

**12055**

Attachment A

***Transfer System Level of Service***  
**EVALUATION CRITERIA**  
**AND STANDARDS**

**October 2004**

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***Prepared:***  
**King County Solid Waste Division**  
**and**  
**Interjurisdictional Technical Staff Group**

Alternate Formats Available Upon Request



**King County**


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 Printed on recycled paper

## **Transfer System Level of Service Evaluation Criteria and Standards**

This report is the first in a series of steps to evaluate the existing regional solid waste system and prepare for the future of solid waste transfer and disposal, including the transition to waste export. This and subsequent reports are being prepared in accordance with King County Ordinance 14971. This first report was written by the King County Solid Waste Division in consultation with the suburban cities' Interjurisdictional Technical Staff Group (ITSG) and King County Council staff.

In accordance with the ordinance, the process for developing a waste export system plan will entail a critical review of the following:

- transfer system capacity
- public and private alternatives for transfer capacity
- public and private alternatives for waste export
- site evaluation criteria
- siting of new facilities, as needed

This first step and purpose of this report is to develop the objective evaluation criteria and standards by which all of the Solid Waste Division's existing transfer facilities can be assessed. The overarching goal of the criteria and standards is to determine 1) when a transfer station needs to be upgraded in place, 2) when a station needs to be relocated to a more appropriate location, or 3) when additional transfer stations need to be built to adequately service the region's growing population. The criteria generally fall into the following categories: the level of service to users, station capacity to handle solid waste and recyclables, local and regional effects of the facility, and cost.

The next step will be to apply the criteria to each of the division's existing facilities to determine whether they meet them, and then recommend what actions are appropriate based on the application of those criteria.

The process for evaluating existing transfer stations is unique. While there are well-established processes for determining whether, or how, to site a new transfer station, there are not established processes for evaluating existing stations. Some of King County's transfer stations have been in place for nearly 50 years. Over time, changes may have occurred in the surrounding land uses, regulations, and rules that govern the siting of a new facility. The division's existing facilities have been upgraded to meet all health, safety, and environmental codes. While certain land use and building codes that existed

when the stations were sited have changed, the facilities have been grandfathered in place. This is not uncommon for many public and private developments when regulations change.

These evaluations will culminate in the Solid Waste Division's waste export system plan, which is due to the King County Council on December 15, 2005, and the update of the *2001 Comprehensive Solid Waste Management Plan*, which will begin on December 1, 2005 and is anticipated to be completed by December 2007.

To provide policy input to the work group that will conduct these evaluations, the ordinance created a Metropolitan Solid Waste Management Advisory Committee (MSWMAC) that will begin meeting after January 2, 2005. The division sent a letter to each city requesting they appoint a representative and alternate to the new advisory committee. Appointments by the cities are due to the division by December 1, 2004. The role of MSWMAC is to advise the Executive, the Solid Waste Interlocal Forum, and Council in all matters relating to solid waste management and to participate in the development of the solid waste management system and waste export plan.

While the process for establishing the MSWMAC is in progress, the ITSG has been working with the division and Council staff to produce this first work product. The group has been meeting weekly with staff since August 6, 2004. Cities that have attended include Auburn, Bellevue, Carnation (representing Snoqualmie Valley Cities), Federal Way, Kirkland, Redmond, Renton, Shoreline, Tukwila, and Woodinville. The ITSG will advise the MSWMAC through at least December 31, 2005.

This evaluation process, which will inform the next update of the comprehensive solid waste management plan, is iterative. The development of evaluation criteria and standards for the division's facilities is the starting point. As the process develops and more analyses are completed, the criteria and standards may be refined.

The next section of this report presents the evaluation criteria and standards developed by the work group, as well as a brief discussion of how we arrived at the criteria and how they will be applied to the evaluation of division transfer facilities. The final section describes the next steps and presents a description and timeline for future work products to be developed by this group and the MSWMAC.

## Evaluation Criteria and Standards

The division operates eight transfer stations and two rural drop boxes, which serve the following functions:

- Providing a range of facilities dispersed throughout the county for the convenient disposal of solid waste by commercial haulers and the self-haul customers
- Consolidating solid waste into fewer, more compact loads for transport to the Cedar Hills Regional Landfill
- Providing drop-off locations for recyclables, yard waste, and household hazardous wastes by self haulers
- Providing disposal locations for individuals and businesses who do not have curbside collection available

New stations are typically built to handle solid waste tonnage over a 20-year planning horizon. Six of the county's eight transfer stations have been operating since the late 1950s to 1960s. The 1992 comprehensive solid waste management plan recommended an aggressive strategy for upgrading the transfer system, including the siting and construction of three to four new transfer stations. In 1995, however, the Council rejected the rate proposal that would have funded the capital program set forth in the 1992 plan. The Council directed the division to take measures to reduce or eliminate the need for any new stations and to make existing facilities as efficient as possible (KCC 10.22). The division has followed that directive.

Currently, some of the transfer stations are operating at or near capacity. In addition, the Cedar Hills Regional Landfill will close when it reaches its permitted capacity, estimated to be in approximately 10 years. Once the landfill closes, the transfer system must be prepared for waste export, which requires the addition of waste compactors at some or all stations.

Economic growth in the county and advances in the solid waste industry (such as larger trucks) have required the division to make adjustments to the transfer stations over the years. One factor that has required creative space planning at the sites was the addition of recycling collection bins beginning in the late 1980s. Site constraints at some facilities have made it difficult to provide expanded recycling services. As the facilities age and the needs for solid waste and recycling services change, planning for the long-term future of the system may require more significant upgrades, or possibly the addition, of transfer stations in the region.

The purpose of setting evaluation criteria and standards is to establish a foundation for assessing the transfer system and determining what actions need to be taken to prepare for the future. Although available guidance for existing stations is sparse, the ITSG, Council staff, and division staff used the following sources to develop criteria:

- *Selected Facility Performance Criteria from the Final Solid Waste Policy Report, April 1996*
- *Waste Transfer Stations: A Manual for Decision Making (U.S. EPA)*
- Input from the private solid waste management companies in the region – Waste Management Inc. and Rabanco

Table 1, provided at the end of this report, presents the proposed evaluation criteria and standards that will be applied to each facility in the next phase of the planning process. For the purposes of this report, *evaluation criteria* are the factors that affect the ability of a station to meet the needs of the customers and the community. *Standards* are the measures used to determine each facility's current and future ability to meet those criteria. The standards may be qualitative or quantitative. The division will work with the ITSG and MSWMAC to discuss how the standards will be applied to the existing transfer stations. They will then determine how the standards will be used to decide whether a station meets the criteria, whether it should be upgraded or relocated, or whether new station(s) should be added.

As stated earlier, this is an iterative process. During the next step, the MSWMAC will be involved in applying the criteria and standards to existing stations. During this process, the evaluation criteria and standards may need to be refined or modified. Any changes that are made during this step will be discussed in the next report to Council.

## Next Steps

To direct the planning process, a number of supporting analyses and reports must be prepared and submitted to the Council and interlocal forum, including but not limited to the following (Ordinance 14971, Section 6.B):

Report	Due Date
Transfer System Level of Service Evaluation Criteria and Standards	October 15, 2004
Analysis of Transfer System Needs and Capacity Using the Level of Service Evaluation Criteria and Standards	April 15, 2005
Analysis of Options for Public and Private Ownership and Operation	To be determined with April 15 report
Preliminary Transfer and Waste Export Facility Recommendations (with estimated system costs, rate impacts, and financial policy assumptions)	To be determined

Each report must include the current timeline for submittal of future reports and be approved by the Council by motion.

The next report is the *Analysis of Transfer System Needs and Capacity Using the Level of Service Evaluation Criteria and Standards*. This report will contain results of applying the evaluation criteria and standards to each of the division's facilities.

Two major work products will ultimately be produced through this iterative planning process: 1) a waste export system plan due to the Council and the solid waste interlocal forum by December 15, 2005, and 2) the update of the comprehensive solid waste management plan anticipated by December 2007.

**Table 1. Solid Waste Transfer System Evaluation Criteria and Standards<sup>a</sup>**

These criteria and standards must be developed to determine the following (per Ordinance 14971, Section 5.C.1): ... when a transfer station needs to be upgraded in place, relocated to a more appropriate location, or additional transfer stations need to be built to adequately service the region's growing population;

EVALUATION CRITERIA	STANDARD	DESCRIPTION
<b>Level of Service to Users</b> 1. Maximum travel time to a transfer facility a. Commercial vehicles b. Business self haulers c. Residential self haulers	30-minute maximum	Measures the travel time to a facility from a point in its service area, considering only that portion within the contiguous urban growth boundary. This criterion will be affected by regional traffic issues. The Solid Waste Division's only means to reduce travel time is to construct additional facilities.
2. Maximum time on site is not exceeded more than 10% of operating hours a. Commercial vehicles b. Business self haulers c. Residential self haulers	16 minutes <sup>b</sup> 60 minutes <sup>c</sup> 60 minutes <sup>c</sup>	Measures wait time to get in and out of station, including unloading time. It is an indicator of whether the facility is over-capacity. The maximum times assume adequate staffing and exclude emergency situations.
3. Facility hours meet user demand	yes/no	Indicates the ability to adjust hours to meet the station's customer demand.
4. Recycling services offered meet the waste reduction and recycling goals a. Business self haulers b. Residential self haulers	yes/no  yes/no	Recycling policies set forth in the current solid waste management plan and business plan define the types of recycling services to be provided at each station. Recycling services are planned to meet the current supply/demand markets and targeted materials in the waste stream.

<sup>a</sup> The development of evaluation criteria and standards assumes that stations meet all applicable health, safety, and environmental codes and regulations.  
<sup>b</sup> Based on feedback from Waste Management.  
<sup>c</sup> Goal established by the Solid Waste Division based on facility performance and customer comment.



EVALUATION CRITERIA		STANDARD	DESCRIPTION
<b>Station Capacity and Characteristics for Solid Waste and Recycling</b>			
5. Vehicle capacity		yes/no	The station is able to accommodate vehicle throughput during the current hours of operation, except for occasional peak hour times (as defined in <i>Solid Waste Transfer Facility Use Assessment</i> submitted to King County Council May 2004).
a. Meets current needs		yes/no	
b. Meets 20-year forecast needs		yes/no	
6. Average daily handling capacity (tons)		yes/no	The station is able to accommodate tonnage throughput during the current hours of operation, except for occasional peak hour times (as defined in <i>Solid Waste Transfer Facility Use Assessment</i> submitted to King County Council May 2004).
a. Meets current needs		yes/no	
b. Meets 20-year forecast needs		yes/no	
7. Space for 3 days' storage of average daily solid waste tonnage during an emergency		yes/no	Establishes how long the facility can continue to function in the event of an emergency, such as a disruption in regional transportation.
a. Meets current needs		yes/no	
b. Meets 20-year forecast needs		yes/no	
8. Space exists for station expansion		yes/no	Determines whether there is available property that will allow expansion to meet station needs.
a. Within existing site borders		yes/no	
b. On available adjacent lands through acquisition		yes/no	
9. Minimum roof clearance of 25 feet		yes/no	Number of feet based on the current commercial garbage truck design per Waste Management and Rabanco.
10. Meets requirements for customer and employee safety		yes/no	Growth in facility use may increase congestion, potentially compromising safety.
11. Ability to accommodate waste export requirements		yes/no	Decisions on waste export may require different waste transfer requirements, such as compaction into containers. This would necessitate modifications.
12. Meets the requirements for level of structural integrity		yes/no	Facility must meet code requirements for seismic, wind, and snow events. Assumes reasonable station maintenance over time.

EVALUATION CRITERIA		STANDARD	DESCRIPTION
<b>Local and Regional Effects of Facility</b>			
13.	Meets applicable local noise ordinance levels	yes/no	
14.	Meets Puget Sound Clean Air Agency standards for odors	yes/no	
15.	Meets criteria for acceptable traffic impacts on local streets a. Additional traffic meets the local traffic criteria level of service standard as defined in the <i>American Association of State Transportation Officials Manual</i> b. Traffic does not overspill onto local streets during more than 5% of the operating hours	yes/no	In general, the goal of this criterion is to strive for stable traffic flow with acceptable (i.e., occasional) delays.  Measures the impact of the queue on the surrounding community.
16.	100-foot buffer exists between facility active area and nearest residence	yes/no	WAC 173-351 sets 50 feet as an adequate buffer; however, the division recommends 100 feet. This distance does not account for mitigation measures such as sound barriers, station enclosure, landscaping, etc.
17.	Subjective considerations a. Facility compatible with surrounding land use, where possible b. Aesthetics c. Sensitive area impacts d. Provides regional equity for host cities Receives fair share of tonnage and customers Receives fair share of other regional public services	To be determined through discussions with MSWMAC	These are important considerations, but cannot be objectively measured. The ITSG has determined that these considerations will be applied through discussions with MSWMAC.
<b>Cost and Rate Impacts</b>			
18.	Operational or capital costs are at a level that cities can support and the Council will adopt	yes/no	Cost will be a factor as the county and the cities determine the appropriate level of service and alternatives to provide it.
19.	Rate impacts for solid waste and recycling are consistent with current county policy	yes/no	County's current policy for solid waste rates is to maintain any rate increase at or below the level of inflation.