## STAFF REPORT

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| **Agenda Item:** | 6 | **Name:** | Terra Rose |
| **Proposed No**.: | 2018-0453 | **Date:** | October 29, 2018 |

**SUBJECT**

Proposed Motion 2018-0264 would acknowledge receipt of a report providing historical data on the amount of residual material from material recovery facilities is disposed of at the Cedar Hills landfill in response to a budget proviso requirement.

**SUMMARY**

The King County Solid Waste Division (SWD) operates a regional solid waste system in which the County is responsible with providing solid waste planning, management, transfer, and disposal services through 2040 for the unincorporated area and 37 partner cities that have signed interlocal agreements (ILA). Waste generated or collected in the service area is disposed of at the Cedar Hills Regional Landfill, a 920-acre site located in unincorporated Maple Valley.

For recycling service, partner cities typically contract with private haulers for curbside pickup of recyclable materials from residents and businesses. The materials are then taken to private facilities known as material recovery facilities (MRFs) where the materials are sorted by type (e.g., glass, aluminum, plastic grade) and prepared for sale. Even after the sorting processes, some residual material remains that cannot be recycled and that must be disposed. This includes material that is not recyclable but was placed in the curbside bin (e.g., diapers), material that is recyclable but that has been contaminated (e.g., plastic containers with food still inside) or recyclable material that was not captured during the sorting process due to imperfect sorting.

This year, China implemented stricter policies and standards, referred to as “China Sword,” around the type and quality of recyclable materials that may be imported into the country. To monitor the impact of the China Sword policy changes on King County, the Council included a proviso in the amended 2017-2018 budget[[1]](#footnote-1) that required a report providing the most recent available data on the amount of residual material from MRFs that is disposed of at the Cedar Hills landfill.

The report attached to Proposed Motion 2018-0453 notes that SWD relies on data reported to the Department of Ecology and also includes historical data for one of the four MRFs that support King County’s regional solid waste system. The other three facilities did not identify the Cedar Hills landfill as one of the locations where residual material is disposed in their annual reports to Ecology and so the transmitted report to the Council does not include data for those facilities.

**BACKGROUND**

The King County Solid Waste Division (SWD) operates a regional solid waste system in which the County is responsible with providing solid waste planning, management, transfer, and disposal services through 2040 for the unincorporated area and 37 partner cities that have signed interlocal agreements (ILA). In support of this system, SWD operates eight transfer stations, two drop boxes, the Cedar Hills Regional Landfill, and waste prevention and recycling programs. King County receives solid waste at its transfer stations and drop boxes from solid waste haulers and self-haul customers. These waste loads are consolidated, transferred onto trailers, and transported by truck to the Cedar Hills landfill in unincorporated Maple Valley.

For recycling, partner cities typically contract with private haulers for curbside pickup of recyclable materials from residents and businesses. The materials are then taken to private facilities known as material recovery facilities (MRFs) where the materials are sorted by type (e.g., glass, aluminum, plastic grade). Even after the sorting processes, some residual material remains that cannot be recycled. This includes:

* material that is not recyclable but was placed in the curbside bin (e.g., diapers);
* material that is recyclable but that has been contaminated[[2]](#footnote-2) (e.g., plastic containers with food still inside); or
* recyclable material that was not captured during the sorting process due to imperfect sorting.

**China Sword.** For many years, China has been a primary market for recyclables from the U.S. and Europe. Container ships unloading goods at West Coast ports would return to China with recyclable materials to be used in manufacturing. In 2017, China filed notice with the World Trade Organization that it was planning extensive restrictions on imported recyclable materials for 2018. This initiative, called the “National Sword” or “China Sword” imposes a combination of restrictions including:

* **Ban of low-grade plastics and unsorted paper.** Beginning in 2018, China no longer allows the import of some commonly recycled materials, including low-grade plastics and unsorted paper.
* **Reduction of contamination standards.** Lower contamination standards for materials not covered by the ban have also been imposed. Beginning in March 2018, all scrap materials imported into China may not exceed contamination levels ranging between 0.3 and 1.0 percent, depending on the material type. Common curbside materials such as paper and plastics now face a 0.5 percent contamination standard, which is significantly below the typical processing standards of three to five percent at Washington recycling facilities. The Washington State Department of Ecology has noted that, “It is believed that a 0.5 percent contamination limit would render virtually all domestic recovered materials ineligible for sale to China.”
* **Suspension of import licenses.** For part of 2017, China suspended the issuance of import licenses. Some licenses have been issued in 2018, but import of certain materials remains limited.

Some alternative markets for recyclables have emerged in Asia and elsewhere, but not at the scale of the former market in China. Recycling processing facilities in the United States have responded to the policy changes in a number of ways including slowing down their processing and sorting lines, adding more labor, exploring additional technology to enhance sorting, requesting to landfill recyclable materials, and storing materials in hopes that scrap prices and markets stabilize. In response to the increased processing costs, at least one private hauler has requested and received approval from the Washington Utilities and Transportation Commission for a temporary surcharge on residential recycling bills.

**Possible impacts of China Sword on King County.** Under King County’s regional solid waste system, the County has a limited role in the collection and processing of recyclable materials. That responsibility falls predominantly with private haulers that are contracted by cities to pick up recyclable materials curbside and take the materials to their own facilities for processing and sale.

Given this arrangement, it is anticipated that King County will not be as directly affected as the private haulers, but will face impacts if haulers are not able to find alternative markets for recyclables or find ways to meet China’s allowable contamination standards. Issues that could affect King County include:

* **Impacts to the life of the Cedar Hills landfill.** There are concerns that individual solid waste customers might conclude that it is not worthwhile to recycle any longer and that more non-waste materials (such as yard waste or recyclable materials) could be disposed rather than recycled, negatively impacting recycling rates.[[3]](#footnote-3) Additionally, private haulers may request permission to landfill recyclable material at Cedar Hills for which they could not find a buyer. A lower countywide recycling rate could mean more waste is disposed of at the Cedar Hills landfill than anticipated thereby shortening its useful life. Cedar Hills is currently projected to have capacity through 2028 without further development.[[4]](#footnote-4)
* **Declining revenues from recycling at transfer stations.** SWD staff indicate that King County has a contract with Republic Services to collect and process the cardboard and mixed recyclables collected at King County’s transfer stations. These are the same materials that people put in their curbside bins (glass, tin, aluminum and plastic containers, cardboard and mixed waste paper). The County receives a credit for the materials collected based on current market prices. Earlier this year, SWD staff noted that the recycled materials impacted by the China Sword initiative do not make up a large share of what is recycled at County transfer stations.[[5]](#footnote-5)

**Proviso Requirement.** To monitor potential impacts of the China Sword policy changes, the Council included a proviso in the amended 2017-2018 budget[[6]](#footnote-6) that required a report providing historical data on the amount of residual material from MRFs that is disposed of at the Cedar Hills landfill, due by September 14, 2018. The report was to include a description of how the Solid Waste Division receives information about the amount of residual material from MRFs that is disposed of at the Cedar Hills landfill, a table providing the annual tons for the past ten years, and an explanation of any trends in the provided data. Specifically, the proviso stated:

 *P8 PROVIDED FURTHER THAT:*

 *Of this appropriation, $250,000 shall not be expended or encumbered until the executive transmits a report providing historical data on the amount of residual material from material recovery facilities disposed of at the Cedar Hills regional landfill and a motion that should acknowledge receipt of the report and reference the subject matter, the proviso's ordinance, ordinance section and proviso number in both the title and body of the motion and a motion acknowledging receipt of the report is passed by the council. For the purposes of this proviso, "residual material" refers to items that remain after material collected as recyclables is processed by the material recovery facilities that is then landfilled. "Residual material" may include, but is not limited to, nonrecyclable material, contaminated recyclable material or recyclable material not captured during processing due to imperfect sorting.*

 *The report shall include, but not be limited to:*

 *A. A description of how the solid waste division receives information about the amount of residual material from material recovery facilities disposed of at the Cedar Hills regional landfill;*

 *B. A table providing the annual tons of residual material from material recovery facilities disposed of at the Cedar Hills regional landfill each year for the last ten years. The table shall include a partial-year figure for 2018 if data is available or alternatively note when the 2018 data will become available. If any of the data requested by this proviso is not available, the report must describe the specific data that is unavailable and provide an explanation; and*

 *C. An explanation of any trends in the provided data.*

 *The executive should file the report and a motion required by this proviso by September 14, 2018, in the form of a paper original and an electronic copy with the clerk of the council, who shall retain the original and provide an electronic copy to all councilmembers, the council chief of staff and the lead staff for the committee of the whole, or its successor.*

**ANALYSIS**

The *Residual Material Report* and a motion acknowledging receipt of the report were transmitted on September 13, 2018. The content of the report and how it responds to the proviso requirements is further described below:

1. **Description of how the Solid Waste Division receives information about residual material disposal**

According to the transmitted *Residual Material Report*, King County’s regional solid waste system is supported by four, privately-managed recycling facilities: Cascadia Recycling Center in Woodinville, JMK Fibers in Tacoma, as well as the Recology CleanScapes Material Recovery Center and Rabanco Recycling Transfer Station, both in Seattle. State law[[7]](#footnote-7) requires these facilities to submit an annual report to the Department of Ecology that should include the name and address of the facility, the year covered by the report, annual tons of each type of material handled, destination of waste transported from the facility for processing or disposal, and any other information required by their permit. These annual reports are available to King County upon request.

The *Residual Material Report* to the Council notes that SWD obtained annual reports for these four facilities, but only the Cascade Recycling Center Annual Report identified the Cedar Hills Regional Landfill as one of the landfills used for residual material disposal. SWD’s financial records were then used to determine the tons received at Cedar Hills from that facility. The other facilities listed a different landfill or none at all in their annual reports and so residual material data for those facilities is not included in the report to the Council. It is unclear whether these facilities do not use the Cedar Hills landfill for disposal of residual materials or if they simply did not identify Cedar Hills on their annual reports.

SWD notes that they will be working with Ecology to improve data and reporting compliance from the recycling facilities.

1. **Historical data on residual material disposed at the Cedar Hills landfill**

The available historical data on residual material disposed at the Cedar Hills landfill is provided in Table 1. As noted above, only the Cascade Recycling Center identified the Cedar Hills landfill as a location where residual material is disposed and so only this data is provided in the *Residual Material Report*.

**Table 1. Annual Tons of Residual Material Disposed of at Cedar Hills Landfill**

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|  | **Tons of Residual Material Disposed of At Cedar Hills by Facility** |
| **Year** | Cascade Recycling Center (tons) | JMK Fibers | Recology CleanScapes MRF | Rabanco Recycling Transfer Station |
| 2007 | 13,123 | Information Not Available |
| 2008 | 5,853 |
| 2009 | 5,192 |
| 2010 | 5,616 |
| 2011 | 5,654 |
| 2012 | 6,246 |
| 2013 | 6,374 |
| 2014 | 5,130 |
| 2015 | 5,326 |
| 2016 | 8,171 |
| 2017 | 11,149 |
| 2018 (as of June) | 7,200 |
| **Total** | 85,034 |

1. **Trends in provided data**

The transmitted report notes that anecdotally, the residual material disposed of at the Cedar Hills landfill from the Cascade Recycling Center aligns with the County’s own tonnage experience before, during, and after the 2008 recession. However, it further indicates that the data available from the Department of Ecology and the Division’s own financial data is insufficient to offer broader explanations on trends. For example, SWD does not have access to information for the MRFs on changes in the number of customers served or recovery facility technology improvements that would help explain any year-to-year changes in residual material data.

With the transmittal of this report required by the proviso, the funds encumbered by the proviso can be released, if Motion 2018-0453 is approved by the Council.

**ATTACHMENTS**

1. Proposed Motion 2018-0453 (and its attachment)
2. Transmittal Letter

**INVITED**

1. Pat McLaughlin, Director, Solid Waste Division
1. Ordinance 18766, Section 47, Proviso P8 [↑](#footnote-ref-1)
2. “Contamination” in terms of recycling refers to the inclusion of materials that are not recyclable (e.g., food containers with food still inside) or the combination of incompatible types of recyclable materials that are baled together (e.g., if a plastic container gets mixed in with paper, it contaminates the paper). [↑](#footnote-ref-2)
3. SWD staff indicate that the previous waste disposal forecast assumed recycling would increase from the Ecology-reported rate of 52 percent to a projected 57 percent in the near term and remain at that level. However, they note that the updated forecast assumes that recycling will continue the years-long pattern of 52 percent and that future forecasts will be updated when the Department of Ecology reports new rates that are sustained over more than one year. Because Ecology’s reporting lags a few years, SWD indicates that they full effect of the China Sword initiative on recycling rates will not be immediately known. [↑](#footnote-ref-3)
4. Motion 15174 [↑](#footnote-ref-4)
5. 2018-B0097 [↑](#footnote-ref-5)
6. Ordinance 18766, Section 47, Proviso P8 [↑](#footnote-ref-6)
7. WAC 173-350-310 [↑](#footnote-ref-7)