

A G E N D A

600 NORTHEAST GRAND AVENUE PORTLAND, OREGON 97232-2736



METRO

TEL 503-797-1540 FAX 503-797-1793

MEETING: METRO POLICY ADVISORY COMMITTEE

DATE: June 28, 2006

DAY: Wednesday, 5:00-7:00 p.m.

PLACE: Metro Council Chamber/Annex

NO	AGENDA ITEM	PRESENTER	ACTION	TIME
	CALL TO ORDER	Kidd		
1	SELF INTRODUCTIONS, ONE MINUTE LOCAL UPDATES & ANNOUNCEMENTS	All		5 min.
2	CITIZEN COMMUNICATIONS FOR NON-AGENDA ITEMS			2 min.
3	CONSENT AGENDA <ul style="list-style-type: none">• June 14, 2006	Kidd	Decision	3 min.
4	COUNCIL UPDATE	Hosticka	Update	5 min.
5	JPACT UPDATE	Cotugno	Update	5 min.
6	SOLID WASTE DISPOSAL SYSTEM PLANNING	Hoglund	Introduction	30 min.
7	NEW LOOK: <ul style="list-style-type: none">• Regional Forum Debrief• Neighboring City Presentation<ul style="list-style-type: none">o Canby	Kidd Melody Thompson	Recap Discussion	30 min. 30 min.

UPCOMING MEETINGS:

MPAC: July 12 & 26, 2006

MPAC Coordinating Committee, Room 270: July 12, 2006

For agenda and schedule information, call Kim Bardes at 503-797-1537. e-mail: bardes@metro.dst.or.us

MPAC normally meets the second and fourth Wednesday of the month.

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METRO POLICY ADVISORY COMMITTEE MEETING RECORD

June 14, 2006 – 5:00 p.m.

Metro Regional Center, Council Chambers

Committee Members Present: Chuck Becker, Nathalie Darcy, Rob Drake, Andy Duyck, Dave Fuller, John Hartsock, Jack Hoffman, Tom Hughes, Richard Kidd, Charlotte Lehan, Alice Norris, Wilda Parks, Chris Smith

Committee Members Absent: Ken Allen, Richard Burke, Bernie Giusto, Margaret Kirkpatrick, Diane Linn, Tom Potter, Larry Sowa, Erik Sten, Steve Stuart, (Multnomah Co. Special Districts – vacant, Governing Body of School District –vacant)

Alternates Present: Laura Hudson

Also Present: Mayor Robert Austin, City of Estacada; Hal Bergsma, City of Beaverton; Ron Bunch, City of Gresham; Bob Clay, City of Portland; Carol Chesarek, Citizen; Valerie Counts, City of Hillsboro; Danielle Cowan, City of Wilsonville; Kay Durtschi, MTAC; Gil Kelley, City of Portland; LEEANNE MacColl, League of Women Voters; Irene Marvich, League of Women Voters; Pat Ribellia, City of Hillsboro; David Zagel, TriMet

Metro Elected Officials Present: Liaisons – Carl Hosticka, Council District 3,

Metro Staff Present: Kim Bardes, Miranda Bateschell, Sonny Conder, Andy Cotugno, Robin McArthur, Lydia Neill

1. SELF-INTRODUCTIONS, ONE MINUTE LOCAL UPDATES & ANNOUNCEMENTS

Chair Richard Kidd, called the meeting to order at 5:06 p.m. Chair Kidd asked those present to introduce themselves.

2. CITIZEN COMMUNICATIONS FOR NON-AGENDA ITEMS

There was none.

Due to lack of quorum at this time, the Chair skipped to agenda item No. 5.

5. NEW LOOK

5.1 Regional Forum

Robin McArthur, Long Range Planning Director, reviewed the agenda for the Regional Forum and spoke to why elected officials should attend as well as stakeholders. She distributed the new look mailer and asked the members to take extras to pass out in their jurisdictions. She outlined the three (3) planned exercises for the forum.

4. COUNCIL UPDATE

Councilor Carl Hosticka said that the Panel of Economic Advisors would be meeting at the convention center on June 16, 2006 from 8:30-4:00. He reviewed the agenda for that meeting. He said that the Metro Council had recently been spending most of their time on the Metro budget and measure 37 issues.

3. CONSENT AGENDA

Meeting Summary for May 24, 2005:

Motion:	Mayor Rob Drake, City of Beaverton, with a second from, Commissioner Andy Duyck, Washington County, moved to adopt the consent agenda with the minor revision pointed out by Chris Smith regarding the quorum and vote at the last meeting.
Vote:	The motion passed unanimously.

5.2 Investing in our Communities: Tools Discussion

Lydia Neill, Principal Regional Planner, distributed an updated version of the spreadsheet that had been included in the packet and that spreadsheet is attached and forms part of the record. She reviewed the importance of the matrix and discussed how she would like the exercise to run.

The members split into two groups and discussed the tools outlined in the matrix. Afterwards a member from each group gave a summary of their discussion. Jack Hoffman gave the first report and Mayor Rob Drake gave the second report.

5.3 Research Findings

Dick Bolen, Data Resource Center Manager, gave a report on research findings regarding the New Look Forecast. He said that those findings would be used as a base case on new look work and related work on the New Look effort in the fall. He reviewed the handout that had been placed at the back of the room, which is attached and forms part of the record.

There being no further business, Chair Kidd adjourned the meeting at 7:12 p.m.

Respectfully submitted,



Kim Bardes
MPAC Coordinator

ATTACHMENTS TO THE RECORD FOR JUNE 14, 2006

The following have been included as part of the official public record:

AGENDA ITEM	DOCUMENT DATE	DOCUMENT DESCRIPTION	DOCUMENT NO.
#5 New Look	June 2006	Flyer for 2006 Regional Forum – New Look at Regional Choices	061406-MPAC-01
#5 New Look	6/14/06	Memorandum from Lydia Neill to MPAC re: Investing in Our Communities Exercise	061406-MPAC-02
#5 New Look	6/14/06	Summary of report: Creating the Base Case Forecast for the New Look, a spatial allocation of projected regional population and employment growth	061406-MPAC-03

M E M O R A N D U M

600 NORTHEAST GRAND AVENUE | PORTLAND, OREGON 97232 2736
TEL 503 797 1700 | FAX 503 797 1797



METRO

DATE: June 20, 2006

TO: MPAC

FROM: Michael Høglund, Solid Waste and Recycling Director

RE: *Solid Waste Disposal System Planning*

Metro's Solid Waste and Recycling Department is nearing the completion of the first phase of the Disposal System Planning Project. The Metro Council will be making decisions on this project during the next few months. Councilor Rod Park, Metro Council Liaison for the project, has asked that MPAC be updated on the project due to potential local impact. On June 28, Solid Waste and Recycling staff will provide background information on the study. As the Metro Council proceeds with its deliberations with respect to Metro's role in the solid waste system, MPAC will be consulted prior to any final decisions. Action by the Metro Council is anticipated to occur in October. A schedule showing key project milestones is attached.

Background

The Disposal System Planning Project is a component of the Regional Solid Waste Management Plan update. 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?* The major question for Metro in Phase 1—*what is Metro's role in the disposal system?*—is currently the focus of the project. Metro's historical role has been as the primary disposal provider in the region. Metro has been the primary provider since the early 1980s, and led the region through the transition from local landfills to the modern transfer/long-haul transport/remote disposal system developed in the late 1980s and early 1990s.

Since 1998, the private solid waste industry has assisted by providing additional capacity at four transfer stations around the region. As a result, private industry could be in a position to provide comprehensive disposal services for the region—a role it was unable to play 15 to 20 years ago. Continued requests from industry to accelerate the pace of private facility authorizations together with the timing of key Metro solid waste contracts and bond payments provide an opportunity to evaluate how disposal services can best be provided to the region's ratepayers.

Metro/Local Government Solid Waste Relationship

Metro's role in the solid waste system has primarily been in the area of waste disposal. Cities and counties, on the other hand, regulate waste collection. However, Metro's decisions relative to the disposal system can have significant impacts on the collection system, as well as the availability of a variety of disposal services for residents and businesses in the area. This study may result in changes in transfer station locations or the rates paid by haulers. Depending on the recommended approach, the outcome of this study may affect local government rate-setting or land-use rules used to site transfer stations.

Progress to Date

The Solid Waste & Recycling Department retained outside consultants CH2M Hill and Ecodata, the latter a nationally recognized solid waste economics firm, to conduct an analysis of various ownership options for the transfer station component of the solid waste system. Options investigated ranged from public ownership of all transfer facilities, mixed public and private ownership, to a totally privately owned system. These system options were evaluated based on their performance with respect to system goals established by the Metro Council, system costs and risk.

The consultant's report was completed in early June. A copy of the Executive Summary of the consultant's report is attached to this memo and results will be discussed on June 28. As noted, MPAC will be asked to comment on study recommendations late this summer or early in the fall. Metro is also coordinating with local governments as part of Metro's Solid Waste Advisory Committee (SWAC).

DSP Major Upcoming Milestones

as of June 20, 2006

	Su	M	T	W	Th	F	Sa
					1	2	3
Jun	4	5	6	7	8	9	10
	11	15: Steering Cmte. - report review	13	14	15	16	17
	18	19	20: Work Session *	21	22	23	24
	25	26	27	28: MPAC **	29	30	1
Jul	2	3	4	5	6	7	8
	9	10	11: Work Session *	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27: SWAC	28	29
	30	31	1	2	3	4	5
Aug	6	7	8	9	10	11	12
	13	14	15: COO Recommendation via Resolution	16	17	18	19
	20	21	22	23: Possible MPAC	24	25	26
	27	28	29	30	31	1	2
Sep	3	4	5	6	7	8	9
	10	11	12	13: Possible MPAC	14	15	16
	17	18	19	20	21: Council Public Hearing	22	23
	24	25	26	27	28: SWAC	29	30
Oct	1	2	3	4	5: Council Decision ***	6	7

One-on-one Councilor briefings

Public comment period on COO recommendation

* Additional work sessions may be scheduled, if needed.

** One or two additional MPAC meetings needed in late August/early September to process the Resolution.

*** Council may prefer to deliberate for a longer period and postpone a decision until later in October.

Executive Summary

Metro Transfer System Ownership Study

Prepared for



June 2006

Prepared by

CH2MHILL
CH2M HILL
P.O. Box 91500
Bellevue, WA 98004

In association with ECODATA, Inc.

Acknowledgements

The authors would like to recognize the following individuals and organizations that provided their opinions on the Metro transfer system and possible ownership options.

1. Metro Council

- David Bragdon
- Rod Park
- Carl Hosticka
- Brian Newman
- Susan McLain
- Rex Burkholder
- Robert Liberty

2. COO/Staff

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 Larget, 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 Transfer Station Owner-Operators

- Dean Spady, Allied Waste Systems
- Ray Phelps, Allied Waste Systems
- Todd Irvine, Allied Waste Systems
- Mike Leichner, Pride Disposal
- Eric Merrill, Waste Connections
- Dean Large, Waste Connections
- Adam Winston, Waste Management
- Mike Dewey, Waste Management

- Will Spear, Waste Management
5. Independent Commercial Haulers
 - Dave McMahon, Cloudburst Recycling
 - Jack Deines, Deines Brothers Disposal
 - Randy Burbach, Flannery's Drop Box Service
 - Mike Borg, Oak Grove Disposal Company
 - David White, Oregon Refuse and Recycling Association
 - Dave Cargni, Portland Disposal & Recycling,
 - Steve Borgens, Portland Disposal & Recycling
 - John Romero, West Slope Garbage Service
 6. Independent Facility Operators
 - Ralph Gilbert – East County Recycling
 - Terrell Garret – Greenway Recycling
 7. Business Self-haul Customers/Homeowner Self-haul Customers
 - 314 customers participated in gatehouse survey
 8. General Public
 - Participated in "Let's Talk Trash" public outreach program

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

	Private	Public	Hybrid
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