



## King County

### Solid Waste Division

Department of Natural Resources and Parks

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April 25, 2014

The Honorable Dini Duclos  
Federal Way City Councilmember  
Chair, SCA Caucus of the RPC  
6300 Southcenter Blvd  
Tukwila, WA 98188

Dear Chair Duclos:

Thank you for your letter of April 15, 2014, requesting answers to questions the Regional Policies Committee have about the Solid Waste Plan Final Report. The report recommended the following;

- Proceed this year with a new Factoria Recycling and Transfer Station using current design and permits (with minor modifications to retain flexibility)
- Continue siting process for a South County Recycling and Transfer Station
- Work with stakeholders on developing the optimal “no-build” option for future Northeast capacity and compare trade-offs and benefits with the adopted Transfer Plan

With that in mind, we offer the following answers to your questions.

#### **CLOSURE OF EXISTING TRANSFER STATIONS**

1. Kirkland’s MOU with King County provides that the “County should focus investment in part to expand, relocate, or replace, ... transfer stations when safety, efficiency, capacity, or customer services needs cannot be met by existing transfer facilities.” Given that the Houghton Transfer station is the second busiest station in the system and fails to meet 18 of 26 level-of-service criteria in the Transfer Plan, and given that the County has repeatedly promised to close Houghton, how can the SWD justify anything other than closing Houghton by 2021?

**Answer: The three Alternatives recommended for further evaluation – Base, E1, and E2 – all include closing Houghton in 2021.**

2. Similarly, how does the SWD justify not closing Renton as scheduled by 2018?

**Answer:** As part of the Transfer Plan review, the division was requested to assess whether changes could be made that could reduce future capital expenditures while still meeting desired service objectives and levels. Alternatives E1 and E2 considered keeping Renton open as means to reduce capital expenditures while maintaining a higher level of service than would be available if it were to close.

Subsequently, the division has received input from the City of Renton opposing keeping the station open. Closure of the Renton Transfer Station would be incorporated into the further evaluation of Alternatives E1 and E2.

3. In solid waste as in realty, it is "location , location, location." What is the current population served by the Houghton station?

**Answer:** The Houghton Transfer Station currently serves a population of approximately 270,000 people.

4. If Houghton is closed without a replacement, what populations and uses would Shoreline and Factoria stations have to serve?

**Answer:** Options E1 and E2 call for policy changes that would impact the populations served either by redirecting waste or limiting self-haul. Other demand management options could also be employed that could impact population served. The division is recommending a discussion of these options by the region. It is anticipated that both stations would provide services for commercial and self-haul garbage customers, recycling services, and Factoria would provide Household Hazardous Waste services.

## COST

1. What are the rate impacts of the different scenarios vs. the base plan?

**Answer:** The cost per ton impacts to current rates ranged from as high as \$16.39 (Base Plan) to as low as \$5.16 (D\*\*\*). This equates to an added cost per month for the average household of \$0.34 to \$1.08. Attachment 1 provides estimates based on forecasts for inflation and bond rates that were available at the time of the Transfer Plan review analysis and assume 20-year bonds at 5 percent. This chart has been corrected from a previous version to add .21 cents per ton to the average cost for scenarios that include South County. Other figures remain unchanged.

2. What are the estimated capital costs for each of the remaining transfer stations to be built under the Base Plan and Option E? Include all costs (including but not limited to design, engineering, land acquisition, environmental studies and compliance, permitting, construction, mitigation, overhead, etc.).

**Answer: See Attachment 2 – Cost and Debt Service By Facility and By Year**

3. What is the annual debt service by year for each new facility in the Base Plan and Option E through 2040? List the assumptions (i.e. costs, length of bonds, interest rates, etc.) that form the basis of your calculations.

**Answer: See Attachment 2– Cost and Debt Service By Facility and By Year**

4. What is the rate impact for annual debt service for each new facility in the Base Plan and Option E using the most recent tonnage projections? List the yearly tonnage projections used in your calculations.

**Answer: See Attachment 2 – Cost and Debt Service By Facility and By Year**

5. What are the total annual estimated operating costs for each of the transfer stations in the system for the Base Plan and Option E and what is the rate impact?

**Answer: Operating costs are not expected to vary significantly between alternatives, because the system must handle the same number of tons and transactions. For this reason, the division did not perform in-depth analysis of this issue. Regardless of the number of transfer stations, the number of tons and transactions remains essentially the same, requiring staff and equipment to receive, process, and transport. Transportation costs will vary depending on distance to the disposal or processing location.**

**The division is recommending continued evaluation of E1 and E2 and comparison with the Base Plan. More detailed operational cost analysis could be included in that evaluation.**

6. Alternatives E1/E2 do not meet 12 of the 26 service criteria and only save \$0.38 to \$0.42 per month for the average rate-payer compared to the base plan. Do these costs include hauling costs? Alternatives E1/E2 would involve hauling further distances because the transfer stations are not distributed regionally. King County's September 2013 analysis of Alternative C showed that for that option hauling costs are a larger component of the monthly rates than the capital costs of building the new transfer station facilities. Unless the projected cost saving of between 38-cents and 42- cents per month for Alternatives E1/E2 include hauling costs, the costs may be incomplete and misleading.

**Answer:** This appears to be a reference to Appendix G, which was an early evaluation tool that was replaced and superseded in the final report by the chart comparing impacts of the Base Plan and E1 and E2. The Appendix is of limited utility because the table was structured so that only a system with entirely new stations could meet all service level criteria (and if any station did not meet a particular criterion, the alternative was assigned a “no” for that criterion, even if all other stations satisfied the criterion. Ultimately, the “E” alternatives were determined to be feasible. The projected savings are for capital costs only. The division recommended additional analysis regarding costs comparing E1/E2 (or some combination) and the Base Plan.

7. What happens to the rate if the tonnage drops and you do not meet your projections?

**Answer:** Fixed costs, such as debt service, would need to be spread over a smaller base requiring either reductions in expenditures or an increase in revenue.

8. Is there anything the County can do to cover the bond payments if the tonnage drops, short of cutting services or increasing the rate?

**Answer:** The division is evaluating ways to optimize non-tip fee revenue, such as revenue from carbon credits.

9. According to your last rate submittal, disposal operations at the Cedar Hills landfill cost approximately \$13M and estimated disposal costs in 2026 after Cedar Hills closes in 2025 were \$56M for waste export. What is the impact on the rate for disposal costs after Cedar Hills closes in 2025?

**Answer:** In 2015, the system will save an estimated \$7 to \$8 per ton by disposing at Cedar Hills as compared to the cost of waste export to an out-of-county landfill. This is one of the reasons that King County’s disposal costs are significantly lower than Seattle’s. When Cedar Hills closes, disposal costs are expected to increase; the extent of the increase will depend on a number of factors including the disposal option(s) chosen.

## **FACTORIA**

1. The County has a current permit to rebuild the Factoria Transfer Station. The permit was approved based on a certain number of vehicle transactions and certain acceptable traffic levels at the station and on local streets. How would the E1 and E2 alternatives impact the number of vehicle transactions (both commercial and self-haul) and traffic on local streets as compared to the assumptions in the current permit?

**Answer:** The number of vehicles using the Factoria Recycling and Transfer Station is expected to increase under Alternatives E1 and E2.

2. Why do you think it is a good idea to extend the hours that the Factoria transfer station is open for self-haul to 11pm on weeknights? Who is going to think that is a good idea on a nice summer evening, when windows are open, only to hear garbage being dumped into transfer trailer beds?

**Answer: For Alternatives E1 and E2, the division modeled extended hours at Factoria to increase capacity. Unlike the current facility, the new Factoria Recycling and Transfer Station will be fully enclosed.**

#### **LEVEL OF SERVICE**

1. The County proposed two less expensive alternatives (E1 and E2) which fail to meet 12 of 26 level-of-service criteria to include standards for vehicle capacity, self-haul, recycling, and local traffic. The more expensive Base Plan satisfies all level-of-service criteria for a cost to the average rate-payer of between .38 cents to .42 cents more per month. Does the County share the concern that the E1 and E2 alternatives may create a second class transfer system and that we may regret not implementing the Base Plan?

**Answer: See comments above regarding Appendix G. The division recommends further evaluation of E1 and E2 and comparison with the Base Plan.**

2. Arrayed over the service hours of the day, what are the projected drive times for concentric bands served by Houghton compared to the next nearest existing station?

**Answer: This level of analysis is complex and costly. As a result, the division would like to understand the specific concerns to determine if other information can address the issues.**

#### **NORTHEAST TRANSFER STATION**

1. Is it true that a transfer station siting process can take years to complete and starting a siting process now to identify viable and available properties for a Northeast Transfer Station does not obligate the County to actually design or construct the station?

**Answer: A siting process is expected to take 2 to 3 years. A siting process would not obligate the County to design or construct a Northeast Recycling and Transfer Station.**

2. How certain is the SWD that no Northeast Transfer Station (NETS) is needed? What are the risks if the Solid Waste Division is wrong?

**Answer:** Based on current projections, the E1 and E2 options (or some combination) provide sufficient capacity for tonnage and transactions without a new NE station. The Solid Waste Division's recommendation is to refine the E1 and E2 options to determine the optimal "no build" option and then compare the costs and benefits of that option to the Base Plan (which is more expensive, but provides higher levels of service). The Solid Waste Division agrees with the Auditor that further a regional discussion is appropriate and that options should be kept open regarding whether or when a new northeast facility would be needed.

### **RECYCLING**

1. During the RPC presentation we were informed that self-haulers recycle about 5% of their loads, which is well under the 52% that is recycled via curbside pick-up. If that's the case, why would we want to encourage customers to self-haul their trash to transfer stations? Wouldn't it be better to discourage that behavior by keeping curbside pick-up prices down?

**Answer:** More than two-thirds of self-haul customers do use curbside service. Most self-haulers use the transfer stations to dispose of bulky materials or amounts of material that are too large to be picked up with regular curbside service, including many materials that could be recycled such as scrap metal, large loads of yard debris, large amounts of cardboard, and recyclable wood. New transfer stations facilitate expanded recycling.

### **SEPA AND EIS**

1. Will there be a SEPA process on a closure without opening a new northeast station to allow us to understand the impact of packer trucks and self-haulers on other highways?

**Answer:** Any significant changes to the Transfer Plan would likely be subject to environmental review under SEPA, which would include traffic analysis.

2. If King County selects an alternative (E1 or E2) to the Base Plan as recommended in the 2006 Transfer Station Plan, would the SWD be required to complete another Environmental Impact Statement to evaluate the potential environmental impacts of the alternative recommendations before the new plan could be implemented?

**Answer:** It is likely that material changes to the Base Plan would require environmental review.

### **TONNAGE ESTIMATES**

1. In 2005, the County estimated 1.6m tons would be processed by the system in 2030. Revised tonnage estimates call for 785,000 and 860,000 tons in 2030 and 2040, respectively. How confident is the County in its revised tonnage estimates and its ability to provide service under Alternatives E1/E2?

**Answer: Forecasts are based on the best available information and based on current projections, alternatives E1 and E2 can accommodate system tonnage and transactions.**

2. Bellevue has indicated that it does not intend to sign an extended interlocal agreement (ILA) with the County, and that it will leave the system when the current ILA expires in 2028. Does the Solid Waste Division (SWD) believe that it is prudent to plan for a regional system that does not include the tonnage produced by Bellevue at this time?

**Answer: The division works to retain as much flexibility as possible while incorporating the best information available at the time, thus the current tonnage forecast does not include tonnage that is not contractually committed to the system.**

3. The fact that Bellevue has decided to not extend its ILA with the County makes planning for the future of the system challenging. A new Northeast Transfer Station is needed to handle Bellevue's tonnage. In order for both Bellevue and King County to plan, the County should establish a deadline. When should that deadline be?

**Answer: The financial policies committee of MSWMAC is evaluating latecomer provisions, which could include a recommended deadline. However, presumably, any deadline could be changed in the future if the region determined it was beneficial to do so.**

4. Even if Bellevue opts out of the County system, King County's projections show the tonnage rising back up to the current levels in upcoming years. Considering the length of time that siting a station requires, would it not be prudent to move forward with siting a NE station for the future?

**Answer: There is sufficient time for further discussions with stakeholders, and the division agrees with the Auditor that additional regional discussions on this issue are appropriate.**

5. Under Alternative E1, how will the County legally require haulers to take waste to specific transfer stations to maximize the use of the system's available tonnage capacity? What enforcement mechanism will be used?

**Answer: The County would likely adopt an ordinance directing certain tonnage to specific stations. The enforcement mechanism would be identified in the ordinance.**

6. How much solid waste tonnage reduction and slower growth projections is converted to increased tonnage in new and existing recyclables, requiring more efficient and compartmentalized stations to handle it?

**Answer: The current forecast assumes a one percent annual increase in recycling until a recycling rate of 70 percent is achieved. Achieving the 70 percent recycling goal assumes that transfer stations will recycle 35 percent of the solid waste delivered by self-haul customers. Expanded recycling capabilities will be needed to achieve that goal.**

7. What are the tonnage reduction factors that would drive a closure of Houghton?

**Answer: Tonnage reduction would not be the driving factor in closing Houghton.**

8. Is it realistic to drive 18% of the system tonnage to other existing stations?

**Answer: Operational and policy changes would be needed. The division would work with stakeholders to identify which changes to pursue.**

9. What future increases in tonnage would drive a need for a new Northeast station if Houghton is closed without a replacement in place?

**Answer: The need for a new station could be driven by tonnage increases or by desire for new or improved services.**

10. By recommending the "No build" Alternatives E1 and E2, the County is gambling that its tonnage projections are correct. In 2008, the economy experienced an unforeseen recession which resulted in a significant decrease in the tonnage projections made in the 2006 Transfer Plan which indicates that the County's tonnage estimates may be wrong. The tonnage projections are based on a 70% recycling rate. However the region is only at 52%. What if the County is wrong about the recycling rate and what if the economy rebounds? What is the County's back-up plan if the tonnage estimates are too low? Would the County be willing to conduct a sensitivity analysis of their risk before excluding the Northeast Transfer Station option?

**Answer: The division is recommending continued evaluation of E1 and E2 in consultation with stakeholders. A sensitivity analysis as described above could be included in that evaluation.**

**The 70 percent recycling goal was established in consultation with MSWMAC during development of the draft comprehensive solid waste management plan. MSWMAC's current work program includes revisiting that draft plan beginning in August. Reaching the 70 percent goal would require significant commitment and involvement from cities and hauler partners.**

### **TRAFFIC IMPACTS**

1. What are the traffic impacts to the north end cities from diverted trips to the Shoreline Transfer Station? What routes would diverted traffic take? What will be the impact on SR 522 and SR 104 if Houghton closes? What provisions will be made for diversions of transfer station traffic due to unforeseen detours? Will the impacted cities receive ongoing mitigation dollars for roadway repairs? If a decision is made to add to traffic in some locations for a public service, would there be mitigation payments or support for mitigation projects?

**Answer: The division would work with the region on these implementation issues, if the determination is made to redirect commercial traffic to Shoreline.**

### **TRANSACTIONAL CAPACITY**

1. Regarding transactional capacity at a new Factoria station, there will be 2.75 times more self-haul unloading bays, almost three times the self-haul trip capacity on weekdays and three-and-a-half times more self-haul unloading bays and self-haul trip capacity on weekend days, so why does the SWD conclude that "the point of failure is managing the transactions"? (Currently, the Factoria transfer station has 4 unloading bays for self-haul and the new Factoria transfer station will have 11 unloading bays during the weekdays and 14 unloading bays during the weekend days for self-haul.)

**Answer: Currently, at Factoria waste is disposed on two sides of the pit. One side has eight self-haul stalls and the other side has four commercial stalls (commercial stalls are twice as large as self-haul stalls.) Typically, the station is operated so that commercial haulers and self-haulers do not dump across from one another, which means that only four self-haul stalls and two commercial stalls are typically used at the same time. However, the station is sometimes operated to allow dumping in all eight self-haul stalls and all four commercial stalls during busier periods to avoid excessive queuing. In addition, on weekends when commercial haulers are generally not present, eight self-haul stalls are commonly used, and the commercial side of the station may be opened to self-haul customers as needed for a maximum of 16 stalls.**

**The new station will generally operate with three commercial bays and 11 self-haul bays. However, the flat floor design provides significantly more flexibility than the current outdated pit design. The operating area can be reconfigured as demand changes between the time of day, week, or year. This will allow us to reallocate the available space based on the type of customer demand being served.**

2. What operational changes can be made to the system to handle sufficient transaction/vehicle capacity (e.g. longer hours, build second compactor at Factoria now and add queuing lane, etc.)?

**Answer: There is potential for adding a scale and a queuing lane at Factoria, among other options (and an additional compactor is proposed to be included in the current construction contract). The division would work with stakeholders to identify preferred options.**

3. What is the maximum vehicular and transactions capacity of the system? Does the calculation assume the closure of Houghton and Renton open or the closure of both stations?

**Answer: See Attachment 3. To determine capacity, the division extrapolates based on the historical inflow of both tons and vehicles on an hourly basis. Considering these well-established patterns provides a more accurate picture of how a station will actually function rather than averaging activity across all days or hours.**

#### **OTHER**

1. Has mandatory curbside collection, that some cities already have, been considered?

**Answer: The County cannot require cities to institute mandatory collection, and there is still demand for self-haul services from residents and businesses in cities with mandatory collection. Over 80 percent of our self-haul customers have curbside collection services, so a mandatory system would not likely make a significant difference in our self-haul transactional volume.**

2. Can the system incentivize commercial haulers to utilize the Cedar Hills Landfill and bypass the transfer stations (using the Regional Direct Rate)?

**Answer: When the Regional Direct rate was increased, most tonnage that previously went directly to Cedar Hills went to Bow Lake instead. As a result, it is not anticipated that adjusting the Regional Direct rate would address capacity issues in NE King County. Pages 45 and 46 of the [Transfer Plan Review Final Report](#) provide more detailed information.**

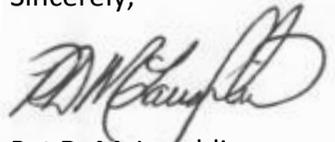
#### **QUESTIONS FOR THE AUDITOR**

Three additional questions in your letter were identified as better directed to the King County Auditor. I understand that those questions have since been responded to directly by Audit staff.

Dini Duclos  
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Thank you again for taking the time to write. If you have any further questions or concerns, please feel free to contact me at 206-477-4501 or by email at [pat.mclaughlin@kingcounty.gov](mailto:pat.mclaughlin@kingcounty.gov).

Sincerely,



Pat D. McLaughlin  
Division Director

cc: Sound Cities Association Board of Directors  
Sound Cities Association Public Issues Committee  
Sound Cities Association Mayors and Managers/Administrators  
Metropolitan King County Councilmembers  
    ATTN: Michael Woywod, Chief of Staff  
        Anne Noris, Clerk of the Council  
King County Regional Policy Committee  
Ben Thompson, Deputy Auditor, King County Auditor  
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