



## Disposal Charge at Metro Transfer Stations

Effective September 1, 2006 - August 31, 2007

The disposal charge for municipal solid waste at Metro transfer stations is comprised of two parts: A fixed charge ("transaction fee") for each use of the transfer station, and a variable charge ("tip fee") based on the amount of solid waste delivered for disposal. The components of these fees recover the cost of various programs and services.

	<u>Current</u>	<u>FY 06-07</u>	<u>Change</u>
<b>Transaction Fee</b>	<b>\$7.50</b>	<b>\$8.50 / \$3.00</b>	<b>+1.00 / (4.50)</b>
<i>Recovers the cost of scalehouse operations and capital expenses at the transfer stations. Users of the automated scales pay a reduced amount of the cost for scalehouse staffing.</i>			
<b>Metro Tip Fee (by component)</b>			
<b><i>Disposal Charges</i></b>			
Renewal & Replacement <i>Recovers the cost of contribution to the capital sinking fund.</i>	1.10	1.10	- 0 -
Transfer, Transport & Disposal <i>Recovers the cost of transfer, transport &amp; disposal (BFI/Allied, CSU &amp; OWS contracts)</i>	<u>45.70</u>	<u>45.10</u>	<u>(0.60)</u>
<b><i>Subtotal, Disposal Charges</i></b>	<b>\$46.80</b>	<b>\$46.20</b>	<b>(0.60)</b>
<b><i>Fees &amp; Taxes</i></b>			
Regional System Fee <i>Recovers cost of Metro's regional solid waste services &amp; programs (excludes cost of MSW disposal operations)</i>	14.54	13.57	(0.97)
Metro Excise Tax <i>Contributes toward Metro general government costs, regional parks &amp; tourism development.</i>	8.33	8.35	+ 0.02
DEQ Fees <i>Promotion fee, orphan site fund, etc. collected on behalf of Oregon State Department of Environmental Quality.</i>	1.24	1.24	- 0 -
Community Enhancement Fee <i>Collected on behalf of communities that host the transfer stations.</i>	<u>0.50</u>	<u>0.50</u>	<u>- 0 -</u>
<b><i>Subtotal, Fees &amp; Taxes</i></b>	<b>\$24.61</b>	<b>\$23.66</b>	<b>(0.95)</b>
<b>TOTAL, METRO TIP FEE</b>	<b>\$71.41</b>	<b>\$69.86</b>	<b>(1.55)</b>
MINIMUM LOAD CHARGE (240 lbs. or less)	\$17	\$17	- 0 -

**Notes: Disposal Charges at Metro Transfer Stations**

Metro's transaction fee and tip fee are charged to Metro transfer station users only. Other facilities may charge different rates.

The Regional System Fee and Metro Excise Tax are charged on all solid waste that is generated in the region, regardless of the disposal site.

DEQ imposes its fees (totaling \$1.24) on waste delivered to all DEQ-permitted disposal sites. The host fee (community enhancement), currently 50¢ per ton at Metro's transfer stations, is a local option.

Loads that weigh 240 pounds or less are charged a flat rate of \$17 (\$8.50 tonnage charge + \$8.50 transaction fee.)

The Regional System Fee recovers the cost of waste reduction, hazardous waste, illegal dumpsite monitoring & cleanup, enforcement, latex paint recycling, Recycling Information Center hotline, etc. It excludes costs of MSW disposal operations.

## **List of Stakeholders Who Provided Input to the Disposal Systems Planning Project**

1. Metro Council
  - David Bragdon
  - Rod Park
  - Carl Hosticka
  - Brian Newman
  - Susan McLain
  - Rex Burkholder
  - Robert Liberty
2. COO/Staff
  - From Metro staff workshop on 11/10/05
3. Local Gov.
  - Rob Guttridge, Waste Reduction Specialist, Clark County
  - Jack Hanna, Code Enforcement, City of Troutdale
  - JoAnn Herrigel, Community Services Director, City of Milwaukie
  - Scott Keller, Auxiliary Services Program Manager, City of Beaverton
  - Leslie Kochan, Waste Reduction Specialist, Oregon DEQ
  - Matt Korot, Recycling & SW Program Manager, City of Gresham
  - Anita Largent, Solid Waste Manager, Clark County Government
  - Sally Puent, Manager SW/NW Region Environmental Partnership, Oregon DEQ NW Region
  - Ken Spiegle, Community Environment Manager, Clackamas County
  - Patricia Vernon, Oregon DEQ
  - Bruce Walker, Solid Waste & Recycling Program Manager, City of Portland OSD
  - Robert Weeks, Interim Solid Waste Manager, Washington County
  - Rick Winterhalter, Waste Reduction Coordinator, Clackamas County
  - Alice Norris, Mayor, Oregon City
  - Larry Patterson, City Manager, Oregon City
  - Judge Laura Pryor, Gilliam County
4. Private Facility Owners/Ops
  - Mike Leichner, Pride Disposal
  - Adam Winston, Waste Management
  - Mike Dewey, Waste Management
  - Will Spear, Waste Management
  - Dean Spady, Allied
  - Ray Phelps, Allied
  - Todd Irvine, Allied

- Eric Merrill, Waste Connections
- Dean Large, Waste Connections

5. Independent Commercial Haulers

- John Romero, West Slope Garbage Service
- Randy Burbach, Flannery's Drop Box Service
- Dave McMahon, Cloudburst Recycling
- Jack Deines, Deines Brothers Disposal
- Dave Cargni, Portland Disposal & Recycling
- Steve Borgens, Portland Disposal & Recycling
- Mike Borg, Oak Grove Disposal Company
- David White, Oregon Refuse and Recycling Association

6. Business Self-haul Customers / Self-haul Customers

- 314 customers participated in gatehouse survey

7. General Public - Participated in "Let's Talk Trash" public outreach program

## **Disposal System Planning**

Tentative Milestone Dates

Draft Consultant Report from CH2M	May 24, 2006
<b>Presentation of Consultants Final Report to the Metro Council and Stakeholders with Facilitated Discussion (Joint with SWAC?)</b>	<b>June 20, 2006</b>
Presentation of Report to SWAC – Tentative	June 22, 2006
<b>Metro Council Discussion of Report</b>	<b>July 11, 2006</b>
Public Release of Resolution for Incorporating COO Recommendation and Beginning of 30-day Public Comment Period	August 15, 2006
<b>Public Hearing on Resolution before Metro Council</b>	<b>September 14, 2006</b>

*Note: This schedule does not include anticipated contacts with MPAC and local governments.*

---

*Final Report*

# Metro Transfer System Ownership Study

Prepared for



**METRO**  
PEOPLE PLACES • OPEN SPACES

June 2006

Prepared by

**CH2MHILL**

CH2M HILL  
P.O. Box 91500  
Bellevue, WA 98004

In association with ECODATA, Inc.

# Executive Summary

---

## Background

The Disposal System Planning Project (DSP) is a component of the Regional Solid Waste Management Plan update. The project will be completed in two phases. Phase 1 began in 2005. Phase 2 is expected to begin in FY 2006-07. The primary purpose of Phase 1 is to answer the question: *What is the best way to deliver safe, environmentally sound and cost-effective disposal services to this region?* An important component of this question is Metro's role in the disposal system. The primary purpose of Phase 2 will be to implement the decisions of Phase 1.

Over time, the private solid waste industry has become more concentrated, both nationally and locally. Since 1998, Metro has recognized the public and political interests in relaxing its role as the primary provider of services, and has begun to franchise limited private transfer operations throughout the region for commercial haulers. Given growing pressure from transfer station interests within the industry to accelerate the pace of private facility authorizations, this project will take a step back and take a comprehensive look at what is the best course for the region as a whole for the long-run.

## Project Purpose

The purpose of this transfer system ownership study is *to analyze different transfer station ownership options to provide information for the Metro Council to decide what Metro's role should be in the disposal system.* The analysis has four essential elements:

1. The project team worked with the Council and various stakeholders to identify the criteria to be used for evaluating the quality of the disposal system—cost, material recovery, equity, flexibility, etc.
2. The project team worked with stakeholders to construct different ownership options that address the transfer component of the regional solid waste system. Options investigated include public ownership of all transfer facilities, mixed public and private ownership, and a totally privately owned system.
3. The ownership options were analyzed against the performance criteria listed above.
4. Finally, the Metro Council will make a decision. A choice, for example, of a totally private system implies that Metro should ultimately exit the disposal business. The choice of a mixed public-private system, on the other hand, implies that Metro should remain in the business. The choice of a public system implies an increased role for Metro in the provision of transfer system services.

## Approach

The choice of system ownership option is dependent upon a number of factors that relate to the ultimate objectives and values of the region's residents, businesses, and industry stakeholders. The Metro Council is responsible for making decisions about the transfer system that best meet these objectives and values. It is important to consider the environmental, social, and financial aspects of different system ownership options, and to be aware of risks that may need to be managed should changes to the current system be implemented. Thus, the analysis of different system ownership options was conducted from the following perspectives:

- Documentation and consideration of stakeholder input
- Analysis of Metro solid waste system economics
- Definition of system options
- Value Modeling of non-monetary aspects of system options
- Economic analysis of system options
- Risk Assessment of system options

## Results and Conclusions

### Competition in the Metro Disposal System

The Metro disposal system can be viewed as a series of inter-related elements: collection, transfer/processing, transportation, and disposal (waste reduction, recycling, and source-separated processing are not typically considered to be part of the disposal system). Economic theory and the results of the analysis of the system suggest the following conclusions about competition in the Metro disposal system:

- **Collection:** Commercial collection in the City of Portland is arranged by subscription i.e., multiple firms compete for business in a competitive market. Residential collection, and commercial collection outside the City of Portland, is provided under a system of exclusive franchises. Thus, there is no competition for the majority of collection services in the Metro region.

It is estimated that collection accounts for 81 percent of the total cost of residential disposal, and a very high percentage of the total cost of commercial disposal. As a result, the greatest opportunity to inject competition into the Metro disposal system is in collection, which is the responsibility of local government and outside the control of Metro.

- **Transfer/processing:** A fundamental fact about transfer stations is that there is little competition in the provision of transfer/processing services regardless of whether these services are provided by the public or private sector. This occurs for a number of reasons. First, it is only economic to deliver waste to a facility relatively close to the collection route resulting in a type of "natural geographic monopoly". Second, collection firms that are vertically integrated (i.e., they own transfer stations and/or landfills) gain an additional margin of profit by delivering waste to a station they own: it often makes economic sense for such firms to drive past a transfer station they don't own and



continue on to deliver waste at a station they do own. Finally, transfer and processing per-ton costs decline as more tons are received; this results in a seeming paradox in which prices paid for transfer can *increase* as more transfer stations are put in place.

Metro injects one important element of competition into the transfer/processing market in the region by bidding out the operation of their stations. This helps lower the total cost of disposal for local governments that use the Metro transfer rate as a benchmark for establishing the disposal component of the collection rates charged by the franchised collection firms they regulate.

- **Transportation:** Transportation of waste from a transfer/processing facility to a disposal facility is generally done at competitive market prices. There are few barriers to entry and many trucking firms willing to compete for this business. Barge and rail transport also have the potential to be competitive with trucking for transportation of waste from Metro to distant landfills.
- **Disposal:** At least 90 percent of the wet waste in the region is disposed of at a Waste Management landfill under the terms of a contract that was procured years ago using a competitive process in a market with few options for disposal. The price paid by Metro is equal to or lower than that paid by other jurisdictions in the Pacific Northwest that have long-term contracts for disposal at regional landfills. Today, however, there are multiple firms with regional landfills that would be interested in providing disposal services to Metro. It is possible that the disposal price paid by Metro is higher than the price it would pay in a competitive market for disposal, or if its disposal contract were re-bid. Metro is legally bound to this contract through 2014, and the contractor can extend the contract until 2019. After this contract expires, it is possible that Metro would realize a reduction in the price paid for disposal.

## Metro as Regulator and Competitor

During the conversations with stakeholders conducted as part of this project, one concern expressed by private transfer station operators is that Metro is both their regulator and a competitor. This concern exists for a couple of reasons. First, as tons flow to private facilities rather than a Metro-owned facility, Metro's per-ton cost of transfer increases. The transfer station operators believe that this provides an incentive for Metro to limit the amount of wet waste delivered to the private stations thus limiting private sector growth and revenue-generating potential. Second, Metro establishes fees and taxes that must be paid by private facility owners: some private facility owners feel that those fees and taxes are too high. They particularly dislike paying for Metro general government and paying for certain services and costs associated with the Metro transfer stations.

A very different perspective is held by the independent collection firms that were interviewed. They were of the unanimous opinion that there should be no private wet waste transfer stations in the region: their interests would be best served by a system in which Metro owns all transfer stations *and* disposal facilities. This is mainly because vertically integrated firms that provide collection and transfer and/or disposal services have a competitive advantage over firms that provide only collection services. The vertically integrated firms are both competitors and service providers to smaller independent firms. It is safe to conclude that continued Metro ownership of transfer stations will result in a

collection market that includes more small independent collection companies than would be the case if Metro did not own any transfer stations.

The independent dry waste processing facility owners interviewed felt the Metro should continue to both own and regulate facilities.

Surveys of both commercial and self-haul customers (households and businesses) indicated a high degree of satisfaction with the level of service provided by Metro. When asked where they would take waste should the Metro station they were using close, the majority of self-haul customers said they would use the other Metro facility or had no idea where they would go.

## **Metro Disposal System Economics**

The analysis of the economics of the Metro solid waste system results in the following conclusions and recommendations:

- The greatest potential for cost savings is in collection; which is outside Metro's control.
- Metro rates are used in setting collection fees, which is good, particularly when Metro competitively procures transfer station operation services. This injects an important element of competition in a market that otherwise would not have many characteristics of a competitive market. Therefore, Metro should try to maximize competition in contracting for each of these services. For example, it could consider evaluating price as a function of distance in its disposal contract, or perhaps jointly procuring transfer, transport, and disposal or transport and disposal.
- In recent years, national solid waste firms have increased market share in the local solid waste industry. These firms seek to achieve vertical integration to maximize profits. Without measured steps by Metro and/or local government to preserve competition, vertical integration, profitability, and prices are likely to increase in the Metro region.
- Economies of scale are significant in transfer, thus, adding transfer stations increases per-ton costs. Also, handling small loads increase per-ton costs compared to handling large loads. Therefore, Metro should be careful to not allow too much excess capacity in the region's transfer system: adding stations reduces throughput at existing facilities and thereby, other things equal, increases the cost of transfer.
- Significant unused transfer capacity exists in the region.
- Transfer is the smallest cost component of the transport, transfer, and disposal system.
- On average, Metro transports waste to landfills a greater distances than does the private sector.
- The private sector typically earns its highest profit margins on disposal.

## **Evaluation of Different Ownership Options**

The advantages and disadvantages of private, public, or a hybrid public-private ownership of the Metro region transfer system were analyzed from a variety of perspectives, including:

- An analysis of how well each option met the Metro Council's stated values
- The estimated cost of each option
- The risk associated with each option

A variety of methods including in-person interviews, surveys, and focus groups were used to elicit the opinions of key stakeholders such as private facility owners, independent waste collection firms, independent dry waste facility owners, local government representatives, Metro staff members, and Metro transfer station users. The opinions of stakeholders were used to help define the system options and analyze the performance of the options in meeting Council objectives.

A brief summary of the results of the value modeling, economic analysis, and risk assessment follow.

### Value Modeling

The Metro Council outlined the following values associated with the disposal system:

1. Protect public investment in solid waste system
2. "Pay to Play"- Ensure participants pay fees/taxes
3. Environmental Sustainability- ensures system performs in an sustainable manner
4. Preserve public access to disposal options (location/hours)
5. Ensure regional equity- equitable distribution of disposal options
6. Maintain funding source for Metro general government
7. Ensure reasonable/affordable rates

These values were reworded slightly to facilitate analysis. One value (ensure reasonable/affordable rates) was captured in the economic analysis, and one additional value was added: Ensuring support from system participants.

The results of the value modeling analysis indicate that the public system is clearly preferred to the other ownership options. The results of a sensitivity analysis of the relative importance of each Council value indicate that this result is not sensitive to the relative importance assigned to each value.

One additional sensitivity analysis was performed that incorporated challenges associated with implementation. That analysis showed that as more importance is placed on the difficulties associated with acquiring existing private transfer stations, the hybrid system eventually becomes preferred to the public system.

### Economic Analysis

The cost of the three systems is not likely to have a large impact on the cost of the Metro solid waste system. Regardless of the option selected, costs are not expected to increase or decrease by more than about two percent. Other findings of the economic analysis include:

- The hybrid is the only option with the potential to reduce system costs.
- Both the public and the private options are projected to increase system costs (i.e., collection, transfer, transportation and disposal). The cost increase for the public option is estimated at 0.1% to 0.7% and the increase for the private option is estimated at 1.4% to 2.2%.

- The largest cost impacts occur in the collection market; although Metro does not control collection, collection costs can be affected by Metro's actions.
- Increasing the number of transfer stations tends to increase the cost of transfer, but these increases can be more than offset by decreases in collection costs.
- These cost estimates depend on a series of assumptions that are of course subject to variance; while different assumptions would result in different cost estimates, it is not likely that the relative ranking of the options would change.
- The key impact of the Private option is the likely further concentration of the collection industry, increased vertical integration, a probable reduction in the number of small independent collection firms, and probable cost-plus price creep.

### Risk Assessment

There is considerable uncertainty at this time about exactly how any of the system options would be implemented and exactly how aspects of the system would develop through time. When considering major new programs or system changes, it is important that organizations such as Metro evaluate the risk associated with such changes by identifying, assessing, and develop strategies to manage those risks.

Risks were identified by the project team during a brainstorming exercise during which 10 risks and 6 related uncertainties were identified that may be relevant to the choice of ownership option. Once identified, a qualitative assessment of these risks was performed. The assessment was done using a qualitative risk signature approach in which the signature for each risk was determined by first assessing the likelihood and impact for each risk, then using a risk matrix to determine if the risk is low, medium, high, or critical.

The assessment of risks is shown in Exhibit E-1. The results of the assessment indicate that there is more risk associated with implementing the private system than the public or hybrid system. However, the only risk scored as critical is challenges associated with implementation in the public system. The hybrid system has relatively low risk.

**EXHIBIT E-1**  
**Risk Assessment**

Risk	Risk Signature		
	Private	Public	Hybrid
1. More difficult politically to collect regional system fee and excise taxes	High	Low	Low
2. Metro's credit rating could worsen if it is perceived to be less able to collect taxes	High	Low	Low
3. It could be more costly and more difficult administratively for Metro to respond to future changes in state-mandated Waste Reduction requirements	High	Low	Low
4. It could be more costly and more difficult administratively for Metro to deliver new WR/R initiatives	High	Low	Low
5. Potential increase in vertical integration and potential resulting increases in transfer station tip fees	High	Low	Low
6. Reduced ability to meet dry waste recovery targets	Medium	Low	Low
7. Additional cost to Metro of fulfilling Disposal contract	Medium	Low	Low
8. Inability or added cost to maintain current level of self-haul and HHW service	Medium	Low	Low
9. Likelihood of successful flow control challenge	High	Low	Low
10. Political challenges or protracted legal proceedings resulting from condemning private transfer stations or allowing wet waste franchises to expire	Medium	Critical	Low

### Summary of Results

A summary of the results of the value modeling, economic analysis, and risk assessment are shown in Exhibit E-2. The results for each option are as follows:

- The private option has the lowest value score, has the highest projected cost increase, and the most risks that would need to be managed.
- The public option has the highest value score, small projected cost increases, and one critical risk that would need to be managed.
- The hybrid system has a value score between the two other options, neutral or possibly decreased cost, and no significant risk.

**EXHIBIT E-2**  
Summary of Results

	<b>Private</b>	<b>Public</b>	<b>Hybrid</b>
Values – Results of value modeling analysis. Normalized scores where the best score =1, worst score =0.	0.35	0.62	0.49
Cost – Estimated long-run percent change in system cost (i.e., collection, transfer, transport, disposal).	Low: 1.4% High: 2.2%	Low: 0.1% High: 0.7%	Low: -0.5% High: 0.1%
Risk – 10 measured risk signatures that incorporate likelihood and criticality. Each risk rated low, medium, high, or critical.	6 High 4 Medium	1 Critical 9 Low	10 Low



**DRAFT**

# Interim Waste Reduction Plan

**Regional  
Solid Waste  
Management Plan  
Update Project**

**July 2006**

*Solid Waste & Recycling Department*  
600 NE Grand Ave  
Portland, OR 97232  
Phone (503) 797-1650  
Fax (503) 797-1795



**METRO**  
PEOPLE PLACES • OPEN SPACES

[www.metro-region.org](http://www.metro-region.org)

# Contents

## Executive summary

## Chapter I. Introduction

Plan purpose.....	4
Planning process .....	4
Public involvement.....	4
Plan organization .....	5

## Chapter II. Regional waste reduction performance

Current waste reduction system .....	6
Current roles and responsibilities.....	9
Material recovery and disposal trends.....	9
Future trends and goals .....	11

## Chapter III. Guiding direction

Plan vision .....	15
Regional values .....	15
Waste reduction policies .....	15

## Chapter IV. Program areas

Waste reduction.....	16
Education services.....	24
Hazardous waste management .....	26
Product stewardship .....	29

## Chapter V. Plan implementation

Overview .....	31
Annual work plan .....	31
Plan performance.....	32
Alternative programs .....	32
Compliance and enforcement.....	32
Plan revisions .....	33

## Tables

Table 1. Composition of disposed waste by tons .....	11
Table 2. Population and waste generation growth assumptions .....	12
Table 3. Projected regional performance - base case vs. achieving recovery goal.....	12
Table 4. Projected regional performance - achieving goal vs. achieving goal plus constant waste generation growth .....	12
Table 5. Tons needed to achieve the 64% goal.....	14

## Figures

Figure 1. Region's waste reduction rate .....	1
Figure 2. Amounts recovered by generator source .....	7
Figure 3. Recycling and disposal by percent.....	9
Figure 4. Historic disposal tonnages .....	10
Figure 5. Waste disposed by source.....	10
Figure 6. Composition of disposed waste .....	11
Figure 7. Waste disposed and recovered - base case .....	13
Figure 8. Waste disposed and recovered - achieve goal .....	13

## Map

Recovery and solid waste facilities.....	8
--	---

## Appendices

Appendix A. Goals and objectives of the interim waste reduction plan	
Appendix B. Key solid waste laws	
Appendix C. Local government compliance with state recycling requirements	
Appendix D. Alternative programs - application and approval process	
Appendix E. Interim waste reduction plan, draft timetable	
Appendix E. Metro and local government - annual waste reduction plan schedule	
Appendix G. Glossary of terms	



# Executive summary

A strong environmental ethic in the Portland metropolitan region has fueled ambitious waste reduction goals and effective programs, making this region a national leader. Over the past 20 years, the waste reduction rate\* increased from 26% to 59% (see Figure 1). The goal ahead is to achieve a 64% rate by the end of 2009, an increase of five percentage points over the current rate, or approximately 400,000 additional tons of material diverted from disposal. This Plan is the region's blueprint for achieving that milestone goal, but it is also intended to accomplish much more. The desire to achieve a sustainable use of natural resources in this age, preserving resources for future generations, is at the heart of the guiding framework and every program area contained in the Plan. The Plan identifies significant policy, system, and behavioral changes needed to reverse the current context.

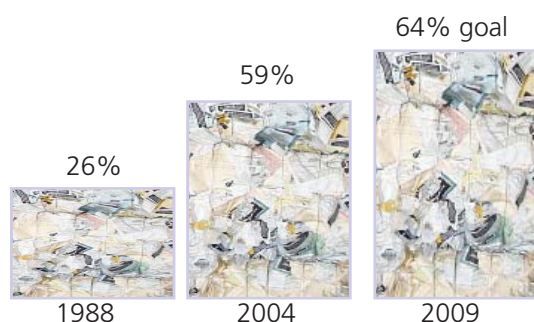
## Context of the times

Among the impediments to the sustainable use of natural resources in the region are the following, which this plan seeks to address.

### Waste generation is increasing.

The sum total of waste generated for recycling as well as disposal continues to increase. On a per person basis, the region's "waste generation rate" rose from 1.26 tons in 1994 to 1.72 tons in 2004 – a 37% increase, or over 3% per year – outpacing the rate of population growth. With significant population growth and good economic times, the generation rate historically trends up due to increased commercial activity. The challenge is to instill greater awareness and implementation of effective waste prevention activities in the residential, commercial, and industrial sectors. Reducing waste generation pays off with reduced material consumption as well as reduced energy, air and water impacts. This Plan is intended to contribute to dampening the rate at which waste is generated in the region.

**Figure 1. Region's waste reduction rate**



### Recyclable resources are disposed.

Despite this region's high recovery rate, many resources that can easily be recycled are still disposed. Enough waste from this region is landfilled each year to fill a football field 100 stories high. Fully one-third of that disposed material is paper, wood, metal, glass, plastic and organics (food and yard waste) that could be recovered through existing programs. This Plan is intended to achieve greater progress toward ensuring these material resources are not wasted.

### Toxics impact the environment.

Volumes of household hazardous waste continue to climb, and only a portion of the total generated by households each year is separated and collected for recycling or safe disposal. The high cost of dealing with this waste stream, plus the risks posed to human health and the environment, make this a compelling issue to address. By making people aware of alternatives to hazardous products for homes and gardens, and by giving them good reasons to use those alternatives, the amount of hazardous waste entering the environment, and the disposal system, can be substantially reduced. This Plan is intended to ensure continued sound management of household hazardous waste while bringing expanded emphasis to the promotion of safe and effective product alternatives.

### The system is managed end-of-pipe.

A confluence of factors – growing fiscal constraints on public sector activities, rising amounts of total waste and increasing quantities of difficult-to-recycle waste – have motivated support for a more upstream-oriented approach to managing waste. Over the past decade, Europe and Canada enacted "product stewardship" policies that require manufacturers to share responsibility for managing certain products at their end-of-life; examples include tires, electronics, pesticides, beverage containers and other packaging. Making that policy shift could have significant results - more equitably shared costs, and products that are better designed (i.e., less toxic), more durable and

\*Throughout this Plan "waste reduction" refers to both the "prevention" of waste (e.g., reuse, backyard composting) as well as "recovery" (e.g., recycling, composting and energy recovery). The region's annual "waste reduction rate," calculated by the Department of Environmental Quality (DEQ), combines credits for waste prevention programs as well as tons recovered from all waste generated. For 2004, the region's waste reduction rate was 59% (53% recovery plus 6% waste prevention credits).

more readily recyclable. This Plan is intended to support policies and practices consistent with shared responsibility addressed in the Plan vision statement.

## **Vision of the future**

This Plan's vision is of a significant shift from today's "end of pipe" waste management practices to a future where resources are managed more efficiently for current and future generations, and responsibility for this is shared among producers, consumers, and government.

To achieve this vision, the Plan will build on progress achieved to date, and address impediments to resource conservation through activities that:

- prevent waste from being created in the first place,
- encourage more recycling and composting,
- promote alternatives to toxic products,
- require manufacturers to take more responsibility for the products they sell, and
- create awareness and support of the above through effective educational programs.

## **Plan contents**

The Plan's first two chapters contain information on the process used to develop the Plan, including public involvement; the current waste reduction system; and material recovery and disposal trends. Chapter III lays out the Plan's long-term vision, as well as the regional values and waste reduction policies that will guide activities over the duration of this Plan.

Chapter IV presents the goals and objectives that will guide the key program areas – waste reduction, education services, hazardous waste management and product stewardship. Chapter V describes the framework for implementing the Plan, including annual work plans, plan performance, alternative programs, compliance and enforcement, and revisions.

## **Action plan**

The goals and general direction planned for the four program areas addressed in this Plan are summarized below. (Complete text may be found in Chapter IV or Appendix A.)

### **1. Waste reduction**

*Goal: Increase the sustainable use of natural resources by reaching a waste reduction goal of 64%.*

Objectives to reach the region's goal of 64% waste reduction by 2009 have been identified for each of the following sources of waste: single-family residential,

multi-family residential, business, building industry and commercial organics. Each of these five sources will require unique approaches and regionally coordinated efforts to provide access to services by all.

The Plan aims to increase both the quantity and quality of materials recovered from both single- and multi-family residences. The Plan places special emphasis on business and commercial sources of waste where the opportunities for improvement are greatest. Offices generate large quantities of paper; construction and demolition sites generate wood and metal; and restaurants and grocery stores generate food waste.

Customized education and outreach campaigns will encourage more voluntary involvement in recycling; however, the Plan also suggests the necessity of other measures to realize the waste reduction goal, such as requiring business and construction debris recycling throughout the region.

### **2. Education services**

*Goal: Increase the adoption of sustainable behaviors by households and businesses through increased knowledge, motivation and commitment.*

The Plan identifies information services and school education as methods of achieving this goal. Implementing objectives in these areas will require coordinated efforts among Metro, local governments, and public and private schools.

Education strategies motivate residents to take their commitment to the next level and instill in newcomers an appreciation for the region's environmental values. Special emphasis is placed on outreach efforts that help people make environmentally responsible choices.

### **3. Hazardous waste management**

*Goal: Reduce the use and improper disposal of products generating hazardous waste to protect the environment and human health.*

Management of hazardous waste is approached by this Plan in two ways: 1) reducing the amount of hazardous waste generated by reducing the use of hazardous products; and 2) collecting generated wastes properly. The goal of this program area will be reached through coordinated efforts of education and efficient, safe collection methods.

The Plan emphasizes targeted education and outreach to encourage the use of safe alternatives to hazardous products. The Plan also calls for possible disposal bans on some products that pose the most serious risks to public health or the environment.

#### 4. Product stewardship

*Goal: Shift responsibility to manufacturers, distributors, and retailers ensuring that products are designed to be nontoxic and recyclable and incorporate the cost of the product's end-of-life management in the purchase price.*

This Plan outlines the initial steps to be taken for furthering product stewardship. Product stewardship represents a change from current end-of-pipe waste management to front-end product management.

Such a significant change in approach will eventually help reduce the burden on local governments for proper waste handling and will also arguably lead to less waste, reduced toxicity and increased recyclability by having those in charge of the manufacture and consumption of products take responsibility for the proper management of those products.

#### Moving forward

Historically, the waste reduction rate has been the primary measure of progress in this Plan. Emphasis on that measure continues, as the Plan identifies policy and operational changes necessary to enable the region to divert approximately 400,000 additional tons of material from disposal and achieve the 64% waste reduction goal by 2009.

How will we get there? Increased recovery of commercially generated organics is predicated on expanded participation of large food waste generators in the City of Portland and other jurisdictions in the region, as well as the siting and operation of a food waste composting facility in the region. Increased recovery of "dry waste" material generated by the business and building industry sectors will follow the implementation of regulatory requirements by Metro and other jurisdictions, and on-going technical assistance to generators. Increased recovery of material from the multi-family residential sector is anticipated after region-wide implementation of a uniform collection system and more effective outreach targeted to those residents. Finally, increased recovery of material from the single-family residential sector will result as local jurisdictions throughout the region convert from bins to roll carts for the collection of recyclables.

#### Future goals

In addition to ambitious plans for achieving a 64% waste reduction goal by 2009, it is anticipated that a new set of performance indicators for the region will be implemented in the years ahead. Sustainability Goals for the Solid Waste System, related to solid waste facilities and collection services, will be included in the draft Regional Solid Waste Management Plan (RSWMP) update next year. Nine goals and 23 related objectives encompass air emissions, stormwater run-off, natural resource use, toxic materials, green building standards, training and education, purchasing practices, health and safety, and quality of life. This groundbreaking work was developed by a subcommittee of the Regional Solid Waste Advisory Committee (SWAC), which then recommended the measures for inclusion in the updated RSWMP.

Other measures of assessing performance in resource conservation efforts will be considered in years ahead. As the 64% benchmark-year of 2009 draws closer, Metro will launch a regional discussion on new goals for the future. New waste reduction goals beyond 64% will be considered; a goal to reduce per capita and/or total waste generation (similar to that established by the state) will also be considered after the Oregon Department of Environmental Quality stakeholder process on waste generation has concluded its work. Ways to meaningfully establish and assess other measures (e.g., toxicity reduction, energy consumption, and greenhouse gas reduction) will be discussed, and, where related to Plan activities, goals in these areas may be established.

#### A shared agenda

For the next four years, the focus is on addressing impediments to the sustainable use of natural resources by achieving the goals and objectives identified in this Plan.

Stakeholders who participated in developing this Plan will also play valued roles in its implementation. From almost 20 years of such collaborative efforts in the region, the pieces are in place to move forward, achieve greater goals than before, and continue to be a national leader in reducing the amount and toxicity of waste.