

# 2011 PERFORMANCE AUDIT

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Transfer Plan Review Workshop 1

July 26, 2013



Department of Natural Resources and Parks

**Solid Waste Division**

# 2011 Performance Audit

- Focus
  - Rate model/financial plan
  - Transfer system capital projects
- Conclusions
  - SWD's financial plan is comprehensive, sound, and based on reasonable financial assumptions
  - The transfer system plan was developed through an iterative and collaborative process
  - Regional decisions made through that planning process have, in some cases, increased costs
  - These decisions contributed to King County's transfer stations having higher capital costs per ton, in general, than those of other jurisdictions surveyed

# Recommendations

1. Use the economic assumptions adopted by the King County Forecast Council ✓
2. Continue to develop and then formally adopt life-cycle cost analysis as part of the asset management program ✓
3. Review the feasibility of a new investment strategy for the Landfill Reserve Fund
4. Update transfer system and individual facility plans, including analysis of:
  - cost impacts of the number and capacities of the transfer stations
  - functionalities of the stations
  - assessment of project financing and delivery methods

# Capacity

## What affects capacity?

- Vehicle inflow
- Queuing space
- Unloading space
- Tonnage – total and inflow
- Storage space
- Compactor throughput
- Empty trailer availability
- Operating hours
- Services – recycling, household hazardous waste (HHW)

*“by the time the stations reach the end of their expected useful lives, collectively they will be utilizing about 42 percent of their total capacity.”  
(KC Auditor Sept. 2011)*

# “42 percent”

- Assumes two garbage compactors at every station, except Shoreline, each able to process 100 tons per hour, and operating at that level every hour that the station is open 362 days per year
- Did not factor in vehicle capacity, emergency storage, or services such as recycling or HHW at Factoria
- Adjusted assumption – one compactor
  - Factoria – 82 percent
  - SCRTS – 91 percent
  - NERTS – 97 percent

# Cost

- **Based on capital cost**

Some capital costs *“may be considered investments that will save on operating costs.”*

- **Used a “cost per ton” measure**

- **Did not evaluate:**

- **Operating costs**

- Transfer facility

- System, e.g., curb to disposal

- **Functionality/services**

*“we did not take into account overall system costs or the criteria established for the systems, such as providing for emergency storage. Therefore we did not attempt to evaluate cost effectiveness.”  
(KC Auditor Sept. 2011)*

# Functionality

The audit identified *“functionality criteria and decisions”* that may contribute to higher capital costs

- **Compaction**

*“Compacting waste adds cost by requiring purchase of expensive machinery that reduces the size of waste before transport. It also reduces cost by allowing more efficient transfer to the ultimate disposal site and more accurate weight control.”*

- **Mitigation**

*“Mitigation of impacts can add substantial cost to projects and ultimately to the rates paid by rate payers. Transfer stations can have negative impacts on communities. Mitigation of these impacts is an approved policy and in some cases required by law.”*

- **Staying open during construction**

*“Keeping transfer stations open while constructing new stations adds cost to the projects. At the same time, keeping station open resolves other challenges such as accommodating waste elsewhere and hauler transportation costs.”*

# Functionality

- **LEED certification**

*“Achieving LEED Platinum at Shoreline and the goal of LEED Gold at other stations adds to transfer station cost. . . . King County’s recent LEED ordinance will require any future project to quantify the incremental costs of attaining LEED certification. This ordinance was not in effect when Shoreline and Bow Lake were being planned but will apply to the Factoria, Northeast, and South transfer stations.”*

- **Serving self-haul**

*“The inclusion of self-haul in SWD’s new stations is an approved policy which requires:*

- 1. larger properties for vehicle queuing,*
- 2. more space and additional safety measures for tipping, and*
- 3. additional scale operators and site attendants for operations.”*

*“Costs and service considerations can affect the decision about how many transfer stations to have, and what their functionalities should be, e.g., self-haul, enclosed buildings, compaction.”*



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