King County

Metropolitan King County Council
Budget and Fiscal Management Committee

AGENDA ITEM	**4**	**DATE:**	**August 16, 2011**
PROPOSED No.:	**2011-0145**	**PREPARED BY:**	**Mike Reed, Mike Huddleston, Beth Mountsier**

STAFF REPORT

SUBJECT: AN ORDINANCE setting solid waste rates for 2012.

SUMMARY:

This proposed ordinance as transmitted by the Executive would set the 2012 **Basic Fee** for solid waste disposal as follows:

- Passenger Cars $17.28 per entry
- Other Vehicles $108.00 per ton
- Rates for charitable organizations, minimum per vehicle charges, charges for disposal at stations without scales, and other fees are also adjusted.

August 16, 2011 Status Update

At the July 6, 2011 meeting of the Budget and Fiscal Management Committee, staff updated the Committee on progress towards a consensus recommendation from Executive and Council staff regarding the solid waste rate proposal. Issues concerning the appropriate means to communicate and emphasize the importance of long-term commitments to the regional solid waste system (with regard to future rates) had arisen, and alternative approaches to address this were under discussion between Executive and Council staff.

At that July 6, 2011 meeting, staff reported that resolution had been largely achieved, and a consensus recommendation was nearing completion. Key elements in that resolution were an increase in the proposed Basic Fee from the $108 per ton originally recommended by the Executive, to $109 per ton to address revenue and reserve needs because investment earnings have been less-than-anticipated due to low interest rates.

Additionally, the parties acknowledged the need for adjustments to related rates including the transfer station minimum entry fee, the moderate risk waste fee, the fees charged at stations without scales, and others to reflect the Board of Health's proposed fee increase for the Moderate Risk Waste program.

The parties also agreed to recommend a number of policy statements that would emphasize the importance of extended interlocal agreements ("ILAs"), and note the county's intent to consider appropriate policies and alternative strategies, in the event that extended commitments are not achieved. These policy statements were to be added as a preamble to the proposed ordinance.

The committee directed that input from cities participating in the regional solid waste system be sought regarding the proposed adjustments. The Executive described the proposal at the July 8, 2011 meeting of the Metropolitan Solid Waste Management Advisory Committee ("MSWMAC"), which represents cities participating in the system. The proposal was also addressed at the July 7, 2011 meeting of the Interlocal Agreements subcommittee, a group made up primarily of city staff which has worked to provide recommendations to MSWMAC on revisions to the interlocal agreements. In both instances, there appeared to be general understanding of the need for the proposed revisions and there was no voiced dissent on the recommended changes.

Proposed Striking Amendment

Based on the Budget and Fiscal Management Committee's direction, staff has prepared a striking amendment (with the active participation and review of Executive staff) which addresses the changes identified above. Specifically, the striking amendment includes the following:

- Proposes a $109/ton solid waste Basic Fee

- Proposes the following rates or other fees:
  - Passenger cars $17.49 per entry
  - Charitable Organizations $84.00 per ton
  - Minimum entry fee $17.49 per vehicle
  - Charitable Organizations, minimum charge $13.39 per entry

- For disposal sites without scales:
  - Passenger cars $17.49 per entry
  - Compacted Wastes $31.61 per cubic yard
  - Uncompacted Wastes $18.53 per cubic yard
  - Minimum charge $17.49 per vehicle

- Cedar Hills service fees:
  - Cedar Hills Regional Direct $93.50 per ton
  - Other vehicles $109.00 per ton

- Moderate Risk Waste surcharge for sites with scales:
  - Self-haulers $4.73 per ton
  - Minimum charge $1.81 per entry
  - Passenger cars $1.81 per entry

- Moderate Risk Waste surcharge for sites without scales
    - o Compacted $1.04 per cubic yard
    - o Uncompacted $0.59 per cubic yard
    - o Minimum Charge $1.81 per entry
    - o Passenger cars $1.81 per entry

The striking amendment replaces the Statement of Facts with a Preamble, which addresses:

- King County's role as regional solid waste provider;
- the County’s efforts to keep rates as low as possible, while stating key system values of protection of human health and the environment, extending the life of the Cedar Hills Landfill, renovating the transfer system, and keeping reserve funds at appropriate levels;
- the benefits of a regional solid waste system;
- the County's commitment to collaboration and service delivery;
- the need for long-term commitment by participants in the regional system, and the importance of early, unambiguous and full commitment to long-term system participation in support of collaboration;
- the need for extension of the interlocal agreements;
- the County’s intention, in the absence of such extensions, to continue to deliver quality services but will consider policies addressing capital improvements, reserves, financing, and construction sequencing;
- the proposal’s increase in the Basic Fee from $95 per ton to $109 per ton, projected for a one year period in anticipation of further revision following decisions by cities on extension of the interlocal agreements;
- the region’s interest in continued work with participating cities towards extended ILAs, and for execution of ILA extension or a determination not to extend, by the end of the first quarter of 2012, is stated;
- the $0.82 monthly estimated cost impact of the $109/ton rate proposal on the average one-can residential customer;
- the intended three year term of the existing rate, and its actual four-year application; and the inability of the current rate to support system costs beyond 2011;

- the rate proposal as a response to the 2011 Budget Ordinance, Ordinance 16984, Section 101, Proviso P2;

- The Solid Waste Rate Study (Attachment A) is amended to attach Table B-2, which illustrates the rate impact of various bonding periods, including 20-year and 30-year bonding periods.

The Rate Study referenced above, which is included as an attachment to Proposed Ordinance 2011-0145, provides a rate model which projects potential rates over time. It is important to note that the rate projections contained in this rate model, including the amendment to the rate model described above, are projections provided to illustrate anticipated rates under conditions of the model over time. **The projections are not actual rate proposals, and are not contained in the body of the legislation being considered in Proposed Ordinance 2011-0145.**

BACKGROUND:

In the 2011 County operating budget, the Council required a proposal for a rate adjustment by the Executive by March 2011:

> *This proviso requires a proposal that recommends a solid waste rate adjustment that addresses the following criteria: 1) remedies the forty-five day cash reserve shortfall identified in the financial plan submitted with the Executive's 2011 proposed budget ordinance; 2) provides resources for the anticipated costs for the transfer system upgrade as described in the solid waste management and transfer plan, assuming the current term of interlocal agreements with cities; 3)avoids committing the county to defeasement of bonds beyond the period of contracted participation in the regional solid waste management system by regional partners; 4) compares rates to the levels of other major regional waste generators; 5) identifies any needed adjustments to the 2011 adopted solid waste budget to address the anticipated conflicts in available revenues and anticipated capital costs associated with the proposed transfer system upgrade described in the solid waste management and transfer system plan, and 6) preserves options for means of eventual waste disposal upon closure of the Cedar Hills landfill. The proposal should include a rate study supporting the proposed rate adjustment and a proposed ordinance providing for the adoption of the proposed rate adjustment.* [1]

.

On March 30, 2011 the Executive transmitted Proposed Ordinance 2011-0145, recommending proposed solid waste disposal rates for 2012. The rates recommended are detailed below:

[1] Ordinance 16984 Section 101 Solid Waste Proviso P2

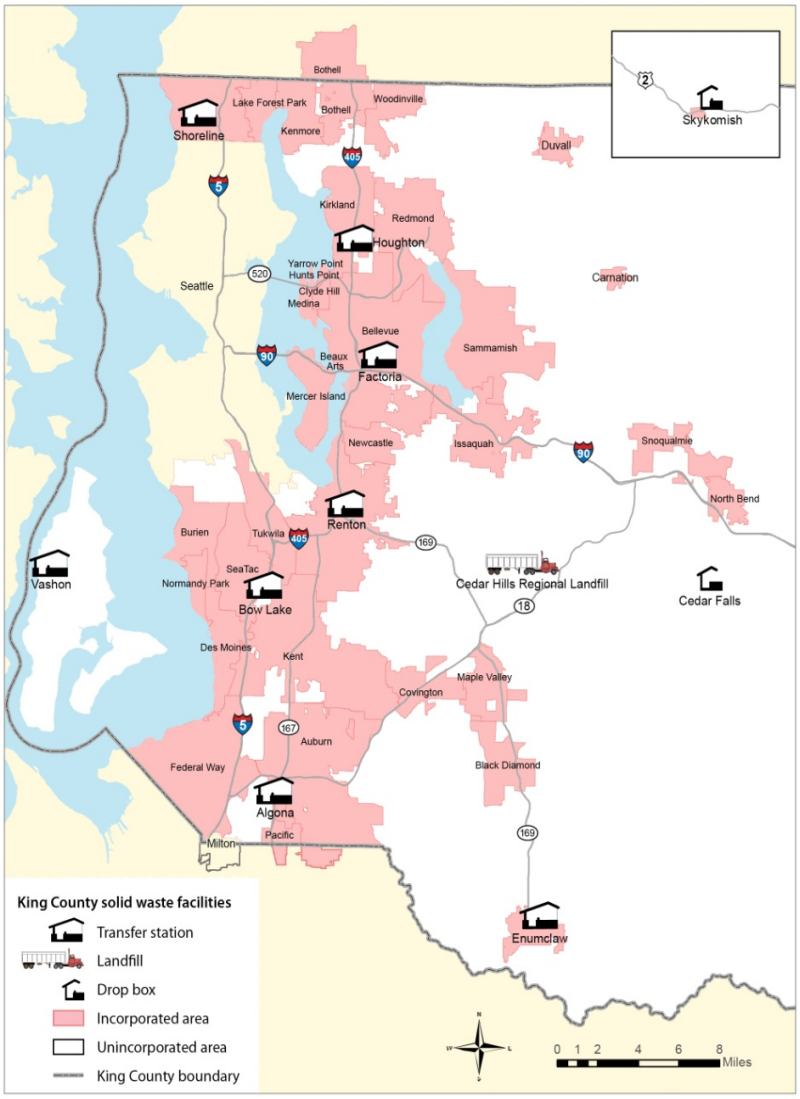
Service Fees for Disposal Sites With Scales		
Disposal Customer Type	*Current Fee*	*Proposed Fee*
Passenger Cars	$15.31 per entry	$17.28 per entry
Other Vehicles (Basic Fee)	**$95.00 per ton**	**$108 per ton**
Charitable Organizations	$73.25 per ton	$83.25 per ton
Minimum	$15.31 per vehicle	$17.28 per vehicle
Charitable Organizations, minimum charge	$11.69 per entry	$13.32 per entry
Service fees for Disposal Sites Without Scales		
Passenger Cars	$15.31 per entry	$17.28 per entry
Compacted Wastes	$27.55 per cubic yard	$32.32 per cubic yard
Uncompacted Wastes	$16.15 per cubic yard	$18.36 per cubic yard

The Regional Solid Waste System

The regional solid waste system is a cooperative, integrated system, with participation by 37 cities, solid waste haulers, and the County. King County receives solid waste at its eight transfer stations and two drop boxes from solid waste haulers, who collect it door-to-door from households in cities and in the unincorporated area. Cities are empowered to manage solid waste disposal within their jurisdictions, including the power to contract with others, such as solid waste haulers, to provide service within the city[2].

Since the 1960s, the County has operated this network of transfer stations and drop boxes, now collectively receiving and processing over eight hundred thousand tons of mixed municipal solid waste annually. These transfer stations, as well as drop boxes serving more remote locations, are distributed throughout the region, as shown on the graphic below:

[2] RCW 35.21.120



A basic fee is charged to discharge waste at the transfer stations. Since 2007, that fee has been set at $95 per ton of waste. The basic fee, and other rates, are established through a rate study conducted about every three years. In the case of the current rate cycle, a rate adjustment occurred in 2007, so that a rate proposal would have been expected in 2009, with a 2010 effective date.

The transfer stations and drop boxes also accept waste delivery from self-haulers—residents and small businesses who accumulate small loads of garbage and deliver it to transfer stations or drop boxes for disposal. The cost per carload is currently set at $15.31.

The Transfer System network receives and consolidates these waste loads, transfers them onto trailers and transports them by truck to the Cedar Hills Regional Landfill, in Maple Valley. The Cedar Hills Regional Landfill is a 920 acre facility located in Maple Valley, about 20 miles southeast of Seattle. It is anticipated that the landfill will reach its

permitted disposal capacity in 2025; the region will need to identify alternative means of waste disposal prior to the facility's closure date. The landfill is owned by King County, and a rental fee is paid for its use for landfill purposes by the Solid Waste Fund to the County's General Fund. The site has been operating as a landfill since 1965. Until last year, it was anticipated that the landfill would reach its permitted capacity in 2018, at which time it would be required to close. In 2010, the Council acted to modify the facility's Site Development Plan, resulting in the expansion of landfill capacity by 56 acres, and extending its useful life; the anticipated closure date is now 2025.

At Cedar Hills, waste delivered from transfer stations is buried in "cells"—multi-acre disposal areas that are engineered to hold the waste permanently while managing the accumulated volumes to assure that leachate runoff and methane gas are appropriately captured and addressed. A limited number of waste haulers deliver waste directly to Cedar Hills; they pay a "regional direct" rate of $92.50 per ton.

Transfer Station Network Upgrade

The regional solid waste system has provided transfer and disposal services for many years at rates that are significantly below those rates charged by neighboring jurisdictions. The current $95/ton rate contrasts with rates charged by surrounding systems, whose rates are as follows:

- Seattle--$145/ton
- Snohomish County--$105/ton
- Pierce County--$112.94/ton
- Tacoma--$130/ton (residents); $150/ton (nonresidents)

This rate has been consistent with the County's efforts to provide participating cities with competitive rate profiles that will incentivize their continuing participation in the system. For an extended period before 2007, program operations continued with no rate adjustment. However during that time frame, it became apparent that the region's aging transfer network (built in the 1960s) would not adequately address the needs of the region for waste transfer services, and that the eventual closure of Cedar Hills Regional Landfill would require additional functional capacity at transfer stations. Among the demands placed upon transfer stations in recent years are the following:

- Compactor Capacity — Older transfer stations currently do not have the capacity to compact and bale waste. Waste compactors have the capacity to more efficiently package the waste load such as to substantially reduce the numbers of truck/trailer trips required to transfer loads. While the region has not made a final determination as to ultimate waste disposal upon closure of Cedar Hills, compactor capacity helps retain options by preparing waste loads for efficient transport.
- Recycling services — The County's increasing emphasis on waste reduction and recycling highlights the need for recycling capacity at transfer stations. Current stations provide opportunities for the public to deposit certain common

recyclables, like newspaper, bottles, and others; however, space limitations constrain the potential to provide recycling capacity for other wastes, which, consequently, remain as part of the waste stream. These include wood waste, yard waste, etc.

- Larger trucks — in recent years, disposal trucks have become larger, capable of handling greater loads. However, older transfer stations were not designed with these trucks in mind — with the consequence that they have difficulty maneuvering in certain facilities.
- Self haul — There remains significant interest on the part of the public in delivering waste loads to transfer stations in personally-owned vehicles, and unlike some other areas of the country, municipal waste systems in this region do not mandate residential participation in door-to-door collections. While this is an expensive element of the King County's solid waste system, transfer stations currently accommodate self-haulers. However, the wait for disposal can be long and result in line-up of vehicles sometimes extending onto public streets.
- Federal Emergency Management Agency (FEMA) requirements—Solid Waste transfer stations play an important role in responding to natural disasters such as earthquakes, flooding and windstorms, providing a place for disposal of large volumes of waste resulting from such disasters. FEMA has established standards indicating that transfer stations should be available for immediate occupancy following a seismic event, and have capacity for receiving and holding at least three days volume of waste to support natural disaster response. None of the five urban transfer stations meet the FEMA waste storage standard.
- Accurate load weighting — The issue of accurate weighing of truck/trailer combinations leaving transfer stations for the Cedar Hills landfill has become acute in recent years. In 2009, the County Ombudsman prepared a report recommending trailer weighing capacity at transfer stations to accurately assess weights of trucks and trailers carrying waste loads to Cedar Hills. This was based on a concern that trailers were leaving transfer stations with loads that exceed maximum weight limits established by the State of Washington. While the Solid Waste Division has responded to the concern by attempting to more accurately assess the load using revised procedural approaches, it is recognized that the long-term solution is the utilization of trailer scales that will be included in waste compacting capacity at new or rebuilt transfer stations.

As a result of these increasing demands on the system, and the recognition of the limitations of the existing transfer station network, the Council in 2004[3] directed the formation of an advisory group of participating cities to make recommendations for addressing these concerns. This group, the Metropolitan Solid Waste Management Advisory Committee, labored for several years working with Solid Waste Division staff to review and develop recommendations.[4] In 2007, after review of the group's recommendations by an independent consultant, the Council adopted the Solid Waste

[3] Ordinance 14971, enacted 8/02/2004

[4] Solid Waste Transfer and Waste Management Plan
http://your.kingcounty.gov/solidwaste/about/Planning/documents/Transfer-Waste-Export-Plan.pdf

Transfer and Waste Management Plan, which directed significant upgrades to the existing transfer station network, including:

- Upgrade the Bow Lake and Factoria transfer stations in place
- Replace the Algona station with a new Southwest Recycling and Transfer Station at a site to be determined
- Replace the Houghton station with a new Northeast Recycling and Transfer Station at a site to be determined
- Close the Renton Transfer Station—

- Retain the Shoreline, Enumclaw and Vashon Recycling and Transfer Stations, which had been recently upgraded or were more recently constructed.

As noted, system revenues are derived primarily from basic fees assessed to those utilizing the transfer station network and the landfill. Thirty-seven cities within the County—(all except Seattle and Milton)—currently participate in the system, based on existing interlocal agreements ('ILAs') that bind them to the system through the expiration date of the agreements in 2028. Those agreements provide that waste generated within those cities and collected by waste haulers, is disposed through the County's system. This waste stream guarantees an associated revenue stream, through the period of the ILAs.

The transfer stations rebuilt or replaced through the upgrade process are expected to have life span of at least 30-40 years. Long term capital costs for the transfer system upgrade are expected to be supported by sale of general obligation bonds, guaranteed by the full faith and credit of the County. Bond repayment is derived from rate revenues.

However, rate revenue for bond repayment can only be assured through the period of the participation of cities in the regional transfer system, affirmed through existing ILAs that continue through 2028. Bond repayment projections assuming a 2028 completion date would require substantially higher rates than would be required if bonds were repaid over a longer period—such as the 30-40 year lifespan of the upgraded transfer stations. The proposed 2012 rate and financial plan that accompanies the rate proposal assumes construction and/or rebuilding of four transfer stations financed through 2028 – as directed by the budget proviso.

Beginning in 2008, and for several years consecutively, the Council included provisos in the County budget intended to spur movement on discussions to address the matter of extending the interlocal agreements[5]. Formal discussions were eventually initiated at

[5] For example, the 2008 County Budget included the following proviso:

"Of this appropriation, $50,000 shall not be expended or encumbered until the executive submits two semi annual progress reports on the progress of negotiations to extend interlocal agreements with cities for solid waste services. The progress reports shall, at a minimum, include the following:

1. an update of the status of the negotiations with each city;
2. an identification of issues in contention with each city;

the start of 2011, through the Metropolitan Solid Waste Management Advisory Committee.

Changing Revenue Landscape

Certain elements of the financial landscape have changed since the Council encouraged discussions to extend the interlocal agreements. The nation has been in a recession, with major impacts on the County solid waste system's tonnage—and consequent revenue reductions. Projections made in 2007 assumed volumes of over 1.1 million tons of solid waste processed by the regional solid waste system by 2011. Current projections are for about 828,000 tons for 2011—a reduction in tonnage of over a quarter of projected amounts.[6] As the Solid Waste Division's operating budgets are based primarily on fees for disposal of waste, the loss of revenue resulted in layoffs of tonnage-driven positions such as transfer station operators and truck drivers. Additionally, at the time of the 2007 rate adjustment, it was projected that rates would be modified on a three-year cycle to remain current with system demands and costs. That schedule would have provided for a rate adjustment, reflecting projected system costs, in the 2010 budget cycle. However, citing the national recession, the Executive did not propose a rate adjustment in his 2010 or 2011 budget proposals.

Upgrade Planning and Scheduling

Meanwhile, the schedule for construction of the first of the urban transfer station upgrades recommended for upgrade by the Solid Waste Transfer and Waste Management Plan, the Bow Lake Recycling and Transfer Station, provided for construction to begin in 2010, with completion scheduled for 2012. In order to provide revenue needed for the start of the Bow Lake upgrade, — in the absence of an extended ILAs with the cities-- the Executive proposed a financing mechanism known as "Bond Anticipation Notes" (BANs)—short-term borrowing tools in anticipation of longer-term revenue from bonds that would be sold based on repayment from solid waste rates. The Executive noted that these BANs are available at an attractive financing rate because of historically low interest rates. The BANs were intended to support funding needs to allow for construction of the Bow Lake station, in anticipation of sales of longer term bonds.

The table below describes the anticipated scheduling of transfer station upgrade/replacement efforts.

3. an identification of cities with which the executive branch feels the county is at an impasse; and
4. for those agencies at an impasse, a detailed summary of the issue causing the impasse."

[6] Executive Proposed Solid Waste Disposal Fees 2012, Figure 3, Tonnage Decline since 2007 p.5

	2011	2012	2013	2014	2015	2016	2017	2018
Bow Lake	**Construction**		**Open**					
Factoria	**Design and Permit**			**Construction**		**Open**		
Northeast	**Site New Facility**				**Design and Permit**		**Construction**	**Open**
South County	**Site New Facility**				**Design and Permit**		**Construction**	**Open**
Houghton	**Close**							
Algona	**Close**							
Renton	**Close**							

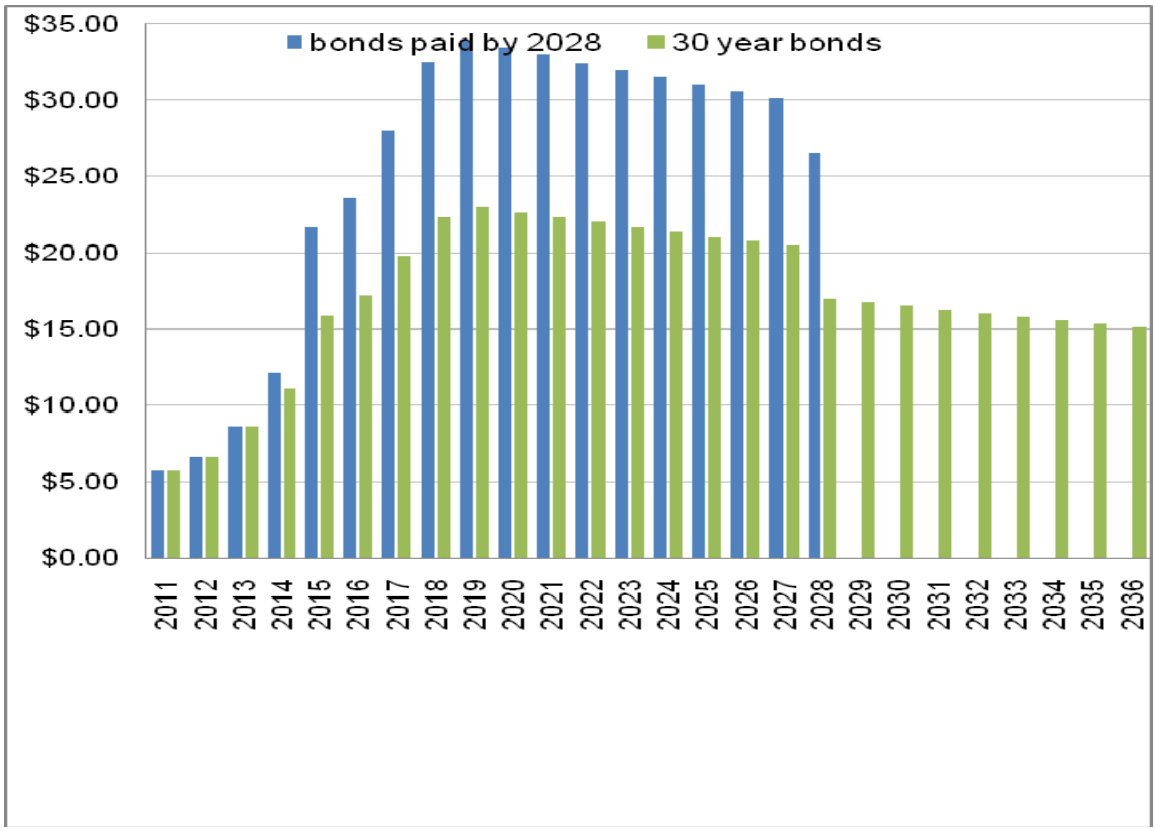
Extending the Life of the Landfill

In recent years, the region recognized the value of the existing Cedar Hills Landfill as a disposal option. Reports indicated the probable expenses associated with any alternative disposal plan for the region's wastes, including waste export to landfills in eastern Washington or eastern Oregon, or thermal recycling of wastes. Cost estimates consistently showed that extending the life of Cedar Hills would be significantly less expensive than other disposal options. It also became evident through changed assumptions regarding the site development plan for Cedar Hills, as well as operational changes, that additional capacity for the landfill could be realized.

In 2010, the Council approved a modified Cedar Hills Site Development Plan, making available an additional 56 acres at the landfill through repositioning operating facilities and opening new areas to landfilling[7]. As a result the landfill now has a projected closure date of 2025. This has allowed more time to complete the upgrade of the solid waste transfer system.

The Executive's 2011 budget proposal did not include a recommendation for a rate increase, again noting the region's weak economy. Each year that an adjustment is deferred though, a higher eventual rate increase is required. This situation exists because bonds can only be sold for the length of the existing contracts, which expire in 2028 – without an extension of the contracts, the costs of the system improvements must be paid off in a shorter and shorter amount of time. The table below illustrates the projected rate impacts in the absence of an ILA extension, and with such an extension.

[7] 2010 Motion 13382 Cedar Hills Regional Landfill 2010 Site Development Plan



In response to this situation, the Council approved the proviso in the 2011 Budget quoted at the beginning of this report. Of particular note is the requirement that the Executive return with a rate proposal that assumes bond repayment based on existing contracted agreements, —requiring completion of bond repayment by 2028.

Meanwhile, in January 2011, the Metropolitan Solid Waste Management Advisory Committee established a subcommittee charged with leading discussions to review the interlocal agreements, staffed and supported by the Executive. The subcommittee has been active in its review process, meeting twice monthly with participation by cities from various parts of the County, and of varying sizes.

In March of this year, the Executive transmitted a rate ordinance which proposes a Basic Rate level of $108 per ton. The proposed rate would increase collection rates for the average residential customer with weekly one-can collection service by $0.76 per month. This is proposed as a one-year “bridge” rate, intended to provide revenue for the continued operation of the system for the short term while allowing the interlocal agreement review process to go forward

Analysis

As noted previously, the Metropolitan Solid Waste Management Advisory Committee (“MSWMAC”) is currently involved in a review of the existing interlocal agreements which define participation in the regional solid waste system by 37 cities and the County

through 2028. That review process has been active and robust, with engagement of cities in twice-monthly meetings of a subcommittee charged with developing recommendations for consideration by the full MSWMAC. The process has now moved on to actual drafting of interlocal agreements with a smaller group of city and county representatives. The process is supplemented by the efforts of the Solid Waste Division to attend meetings of city councils, describing the process and its purpose, and to receive input from cities.

This process is not without challenges. Participating cities had identified and worked through concerns with the current interlocal agreement. It is clear that any new agreement will include significant revisions to the existing agreement. There are ongoing questions about the means of waste disposal following the closure of the County's Cedar Hills Regional Landfill. Also, the County has historically charged a rent assessment for use of the landfill to the Solid Waste Division; the completion of that rental payment obligation and a process for examining the level of any future rents has been the subject of significant attention by some cities. Any model agreement developed through this process will need legal drafting and review, and separate agreement from each of the 37 cities, —some of whom are not active on MSWMAC. This effort will need to occur over the same general time frame that participants in the system are considering the Comprehensive Solid Waste Management Plan. Following completion of this process, the Executive will need to prepare a rate proposal based upon the revised agreements, gain approval from advisory bodies, and allow time for Council review. Waste haulers must also submit waste collection rates to state authorities. All of these activities need to be completed by about August of 2012 to allow for a January 2013 effective date of new rates.

The County is mandated by the existing interlocal agreements to construct, maintain and operate the transfer network and ultimate disposal. The transfer station upgrade is important to assure the capacity of the system to address worker and client safety, system functionality, and service needs. The importance of achieving regional consensus on interlocal agreements becomes increasingly clear as the rate implications of delay are confirmed.

The Rate Model[8]

As required by the proviso, the Executive prepared and transmitted a rate study, entitled Executive Proposed Solid Waste Disposal Fees 2012 as an attachment to the rate proposal. The rate study includes a rate model as an appendix. The rate model identifies, in tabular form, system expenditures and revenues by discrete categories. The model presents this information over the period through 2030.

Several key assumptions should be highlighted regarding the model:

- As directed by the proviso, the model assumes bond repayment over the period of the existing ILAs, — that is, repayment of bonded indebtedness for transfer system upgrade must be completed by the time of the ILAs expire in 2028.

[8] Executive Proposed Solid Waste Disposal Fees 2012, Table B-1 Rate Model through 2030 p.B-1 through B-3

- The model identifies rental payments through the period currently required for payment of the value obligation as recommended by the rental appraisal conducted by a third party appraiser and confirmed by the State Auditor; that payment obligation provides for payments through 2014. Following that year, the model does not identify any payment levels, though recognition of the extended life of the landfill, with the implication of expanded disposal capacity —and thus, extended disposal value, is footnoted.

Anticipated Rates through 2029

Excerpted from the rate model and summarized below are Anticipated Rates through 2029. (For presentation purposes, rates are presented for only those years that an adjustment is anticipated—in the intervening years, rates continue at the same level.)

Year	**2010**	**2012**	**2013**	**2016**	**2019**	**2022**	**2026**	**2029**
Rate per ton	$95	$108	$115	$123	$132	$133	$160.50	$133

The following points are emphasized:

- By 2026 a rate of $160.50 is anticipated based on assumptions in the model. This level would be necessary were bond repayment by 2028 required, in the absence of agreement on ILA extension

- This calculation does not include a Cedar Hills rental payment amount after 2014. The current rental payment is over $8 million annually—about 10% of Division expenditures. The Council has expanded capacity at Cedar Hills, with an anticipated closure date of 2025, rather than 2016. Including any reasonable level of payment is likely to increase the rate amount following 2014.

Debt Service

Excerpted and summarized below is the debt service line from the rate model (for presentation purposes, debt service for each third year is identified).

Year	**2010**	**2013**	**2016**	**2019**	**2022**	**2025**	**2028**
Debt Service	5,871,848	7,211,700	21,307,225	31,651,159	31,650,909	31,648,659	28,401,159

The debt service obligation of the rate model demonstrates an increase from $5.8 million to $28 million by 2028, the date that bond repayment must be completed under current assumptions regarding the ILA's expiration. This expense is a key driver behind the increasing rates identified in the rate model.

45-day Reserve

Also described in the rate model is the Executive's plan for addressing reserve requirements. Proposed annual budgets transmitted by the Executive are accompanied by Financial Plans that address, among other fund status conditions, the status of reserve funds—those fund pools, generally identified as "Undesignated Fund Balance", that are intended as backup revenue sources to support unanticipated operational

needs or emergencies. During the review of the 2011 County Budget, the Council paid particular attention to the trends of the Solid Waste Division's Undesignated Fund Balance. Historically, the Solid Waste Division has managed the Solid Waste Fund with the expectation of retaining an Undesignated Fund Balance reserve amount equal to the cost of operating the utility for 45 days, or the Target Fund Balance referenced below. The Executive Proposed 2011 Budget's Solid Waste Financial Plan addressed the undesignated fund balance policy as detailed in the excerpt below:

Year	2009 Actual	2010 Adopted	2010 Estimated	2011 proposed	2012 projected	2013 projected
Ending Undesignated Fund Balance	**$17,255,469**	**$9,429,430**	**$9,704,256**	**$4,340,199**	**$ 4,983,621**	**$ 2,798,277**
Target Fund Balance	**$ 8,153,211**	**$8,764,130**	**$8,514,130**	**$8,585,663**	**$ 8,671,519**	**$ 8,758,234**

According to the excerpt from that Financial Plan above, the reserve amount in 2013 is projected at $2.79 million, against a target of $8.75 million—almost $6 million less than the targeted 45-day reserve. This raised a question as to the capacity of the system to respond to emergencies.

This led the Council to include in its 2011 budget proviso a requirement that the rate to be proposed by the Executive "*remedies the forty-five day cash reserve shortfall identified in the financial plan".* The rate model included within the rate study transmitted with the proposed rate ordinance includes an entry addressing the target fund balance, ending fund balance and the "amount above target". *In sum, the proposed rate does result in an ending Undesignated Fund Balance that remains above the Target Fund Balance in each of the years portrayed between 2012 and 2030, though the margin is slender in several years.*[9] In particular, the rate proposal provides for an Ending Undesignated Fund Balance that exceeds the Target Fund Balance in 2012 and 2013—achieved by rate adjustments to $108 a ton in 2012, and $115 in 2013. This demonstrates an Executive strategy of keeping the fund balance above the Target Fund Balance in each year of the rate cycle.

Cedar Hills Closure

As noted above, the Council approved legislation in 2010 that opened additional acreage at the Cedar Hills Landfill to waste disposal, based on the assumption that extending the life of the landfill is the most economic approach to disposing of the region's waste.

Current projections are for landfill closure in 2025; closure of the landfill had been anticipated for 2018 prior to the Council's 2010 action to extend its capacity. The table below, created from information provided by the rate model, demonstrates the potential impact of the 2025 Cedar Hills closure—driving disposal costs from about $19.6 million in 2025, to almost $59 million in 2026. It should be noted that the disposal strategy

[9] Executive Proposed Solid Waste Disposal Fees 2012, Table B-1 Rate Model through 2030 p.B-1 through B-3

following the closure of the landfill has not been formally decided upon by the region, and thus costs identified below are uncertain—but that, under any likely scenario, disposal costs would increase substantially.

Year	2024	2025	2026	2027	2028	2029	2030
Fixed Disposal Costs	**3,820,232**	**3,908,097**					
Variable Disposal Costs	**15,404,172**	**15,758,468**					
Total	**19,224,404**	**19,666,565**					
Future Disposal Costs (after Cedar Hills Closes)			**58,798,599**	**60,783,820**	**62,834,377**	**64,958,430**	**67,158,333**

Landfill Reserve Fund, Capital Equipment Reserve Program Fund

The rate model also describes transfers to the Landfill Reserve Fund (LRF). Upon closure of the Cedar Hills Landfill, the County will be required to monitor and manage the facility for a period of 30 years, to assure protection against impacts to groundwater and other resources. Each year, the Solid Waste Division transfers funding into the Landfill Reserve Account to support such post-closure monitoring. The $4.8 million 2011 transfer increases to 10.6 million for 2025, the year of anticipated closure of the landfill.

The Capital Equipment Reserve Program ("CERP") Fund receives annual transfers to support equipment purchases and upgrades such as large earth moving equipment required to manage wastes at the landfill. The rate model shows transfers of $3.1 million to the CERP fund in 2011, increasing to $4.3 million in 2012, and declining again to $3.5 million in 2018, and $2.8 million in 2026 through the end of the rate period.

Timing

The proposed one-year rate would become effective in January 2012. Solid waste haulers, who pay the basic rate for deposit of waste at transfer stations, adjust their monthly rates paid by homeowners for residential collection based on this basic rate. Such residential collection rates require approval by the Washington Utilities and Transportation Commission, therefore requiring action by the Council, ideally by September.

INVITED: Kevin Kiernan, Director, Solid Waste Division, DNRP

ATTACHMENTS:

1. Striking Amendment to Proposed Ordinance 2011-0145 with Appendix B
2. Proposed Ordinance 2011-0145
   A. Executive Proposed Solid Waste Disposal Fees 2012
3. Executive's Transmittal Letter

S1

[July 26, 2011]

[mr]

Sponsor:

Proposed No.: 2011-0145

STRIKING AMENDMENT TO PROPOSED ORDINANCE 2011-0145, VERSION 1

On page 1, beginning on line 5, strike everything through page 6, line 96, and insert:

"PREAMBLE:

King County has been the regional provider of solid waste services since 1988.

King County strives to keep solid waste fees as low as reasonable, while covering the costs of effectively managing the solid waste system and providing service to the residents and businesses of King County including:

a. Protecting human health and the environment;

b. Extending the life of the Cedar Hills regional landfill;

c. Renovating the nearly fifty year old urban transfer system; and

d. Maintaining reserve funds at adequate levels.

The regional provision of solid waste services benefits the region's rate payers through efficiency and economies of scale, resulting in solid waste disposal rates that are among the lowest in the region.

The county is committed to delivering effective regional solid waste services and working collaboratively with the thirty-seven participating cities to develop and implement solid waste policies.

Regional solid waste services are more cost effective and efficient if supported by long-term commitments from entities participating in the system.

Ongoing collaboration in long-range system planning is best supported by early, unambiguous and full commitment to long-term system participation by parties participating in the regional system.

Extension of the current interlocal agreements between the county and thirty-seven cities would allow for long-range system planning and lower solid waste rates to finance planned improvements.

In the absence of long-term system commitments, the county will continue to deliver quality services and will consider policies addressing capital reserves, rates, appropriate capital developments, financing of capital improvements and construction sequencing.

The 2011 rate of $95.00 per ton was intended for the three-year period of 2008, 2009 and 2010. Through expenditure reductions and system efficiencies, the county has been able to provide solid waste services without a rate increase for an additional year.

The current rate will not support the expenses of the system beyond 2011. This measure proposes to increase the basic fee in 2012 from $95.00 to $109 per ton, projected as a one-year rate in anticipation of further revision following decisions by participating cities on whether to extend to solid waste interlocal agreements.

The impact of this proposed increase on the average residential customer with one-can collection service would be approximately $0.82 per month.

It is in the region's interest that the executive continue to work with participating cities to extend the term for the interlocal agreements to allow for long-term financing of planned capital improvements and to make other such modifications to the interlocal agreements that the parties agree to be appropriate.

It is in the region's interest that the executive and participating cities either execute extension of the interlocal agreements or determine not to enter into extensions by the end of the first quarter of 2012 so that the executive may work with participating cities to develop a multiyear rate proposal for transmittal to the council no later than July 1, 2012.

This ordinance responds to the 2011 Budget Ordinance, Ordinance 16984, Section 101, Proviso P2.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Ordinance 12564, Section 2, as amended, and K.C.C. 10.12.021 are each hereby amended as follows:

All persons using county-operated solid waste disposal facilities shall pay the service fees in the following schedules:

A. Service fees for the use of disposal sites with scales, excluding Cedar Hills, shall be:

1. Solid waste disposal:

Passenger cars	$((~~15.31~~)) 17.49 per entry
Other vehicles	$((~~95.00~~)) 109.00 per ton
Charitable organizations	$((~~73.25~~)) 84.00 per ton
Minimum	$((~~15.31~~)) 17.49 per vehicle
Charitable organizations, minimum charge	$((~~11.69~~)) 13.39 per entry

2. Deposit of source-separated yard waste at yard waste collection areas, other organics at organics collections areas, clean wood at clean wood collection areas or any combination thereof:

Passenger cars	$13.25 per entry
Other vehicles	$82.50 per ton
Minimum charge	$13.25 per vehicle

3. Deposit of white goods at white goods collection areas:

White goods without regulated refrigerants	$10.00 per unit
White goods with regulated refrigerants	$24.00 per unit

B. Service fees for the use of disposal sites without scales, such as mobile yard waste facilities, shall be based upon the cubic yard or fraction thereof as follows:

1. Solid waste disposal:

Passenger cars	$((~~15.31~~)) 17.49 per entry

Other vehicles

Compacted wastes $((~~27.55~~)) 31.61 per cubic yard

Uncompacted wastes $((~~16.15~~)) 18.53 per cubic yard

Minimum charge $((~~15.31~~)) 17.49 per vehicle

2. Deposit of source-separated yard waste at yard waste collection areas, other organics at organics collections areas, clean wood at clean wood collection areas or any combination thereof:

Passenger cars $13.25 per entry

Other vehicles

Compacted wastes $24.00 per cubic yard

Uncompacted wastes $14.00 per cubic yard

Minimum charge $13.25 per vehicle

C. Service fees at the Cedar Hills landfill shall be:

Cedar Hills Regional Direct $((~~80.00~~)) 93.50 per ton

Other vehicles $((~~95.00~~)) 109.00 per ton

Disposal by other vehicles is at the discretion of the solid waste manager.

D. A moderate-risk waste surcharge shall be added to all solid waste disposed by nonsolid waste collection entities using county operated solid waste facilities. The fee schedule is as follows:

1. For sites with scales:

Self-haulers $((~~3.50~~)) 4.73 per ton

Minimum charge $((~~1.34~~)) 1.81 per entry

Passenger cars $((~~1.34~~)) 1.81 per entry

2. For sites without scales:

Compacted	$((~~0.77~~)) 1.04 per cubic yard
Uncompacted	$((~~0.44~~)) 0.59 per cubic yard
Minimum charge	$((~~1.34~~)) 1.81 per entry
Passenger cars	$((~~1.34~~)) 1.81 per entry

E. A special waste fee shall be charged for special waste including infectious waste treated and handled in accordance with King County Board of Health Code 10.28.070, asbestos-containing waste material, problem wastes and other additional wastes requiring clearances in accordance with King County Board of Health Code Title 10 or rules promulgated by the department.

Special waste fee	$145.00 per ton
Minimum charge	$23.20 per entry

F. In the absence of exact weights or measurements, the estimate of the manager is binding upon the user.

G. The division director may establish fees for handling and processing of recyclable materials for which no other fee has been established by ordinance. Consistent with WRR-1, WRR-2, WWR-4 and WRR-36, the fees need not recover the full cost of handling and processing."

On Attachment A, after page B-3, insert "Appendix B Table B-2 Rate Scenarios for Different Bonding Periods"

EFFECT: Increases the Basic Rate to $109/ton, rather than $108/ton as proposed by the Executive. Increases the Passenger Car rate to $17.49 per entry, rather than $17.28 per entry as proposed by the Executive. Other proposed rates for minimum charges, charitable organizations, rates at sites without scales, regional direct rates, and moderate risk waste rates, are also increased to respond to the recommended moderate risk waste increase proposed by the Board of Health, and to the revenue impacts of less-than-anticipated interest rates. The striking amendment also replaces the "Statement of Facts" with a "Preamble" that notes King County's role as regional solid waste provider, and describes the county's efforts to keep rates as low as possible, while addressing key system values of protection of human health and the environment, extending the life of the Cedar Hills Landfill, renovating the transfer system, and keeping reserve funds at appropriate levels. The preamble addresses the benefits of a regional solid waste system, the County's commitment to collaboration and service delivery, the need for long-term commitment by participants in the regional system, and the importance of early, unambiguous and full commitment to long-term system participation in support of collaboration. It further describes the need for extension of the interlocal agreements. The preamble notes that, in the absence of such extensions, the county intends to continue to deliver quality services and needed capital development with competitive rates, and will consider policies addressing capital reserves, financing, and construction sequencing. The intended three year term of the existing rate, and its actual four-year application, is noted; the inability of the current rate to support system costs beyond 2011 is stated. The preamble further indicates that this proposal increases

the Basic Fee from $95 per ton to $109 per ton, projected for a one year period in anticipation of further revision following city decisions on extension of the interlocal agreements. The cost impact of the rate proposal on the average one-can residential customer--$0.82 monthly--is described. The region's interest in continued work with participating cities towards extended ILAs, and for execution of ILA extension or a determination not to extend, by the end of the first quarter of 2012, is stated. Finally, it's noted that the rate proposal is a response to the 2011 Budget Ordinance, Ordinance 16984, Section 101, Proviso P2.

The Solid Waste Rate Study (Attachment A) is amended to attach Table B-2, which illustrates the rate impact of various bonding periods, including 20-year and 30-year bonding periods.

Appendix B Table B-2 Rate Scenarios for Different Bonding Periods

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
From Rate Study																					
1999 Basic Fee plus inflation	111.5	113.76	116.11	118.58	121.20	124.08	126.99	129.91	132.9	136	139.09	142.28	145.56	148.90	152.33	155.83	159.4	163.08	166.84		
Basic Fee	108	115	115	115	123	123	123	132	132	132	133	133	133	133	160.5	160.5	160.5	133	133		
4-year rate scenarios for different bonding periods (assumes BANS through 2015)																					
Basic Fee - bonds paid by 2028	108	115	115	115	115	130	130	130	130	133	133	133	133	153	153	153	153	133	133	133	133
Basic Fee - 20-year bonds	108	115	115	115	115	121	121	121	121	126	126	126	126	146	146	146	146	155	155	155	155
Basic Fee - 30-year bonds	108	115	115	115	115	117	117	117	117	122	122	122	122	144	144	144	144	152	152	152	152

[Blank Page]

King County

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

August 15, 2011

Ordinance

Proposed No. 2011-0145.1 **Sponsors** Phillips

AN ORDINANCE relating to solid waste fees charged at recycling and transfer facilities and at the Cedar Hills regional landfill; and amending Ordinance 12564, Section 2, as amended, and K.C.C. 10.12.021.

STATEMENT OF FACTS:

1. The solid waste division of the department of natural resources and parks strives to keep solid waste fees as low as reasonable, while covering the costs of effectively managing the solid waste system and providing service to the residents and businesses of King County including:

a. Protecting human health and the environment;

b. Extending the life of the Cedar Hills regional landfill;

c. Renovating the nearly fifty year old urban transfer system; and

d. Maintaining reserve funds at adequate levels.

2. The solid waste division is proposing to increase the basic fee from $95.00 to $108.00 per ton, effective January 1, 2012, through December 31, 2012.

3. The impact of the proposed increase on the average residential customer with one-can collection service would be approximately $0.76 per month.

4. A comparison to the fees charged by other jurisdictions shows that King County's fee would remain among the lowest in the region.

5. The current rate of $95.00 per ton was intended for the three-year period of 2008, 2009 and 2010, and will be in effect for an additional year.

6. The current rate will not support the expenses of the system beyond 2011.

7. This ordinance responds to the 2011 Budget Ordinance, Ordinance 16984, Section 101, Proviso P2.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Ordinance 12564, Section 2, as amended, and K.C.C. 10.12.021 are each hereby amended as follows:

All persons using county-operated solid waste disposal facilities shall pay the service fees in the following schedules:

A. Service fees for the use of disposal sites with scales, excluding Cedar Hills, shall be:

1. Solid waste disposal:

Passenger cars	$((~~15.31~~)) 17.28 per entry
Other vehicles	$((~~95.00~~)) 108.00 per ton
Charitable organizations	$((~~73.25~~)) 83.25 per ton
Minimum	$((~~15.31~~)) 17.28 per vehicle
Charitable organizations, minimum charge	$((~~11.69~~)) 13.32 per entry

2. Deposit of source-separated yard waste at yard waste collection areas, other organics at organics collections areas, clean wood at clean wood collection areas or any combination thereof:

Passenger cars	$13.25 per entry
Other vehicles	$82.50 per ton
Minimum charge	$13.25 per vehicle

3. Deposit of white goods at white goods collection areas:

White goods without regulated refrigerants	$10.00 per unit
White goods with regulated refrigerants	$24.00 per unit

B. Service fees for the use of disposal sites without scales, such as mobile yard waste facilities, shall be based upon the cubic yard or fraction thereof as follows:

1. Solid waste disposal:

Passenger cars	$((~~15.31~~)) 17.28 per entry
Other vehicles	
Compacted wastes	$((~~27.55~~)) 31.32 per cubic yard
Uncompacted wastes	$((~~16.15)~~) 18.36 per cubic yard
Minimum charge	$((~~15.31)~~) 17.28 per vehicle

2. Deposit of source-separated yard waste at yard waste collection areas, other organics at organics collections areas, clean wood at clean wood collection areas or any combination thereof:

Passenger cars	$13.25 per entry

Other vehicles	
Compacted wastes	$24.00 per cubic yard
Uncompacted wastes	$14.00 per cubic yard
Minimum charge	$13.25 per vehicle

C. Service fees at the Cedar Hills landfill shall be:

Cedar Hills Regional Direct	$((~~80.00~~)) 92.50 per ton
Other vehicles	$((~~95.00~~)) 108.00 per ton

Disposal by other vehicles is at the discretion of the solid waste manager.

D. A moderate-risk waste surcharge shall be added to all solid waste disposed by nonsolid waste collection entities using county operated solid waste facilities. The fee schedule is as follows:

1. For sites with scales:

Self-haulers	$3.50 per ton
Minimum charge	$1.34 per entry
Passenger cars	$1.34 per entry

2. For sites without scales:

Compacted	$0.77 per cubic yard
Uncompacted	$0.44 per cubic yard
Minimum charge	$1.34 per entry
Passenger cars	$1.34 per entry

E. A special waste fee shall be charged for special waste including infectious waste treated and handled in accordance with King County Board of Health Code 10.28.070, asbestos-containing waste material, problem wastes and other additional

wastes requiring clearances in accordance with King County Board of Health Code Title 10 or rules promulgated by the department.

Special waste fee	$145.00 per ton
Minimum charge	$23.20 per entry

F. In the absence of exact weights or measurements, the estimate of the manager is binding upon the user.

G. The division director may establish fees for handling and processing of recyclable materials for which no other fee has been established by ordinance. Consistent

with WRR-1, WRR-2, WWR-4 and WRR-36, the fees need not recover the full cost of handling and processing.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____

Larry Gossett, Chair

ATTEST:

_____

Anne Noris, Clerk of the Council

APPROVED this _____ day of _____, _____.

_____

Dow Constantine, County Executive

Attachments: A. Executive Proposed Solid Waste Disposal Fees-2011--March 2011

2011-0145
Attachment A

Executive Proposed

Solid Waste Disposal Fees – 2012

March 2011

King County
Department of Natural Resources and Parks
Solid Waste Division

Executive Proposed

Solid Waste Disposal Fees – 2012

March 2011

King County

Department of Natural Resources and Parks
Solid Waste Division

CONTENTS

INTRODUCTION

The King County Solid Waste Division (the division) is proposing a rate increase that would be effective January 1, 2012. Under this proposal, the Basic Fee would increase from $95.00 to $108.00 per ton for the one-year period of 2012. With this increase, the effect on the average residential customer with weekly one-can collection service would be about $0.76 per month.

The rate increase is necessary to continue to fund safe, effective solid waste operations. The current rate of $95.00 per ton was intended for the three-year period of 2008, 2009, and 2010; however, as a result of efficiencies the division was able to defer the increase for an additional year. The current rate will not support the expenses of the system beyond 2011.

The county's solid waste system is funded primarily by the fees, called tipping fees, charged at county transfer facilities and the Cedar Hills Regional Landfill. Since 2007, the solid waste system has experienced an approximate 18 percent decline in tonnage received and an associated decline in revenue; the decline in tonnage is primarily attributable to the general economic downturn. In response to reduced revenue, and to hold the current rate for an additional year, the division has implemented numerous efficiencies and budget controls, including adjusting operating hours and reducing staffing. The division's objective is to keep fees as low as reasonable and to keep growth in rates at or below the rate of inflation, while covering the costs of effectively managing the system and providing service to the residents and businesses of King County, including:

- Protecting human health and the environment
- Extending the life of the Cedar Hills Regional Landfill
- Renovating the nearly 50 year old urban transfer system
- Maintaining reserve funds at adequate levels

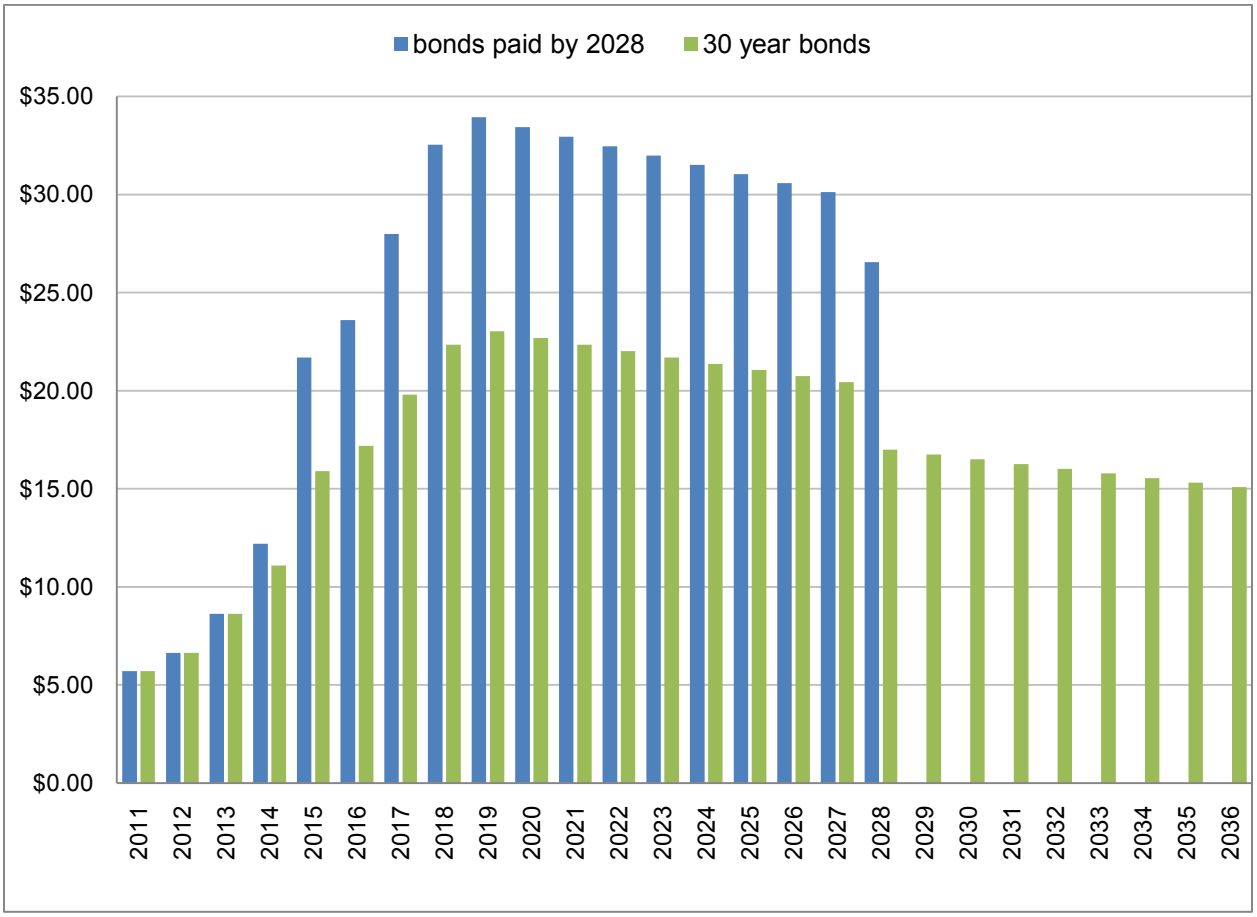
A new rate for 2012 will provide the funds necessary to operate the system at the current level of service, while allowing the cities and the county time to work in partnership on long-term agreements that will keep fee increases to a minimum while allowing for essential improvements to the solid waste transfer system.

Interlocal Agreements

The current Interlocal Agreements (ILAs) between 37 cities (all cities in King County except Seattle and Milton) and the county will expire in 2028. As the county prepares to issue bonds to finance the renovation of the transfer system, as approved under the cooperatively developed 2006 *Solid Waste Transfer and Waste Management Plan* (Transfer Plan), ensuring adequate revenue to repay the bonds is critical. Because the ILAs require participation in the county's solid waste system, all bonds must be repaid before the expiration of the ILAs. This could be accomplished through shorter bonds that are repaid by 2028 or through longer ILAs and bonds of greater length. Because long-term bonds will not be issued until 2014, the 2012 rate is not affected by the decision on which of these courses to follow. However, the effect on rates beyond 2012 could be significant.

Figure 1 below, shows an example of the debt service that would be added to the rate depending on the term of bonds. Bonds that would be repaid by 2028, when the current ILAs expire, would result in higher rates in the short-term. Bonds with a 30-year term would result in lower rates in the short-term with payment over a longer time period and a larger overall debt service total. Information about the Capital Improvement Program is provided in Appendix C: Construction Fund.

Figure 1. ***Example – debt service varies with the term of bonds***



Note: Debt for 30-year bonds would continue to 2048.

Cities and the county are discussing potential changes to the ILAs, including a possible extension of existing ILAs or new ILAs with longer terms, and expect to conclude discussions later this year. Any changes to ILAs that would affect the rate will be incorporated into the next rate study.

Proposed 2012 Fees

The following fees are proposed to increase on January 1, 2012.

- **Basic Fee:** The fee charged to commercial collection companies that collect materials curbside and to residential and business self-haulers who bring solid waste to the transfer facilities
- **Regional Direct Fee:** The fee charged to commercial collection companies that haul solid waste to the Cedar Hills landfill from their own transfer stations and processing facilities, thus bypassing county transfer stations

The Basic Fee accounts for about 98 percent of tipping fee revenues. It is used as the foundation for calculating the Regional Direct Fee. Table 2 summarizes the changes that are proposed.

Estimated effect of the fee increase on the residential one-can rate

The Basic Fee of $95.00 per ton has been in effect since January of 2008. A change to $108.00 per ton beginning in January 2012 will increase the cost for the average one-can residential customer by about $0.76 per month.

The average garbage can placed at the curb contains 27 pounds of waste. Assuming 52 weeks of pick-up service, the monthly average weight is 117 pounds, or 0.0585 tons. At $108.00 per ton, the charge for disposal at a county facility rises from $5.56 to $6.32 per month. This charge is only one component of the customer's bill; the customer is also charged for the cost of collection, recycling, and other charges, which are not determined by the division.

Table 1. ***Comparison of current and proposed tipping fees***

Tipping Fee	Last Change in Fee	Current Fee	Proposed Fee	Change in Fee	Percent Change
		$ per ton			
Basic Fee	2008	$ 95.00	$ 108.00	$ 13.00	12%
Regional Direct	2008	$ 80.00	$ 92.50	$ 12.50	13.5%

A rate study for 2013 through 2015 will begin later this year after key decisions about the term of the ILAs. Also, later this year there will be a new appraisal of the Cedar Hills property. The current payment schedule for the rent the division pays to the County General Fund for use of the Cedar Hills property ends in 2014. Any change in the rent, resulting from the new appraisal, will be incorporated into the next rate.

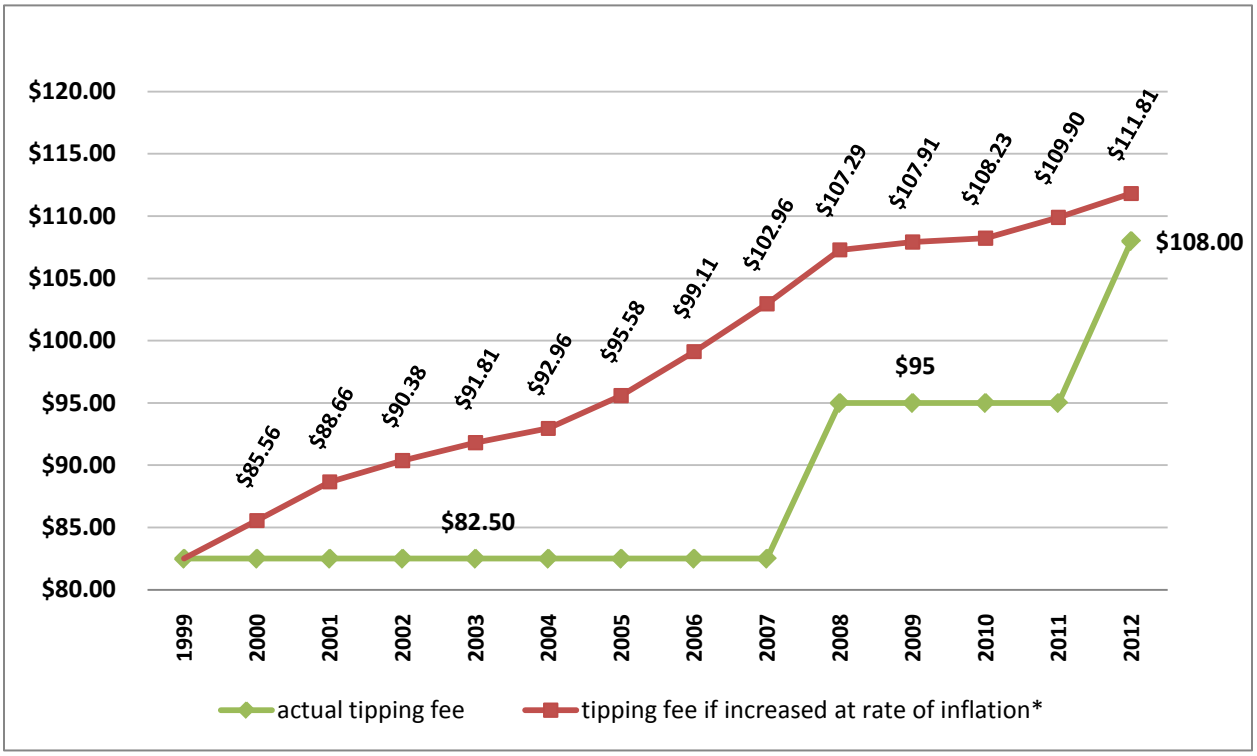
Changes to the special waste and yard/wood waste fees are not being proposed at this time – in 2010, the combined revenue from these two sources was less than one percent of total division revenue. The yard/wood waste fee and fees for other recyclable materials will be included in the next rate study.

KEY FACTORS IN CALCULATING THE BASIC FEE

An econometric rate model is used to determine the tipping fees required to support the operational and other costs of managing the division. First, the division's expenditures over the rate period are estimated, including operating and administrative costs and transfers to reserve funds; then, anticipated revenues from all non-tipping fee sources are subtracted from the total expenditures to arrive at the amount of tipping fee revenue that will be needed to support the division over the rate period. That amount is divided by the forecasted tons to determine the per-ton Basic Fee and the Regional Direct Fee is derived using the Basic Fee as a foundation.

What follows is background information and a more detailed discussion of how the division arrives at a Basic Fee that 1) fulfills the need to maintain an efficient and cost-effective solid waste system, and 2) meets the county's commitment to keep increases at or below the rate of inflation (with 1999 as the base year) as illustrated in Figure 2. This section describes the various categories of revenues, expenditures, and fund transfers that are used in the rate model to calculate the Basic Fee. A description of the rate model is provided in the next section.

Figure 2. ***Objective – Keep growth in rates at or below the rate of inflation***



*Seattle CPI-U

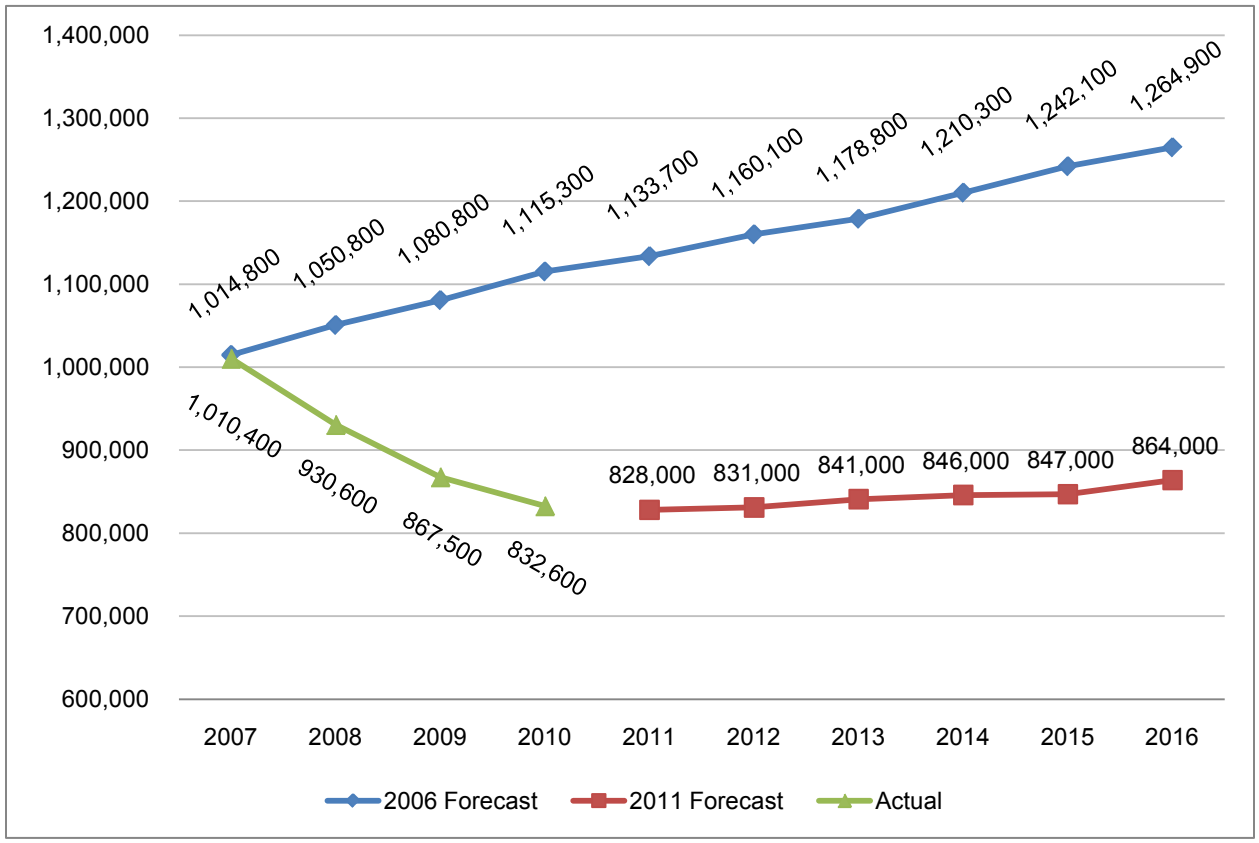
Tonnage Forecast

A primary driver in determining disposal fees is the forecast of solid waste tonnage. The division uses a planning forecast model to predict future waste generation over a 20-year period. Waste generation is defined as *waste disposed* + *materials recycled*. The planning forecast model relies on established statistical relationships between waste generation and various economic and demographic variables that affect it, such as population, employment, and income, among others.

However, beginning in late 2007, a nationwide financial crisis – which is now being called the Great Recession – created a great deal of uncertainty and unpredictability in variables used in the division's forecasting model to predict the short-term (1- to 5-year) trends in solid waste generation. To respond to this uncertainty, the division has temporarily adjusted its approach to forecasting, using a more flexible system of ongoing monitoring while reviewing the model's assumptions.

Tonnage has declined by about 18 percent since 2007 and is significantly less than the 2006 rate study forecast. Further declines are not expected in 2012; however, growth is expected to be modest over the next several years.

Figure 3. ***Tonnage decline since 2007***



Appendix A provides more information on forecast and tonnage forecasts through 2030.

Revenues

The King County Solid Waste Division is an enterprise fund managing nearly all of its expenses with revenues from fees collected at its transfer facilities and the landfill. About 95 percent of the division's revenue comes from these fees; the remainder comes from a few additional sources. The most significant of these is the Local Hazardous Waste Management Program (LHWMP), which pays for the handling of household hazardous waste. Additional sources of revenue include interest earned on fund balances; the construction and demolition (C&D) surcharge (see sidebar); revenue from the sale of recyclable materials received at division transfer facilities and from a fee on recyclables collected in unincorporated areas; Washington State Department of Ecology grants to help clean up litter and illegal dumping throughout the county, and to support waste prevention and recycling (WPR). Beginning in mid-2009, the division also began receiving revenue from the sale of landfill gas from Cedar Hills. Based on economic and market conditions, revenues from the sale of recyclable materials and interest earned can vary considerably.

Expenditures

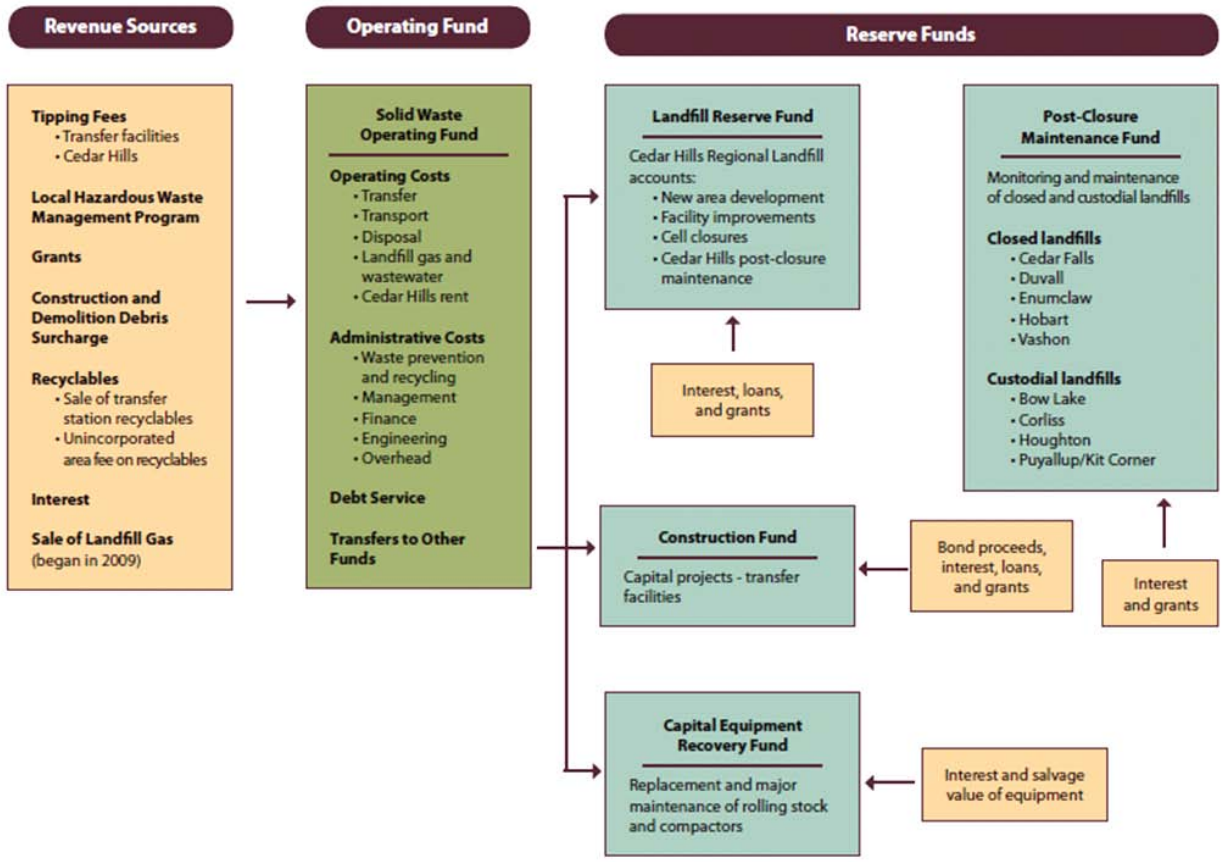
The fees charged at county facilities, called tipping fees, pay for the operation and maintenance of transfer and disposal facilities and equipment, education and promotion related to WPR, grants to cities to support WPR efforts, and administrative operating expenses and overhead. Tipping fees also pay for the construction of transfer facilities; although bonds or loans may be used for large capital projects, repayment of the debt is funded by tipping fees. Finally, the tipping fees fund reserves that cover the ongoing costs of landfill development, closure, and post-closure care and remediation; to replace equipment and vehicles; and to contribute to construction of transfer system projects. The reserve funds are discussed in more detail later in this section. The fund structure is illustrated in Figure 4.

Construction & demolition debris surcharge

King County has contracts with two private companies – Allied Waste and Waste Management – to manage the majority of the county's C&D. Customers disposing of C&D at the facilities operated by these companies pay a per-ton fee based on the type of material. Fees for recyclable C&D are lower than the fees for non-recyclable C&D or mixed loads.

Allied Waste and Waste Management pay the county a $4.25 per ton surcharge for all C&D debris generated in the county's jurisdiction; the surcharge is established by county code KCC 10.30.050 and required in the contracts. The surcharge is used to pay incentives to these companies based on the amount of C&D material they recycle. To date, the total amount paid to the county has surpassed the amount paid back in incentives. The surcharge is set to expire in 2014 when the current C&D contracts expire.

Figure 4.
Solid Waste Division fund structure



Division expenditures, paid through the Solid Waste Operating Fund, can be divided into four broad categories: operating costs, administrative costs, debt service, and transfers to other funds.

Operating Costs

Operating costs include the day-to-day expenses for transfer, transport, and landfill operations. This includes the maintenance of equipment and facilities, and management of landfill gas and wastewater. It also includes rent the division pays to the county for use of the Cedar Hills landfill property. For forecasting purposes, these costs are divided into variable and fixed components. Variable components are those affected by inflation and the amount of tonnage received at solid waste facilities. Fixed costs are generally affected by inflation alone.

Administrative Costs

This cost category includes administrative functions that support operations, such as engineering, finance, and management. It also includes grants to the cities and other WPR programs and services provided by the division.

A new cost in this category would be an additional grant program as proposed in the 2011 *Comprehensive Solid Waste Management Plan* (Comp Plan). The division would work collaboratively with cities and other stakeholders to develop this new competitive grant program that would be available to cities and collection companies to support programs that eliminate disposal of materials with economic value. For this rate proposal, the amount of the grant program would be $500,000 in 2012.

Debt Service

Debt service is the payment of interest and principal on bonds and loans. General obligation (GO) bonds backed by the full faith and credit of the county's General Fund have been issued to pay for development of major transfer facility capital projects. It is anticipated that with approval of the King County Council, GO bonds will be issued for future transfer facility capital projects. Landfill capital projects are not funded through debt financing, but through the Landfill Reserve Fund discussed later in this section.

Transfers to Other Funds

Transfers from the Solid Waste Operating Fund to reserve funds constitute a portion of the division's costs. These funds were established to ensure that the division can meet future obligations, or expenses, some of which are mandated by law. Contributions to reserve funds are routinely evaluated to ensure they are adequate to meet short- and long-term needs. Paying into reserve funds stabilizes the impact on rates for certain expenses by spreading the costs over a longer time period, and ensures that customers who use the system pay the entire cost of disposal. The four reserve funds are discussed below. Additionally, based on direction from the King County Council, the division is proposing to establish a new reserve fund that would support expenses associated with managing debris generated by an emergency.

The division deposits bond proceeds and contributions from the Operating Fund into the **Construction Fund** to finance new construction and major maintenance of division transfer facilities. Contributions from the Operating Fund result in less borrowing and consequently a lower level of debt service. However, during times of economic pressure contributions to this fund may be reduced in order to maintain lower fees in the short term, as was done in 2011. Information on the Capital Improvement Program is provided in Appendix C: Construction Fund.

The **Capital Equipment Recovery Program** (CERP) is codified in KCC 4.08.280. The purpose of the CERP is to provide adequate resources for replacement and major maintenance of solid waste rolling stock (primarily long-haul trucks and trailers) and compactors. New equipment is purchased from the Operating Fund, but after the initial purchase, replacements are funded from the CERP.

By accumulating resources in the CERP, the division ensures that it is able to replace needed equipment while leveling the impact on rates from variable expenditures even with fluctuations in revenue. Annual contributions to the CERP are calculated by projecting future replacement costs, salvage values, and equipment life. Contributions are adjusted to reflect changes in facilities and operations that affect equipment needs. The contributions are held in an account, earning interest, until needed. More information on the CERP is provided in Appendix D.

The **Landfill Reserve Fund** (LRF), codified in KCC 4.08.045, covers the costs of four major accounts maintained for the Cedar Hills landfill, shown below. The new area development and facility improvement accounts ensure sufficient funds for capital projects without bonding. The cell closure and post-closure maintenance accounts are mandated by federal and state law.

Extending the life of the Cedar Hills landfill

An important development during the current rate period was approval of a plan to extend the life of the Cedar Hills Regional Landfill by constructing a new disposal area. As in the past, the new area will not be financed by bonds, but via the Landfill Reserve Fund. Contributions to this fund will increase by about $2.00 per ton in order to finance the new area's construction, closure, and post-closure maintenance.

With development of the new area, the landfill will reach capacity and close in approximately 2024, although there is opportunity for additional landfill development should that be desirable. The longer life of the landfill will defer the eventual transition to some other, likely more costly method of disposal.

- *New area development account*: Covers the costs for planning, designing, permitting, and building new refuse cells.
- *Facility improvements account*: Covers a wide range of capital investments required to sustain the infrastructure and operations at the landfill, such as enhancements to the landfill gas and wastewater systems.
- *Cell closures account*: Covers the cost of closing refuse cells, or operating areas, within the landfill that have reached capacity. These contributions help the division prepare incrementally for the cost of final closure of the entire landfill.
- *Post-closure maintenance account*: Accumulates funds to pay for post-closure maintenance of the Cedar Hills landfill for at least 30 years.

The sum of all four accounts, based on projected cost obligations, makes up the LRF rate charged as part of the tipping fee. Projected cost obligations are based on the current plan for the landfill. More detail on the LRF is provided in Appendix E.

When Cedar Hills closes, the division will discontinue its contributions to the LRF. At closure, the balance of the LRF will be transferred to the Post-Closure Maintenance Fund.

The **Post-Closure Maintenance Fund** is a separate fund that pays for the maintenance and environmental monitoring of nine closed and custodial landfills in the county for which the division has responsibility. Federal and state laws require this fund for closed landfills; the county has included funding for custodial landfills as well. At this time, the balance of this fund is sufficient to cover anticipated post-closure expenses, thus no money is currently being transferred to the fund. The division periodically reviews the fund to ensure that it remains ample for future needs. Once the Cedar Hills landfill closes, the balance of the LRF will be transferred to this fund to pay for Cedar Hills' post-closure expenses.

RATE MODELING PROCESS

The division projects tipping fees using five economic and financial models – the tonnage forecasting model; the LRF, construction, and CERP models; and the operating fund model which incorporates the other models as well as projected expenditures and revenues. These models employ various assumptions and projections to calculate detailed revenues and expenses over the rate period, as well as over the longer-term. The tipping fees are calculated such that:

- Revenues are sufficient to cover the daily costs of operations and services as required by a variety of regulatory and legal mandates
- Funds are available to provide for landfill maintenance and closure, as well as capital investment projects for the transfer and disposal system
- An adequate Operating Fund balance is maintained for contingencies, such as natural disasters or other events, that might disrupt the flow of revenue required to keep the entire system operational for the protection of public health and the environment
- Any increase in the Basic Fee meets the county's commitment to keep increases at or below the rate of inflation

Although the immediately relevant rate period is for 2012 only, these various models project the division's revenues and expenses out to the year 2030 and beyond. Note, however, that projections become increasingly less reliable further out. As stated above, various assumptions and projections are entered into the models.

Financial Assumptions: Financial assumptions used in the model include primarily estimates of future interest rates and rates of inflation.

Tonnage Projections: As discussed above, the most fundamental input to the Solid Waste Operating Fund model is the tons of waste expected to be disposed at division facilities during each year of the planning horizon. The annual projection of tons is multiplied by the tipping fees to calculate revenues.

Sources of Revenues: The majority of revenues are from tipping fees, which are calculated based on the forecast of solid waste tonnage and the fees charged for each type of waste. In addition, other sources of revenue are forecast over the rate period.

Costs: For each year of the planning horizon, projections are made for the division's Operating and Administrative costs, for the transfers to reserve funds and for debt service related to the transfer system construction program.

Target Fund Balance: The model considers that when all revenues and expenditures are taken into account, the division would retain an average 45-day reserve in the fund balance. This represents a change from past practice, which anticipated a balance below this level in the last year of a rate period.

CALCULATION OF PROPOSED TIPPING FEES

This section presents the calculation of the Basic and Regional Direct Fees for 2012.

Tonnage

The tonnage forecast is the first input to the tipping fee calculation. As of February 2011, 831,000 tons are forecast to enter the county's solid waste system in 2012.

Table 2. ***2012 tonnage forecast by site***

	Tons
Transfer facilities	
Algona Transfer Station	132,000
Bow Lake Transfer Station	266,200
Enumclaw Recycling & Transfer Station	20,100
Factoria Transfer Station	128,500
Houghton Transfer Station	145,500
Renton Transfer Station	60,600
Shoreline Recycling & Transfer Station	43,700
Vashon Recycling & Transfer Station	8,000
Cedar Falls Drop Box	3,400
Skykomish Drop Box*	900
Subtotal	**808,000**
Cedar Hills Regional Landfill direct	
Regional direct waste	6,000
Special waste	2,000
Other municipal solid waste	10,000
Subtotal	**18,000**
Total	**826,000**
Yard waste/organics (transferred to a compost facility)	5,000
System total	**831,000**

* Solid waste collected at the Skykomish drop box is transported to the Houghton transfer station for disposal. Projected tons for Skykomish are shown for illustrative purposes, but are counted in the Houghton tonnage figures.

Basic Fee

Using the tonnage forecast, projections of revenue from other sources, and projected costs, a Basic Fee is calculated. That figure is then rounded up to the nearest $.25 and a fee is proposed.

Table 3. ***Basic Fee – 2012 expenditures and per ton cost***

Expenditures	Cost	Cost per ton
Fixed Operating Costs		
(a) Disposal	11,801,479	14.29
(b) Transfer & Transport	16,718,203	20.24
Variable Operating Costs		
(a) Disposal	2,926,765	3.54
(b) Transfer & Transport	11,596,092	14.04
Administrative Costs		
(a) Finance & IT	5,825,371	7.05
(b) SWD Administration	4,479,417	5.42
(c) Overhead	3,492,189	4.23
(d) Strategic Planning & Communications	1,653,071	2.00
(e) Legal	363,621	0.44
Recycling & Environmental Services		
(a) General Programs	4,221,151	5.11
(b) Grants to Cities	1,185,803	1.44
(c) Competitive Grants (NEW)	500,000	0.61
Reserves		
Landfill Reserve Fund	6,824,214	8.26
Capital Equipment Recovery Program Fund	4,300,000	5.21
Construction Fund	2,000,000	2.42
Emergency Fund (NEW)	100,000	0.12
Rent - Cedar Hills	8,867,391	10.74
Debt service	5,076,500	6.15
B & O Tax	1,513,649	1.83
Total expenditures	$ 93,444,914	$ 113.13
Adjustments		
Public Health Fee Increase	413,000	
Fund Balance	(2,585,083)	
Other Revenue	(2,169,100)	
Adjusted total	$ 89,103,730	$ 107.87
Basic fee calculated		$ 107.87
Basic fee proposed		$ 108.00

Once the Basic Fee is established, the Regional Direct Fee can be calculated.

Regional Direct Fee

The Regional Direct Fee is the fee charged to commercial collection companies that bypass the county's transfer stations by hauling solid waste in large refuse trailers directly to the Cedar Hills landfill from their own transfer stations and processing facilities.

This fee is based on the Basic Fee, minus the marginal cost of handling this waste at the county transfer stations. Marginal costs include added hours at the Bow Lake transfer station and the cost of operating and maintaining the trucks that transport the additional waste.

Table 4. ***Regional Direct Fee calculation***

Transportation	Cost per ton
Truck driver labor	$ 6.12
Fuel	$ 2.45
Equipment	$ 2.26
Transfer	
Transfer station operator labor	$ 1.74
Scale operator labor	$ 1.44
Equipment, fuel, and utilities	$ 1.40
Total marginal cost	$15.41

Basic Fee	$108.00
Less marginal cost (rounded)	$ 15.50
Regional Direct Fee	**$ 92.50**

APPENDIX A

Tonnage Forecast Through 2030

TONNAGE FORECAST

To predict solid waste generation over the long term, the planning forecast model relies on established statistical relationships between waste generation and various economic and demographic variables that affect it, such as:

- Population of the service area
- Employment
- Household size in terms of persons per household
- Per capita income (adjusted for inflation)

Increases in population, employment, and per capita income and decreases in household size typically lead to more consumption and hence more waste generated. Studies indicate that for the long-term planning forecast, from 2010 through 2030, the following trends are expected:

- Population is expected to grow at a steady rate of 1 percent per year. Population growth is directly correlated with the amount of waste generated, i.e., more people = more waste generated.
- Employment is expected to increase following recovery from the recession at an annual rate of 1.8 percent. Increased employment activity typically leads to an increase in consumption and waste generation.
- Household size is expected to decrease from an average of about 2.6 persons per household to 2.4 persons per household. The trend in household size reflects a nationwide move toward smaller family size and an aging population. Because a "household" implies a certain level of maintenance, mail, purchasing, and so on, a decrease in household size tends to increase waste generation per capita.
- Per capita income is expected to grow by about 2 percent per year through 2030, adjusted for inflation. As with employment activity, increases in income typically lead to an increase in consumption and waste generation.

Data Sources: The data used are the most recent available. Projections for population and household size are based on data developed by the Puget Sound Regional Council (PSRC; 2006). Data provided by PSRC are based on U.S. Census and other data sources and developed in close cooperation with the county and the cities. The income and employment data are provided by the local economic forecasting firm of Dick Conway and Associates (August 2010).

Developing the tonnage forecast is a two-step process, in which waste disposal and waste diversion are calculated separately. In the first step, an econometric model is used to relate historical data for waste disposal and recycling to past demographic and economic trends in the region. Once these relationships are established, the model can be used to project future waste generation based on expected trends over the planning period. This first step produces a baseline disposal forecast, which assumes that the percentage of waste recycled remains constant.

In the second step, goals for waste prevention and recycling (WPR) are used to calculate how much additional material is expected to be diverted from disposal given the same demographic and economic trends. This information is used to adjust the baseline forecast. Data on tons of materials recycled are provided by the curbside collection companies, division data from transfer facilities, and survey data collected annually by Ecology.

Since 2007 there has been a great deal of uncertainty and unpredictability in variables used in the division's forecasting model to predict the short-term (1- to 5-year) trends in solid waste generation. To respond to this uncertainty, the division has temporarily adjusted its approach to forecasting, using a more flexible system of ongoing monitoring while reviewing the model's assumptions.

This interim forecasting method involves:

- Monitoring solid waste tons delivered to division transfer facilities and the Cedar Hills landfill on a daily basis
- Regularly checking regional and state-wide economic forecasting activities (Dick Conway, King County economic forecast, Washington State Economic and Revenue Forecast Council)
- Monitoring state-wide tax revenue streams, particularly in the home improvement sector, furniture store sales, clothing sector, and other key markets
- Communicating regularly with other jurisdictions about the trends in their service areas

This information has been used to forecast short-term tonnage and subsequent revenues for use in critical budgeting, expenditure control, and management of capital projects over the 3- to 5-year period. The division will continue to use this interim forecasting method until the economy recovers from the recession and some degree of predictability returns. Once that occurs, the forecasting model will need to be adjusted and recalibrated to reflect any changes created by the multi-year recession and recovery periods. As of late 2010, economists are indicating that the recession is over, although economic recovery will take some time. In the solid waste industry, garbage tonnage has not returned to 2007 levels, but declines have begun to moderate. It may be 2012 to 2014 before sufficient economic recovery occurs to grasp the long-term effects of the recession. In the meantime, the division routinely updates its long-term, 20-year forecast for use in future planning.

Table 1 shows the tonnage forecast through 2030. Short-term forecasting methods are used through 2016 and revert to the traditional long-term forecasting method in 2017. The tonnage shown for 2010 is actual; although it was somewhat higher than forecast, it is too early to see this as a trend.

Table A-1. ***Tonnage forecast through 2030***

Year	Total System Tons	Yard Waste	Tons Disposed	Regional Direct	Special Waste	Basic Rate Tons
2010	835,948	5,016	830,932	5,664	2,462	822,806
2011	828,000	4,000	824,000	6,000	3,000	815,000
2012	831,000	5,000	826,000	6,000	3,000	817,000
2013	841,000	6,500	834,500	6,000	3,000	825,500
2014	846,000	7,000	839,000	6,000	3,000	830,000
2015	847,000	8,000	839,000	6,000	3,000	830,000
2016	864,000	8,500	855,500	6,000	3,000	846,500
2017	880,000	8,500	871,500	6,100	3,000	862,400
2018	895,000	8,500	886,500	6,200	3,000	877,300
2019	908,500	8,500	900,000	6,300	3,000	890,700
2020	922,000	8,500	913,500	6,400	3,500	903,600
2021	936,000	8,500	927,500	6,500	3,500	917,500
2022	950,000	8,500	941,500	6,500	3,500	931,500
2023	965,500	8,500	957,000	6,500	3,500	947,000
2024	980,000	8,500	971,500	6,500	3,500	961,500
2025	994,700	8,500	986,200	6,500	3,500	976,200
2026	1,009,600	8,500	1,001,100	6,500	3,500	991,100
2027	1,024,700	8,500	1,016,200	6,500	3,500	1,006,200
2028	1,040,000	8,500	1,031,500	6,500	3,500	1,021,500
2029	1,055,600	8,500	1,047,100	6,500	3,500	1,037,100
2030	1,071,500	8,500	1,063,000	7,000	3,500	1,052,500

APPENDIX B

Rate Model Through 2030

Solid Waste Division Financial Forecasting and Rate Model

Table B-1. Rate Model Through 2030	2010	2011e	2012	2013	2014	2015	2016
1999 Basic Fee plus inflation	*107.95*	*109.61*	*111.51*	*113.76*	*116.11*	*118.58*	*121.20*
Basic Fee	**95.00**	**95.00**	**108.00**	**115.00**	**115.00**	**115.00**	**123.00**
Total System Tons	835,948	828,000	831,000	841,000	846,000	847,000	864,000
Revenues							
Net Disposal Fees	80,034,514	78,508,560	89,038,160	95,948,758	97,428,530	97,514,090	106,299,931
Interest Earnings	219,243	125,653	120,534	143,030	202,944	318,196	410,814
Grants	465,986	301,000	250,000	250,000	275,000	275,000	281,078
Landfill Gas	31,559	884,000	1,370,000	1,370,000	1,398,359	1,428,144	1,459,706
Recycling	552,935	335,000	235,000	239,724	244,686	249,898	255,420
Other Revenue	831,251	187,148	192,762	198,545	204,502	210,637	216,956
Total Revenue	***82,135,487***	***80,341,361***	***91,206,457***	***98,150,057***	***99,754,020***	***99,995,965***	***108,923,905***
Operating Expenditures							
Debt service	5,871,848	4,579,622	5,076,500	7,211,700	8,168,500	9,446,500	21,307,225
Rent - Cedar Hills	8,358,372	8,609,117	8,867,391	9,133,412	3,356,901	*See note below*	
Landfill Reserve Fund	4,029,909	4,884,000	6,824,214	6,894,439	7,070,943	7,214,427	7,506,855
CERP Fund	3,240,034	3,100,000	4,300,000	4,300,000	4,300,000	4,300,000	4,300,000
Construction Fund	2,000,000	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Emergency Fund (NEW)			100,000	102,010	104,122	106,339	108,689
Overhead	3,517,161	3,432,464	3,492,189	3,562,382	3,636,123	3,713,573	3,795,643
SWD Administration	4,118,038	4,402,808	4,479,417	4,569,453	4,664,041	4,763,385	4,868,656
Legal	297,637	357,402	363,621	370,930	378,608	386,672	395,218
Planning & Communications	1,383,231	1,624,799	1,653,071	1,686,297	1,721,204	1,757,865	1,796,714
Finance & IT	4,501,237	5,725,743	5,825,371	5,942,461	6,065,470	6,194,664	6,331,566
Recycling & Environmental Services	4,418,618	4,148,959	4,221,151	4,305,996	4,395,130	4,488,746	4,587,948
Grants to Cities	1,042,694	1,165,523	1,185,803	1,209,638	1,234,677	1,260,976	1,288,843
Competitive Grants (NEW)			500,000	510,050	520,608	531,697	543,447
Variable Operating Costs							
(a) Disposal	2,843,969	2,919,678	2,926,765	2,985,592	3,047,394	3,112,304	3,181,086
(b) Transfer & Transport	11,606,052	11,689,533	11,596,092	11,829,174	12,074,038	12,331,215	12,603,735
Fixed Operating Costs							
(a) Disposal	11,153,317	11,599,450	11,801,479	12,038,688	12,287,889	12,549,621	12,826,968
(b) Transfer & Transport	15,800,004	16,432,004	16,718,203	17,054,239	17,407,261	17,778,036	18,170,931
B & O Tax	1,405,758	1,444,628	1,513,649	1,615,523	1,640,270	1,641,384	1,790,053
plus prior year carryover		1,893,818					
3% under expenditure		(1,949,245)					
Total SWD Costs	***85,587,879***	***87,060,303***	***93,444,914***	***97,321,984***	***94,073,178***	***93,577,404***	***107,403,576***
Ending Fund Balance	15,987,621	9,268,680	7,031,026	7,863,540	13,553,488	19,985,926	21,506,254
Target Fund Balance (45-day reserve)	6,512,973	6,683,597	6,914,600	7,307,729	7,559,939	7,858,967	9,489,145
Amount of Above Target	9,474,648	2,585,083	116,426	555,811	5,993,549	12,126,959	12,017,109

Note: Current rent schedule ends in 2014; a new appraisal will be done and rent reassessed.

Table B-1. Rate Model Through 2030	2017	2018	2019	2020	2021	2022	2023
1999 Basic Fee plus inflation	*124.08*	*126.99*	*129.91*	*132.90*	*135.96*	*139.09*	*142.28*
Basic Fee	**123.00**	**123.00**	**132.00**	**132.00**	**132.00**	**133.00**	**133.00**
Total System Tons	880,000	895,000	908,500	922,000	936,000	950,000	965,500
Revenues							
Net Disposal Fees	108,269,553	110,116,206	119,878,391	121,687,107	123,536,856	126,329,637	128,394,451
Interest Earnings	399,390	307,815	236,219	231,062	231,662	237,281	249,297
Grants	287,739	294,501	301,274	308,204	,292	322,544	329,963
Landfill Gas	1,494,301	1,529,417	1,564,594	1,600,579	1,637,393	1,675,053	1,713,579
Recycling	261,474	267,618	273,774	280,070	286,512	293,102	299,843
Other Revenue	223,464	230,168	237,073	244,186	251,511	259,057	266,828
Total Revenue	***110,935,921***	***112,745,726***	***122,491,325***	***124,351,208***	***126,259,226***	***129,116,672***	***131,253,960***
Operating Expenditures							
Debt service	25,510,626	29,986,481	31,651,159	31,651,409	31,651,409	31,650,909	31,649,659
Rent - Cedar Hills							
Landfill Reserve Fund	8,044,699	8,356,742	8,658,738	8,962,203	9,275,799	9,594,715	9,934,523
CERP Fund	4,300,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Construction Fund	2,000,000	2,000,000	2,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Emergency Fund (NEW)	111,265	113,880	116,499	119,179	121,920	84,700	66,777
Overhead	3,885,599	3,976,911	4,068,380	4,161,953	4,257,677	4,355,604	4,455,783
SWD Administration	4,984,043	5,101,168	5,218,495	5,338,520	5,461,306	5,586,916	5,715,415
Legal	404,584	414,092	423,616	433,359	443,327	453,523	463,954
Planning & Communications	1,839,296	1,882,520	1,925,818	1,970,111	2,015,424	2,061,779	2,109,200
Finance & IT	6,481,625	6,633,943	6,786,523	6,942,613	7,102,294	7,265,646	7,432,756
Recycling & Environmental Services	4,696,682	4,807,054	4,917,616	5,030,722	5,146,428	5,264,796	5,385,886
Grants to Cities	1,319,389	1,350,395	1,381,454	1,413,227	1,445,731	1,478,983	1,513,000
Competitive Grants (NEW)	556,327	569,401	582,497	595,895	609,600	623,621	637,964
Variable Operating Costs							
(a) Disposal	3,256,477	3,333,005	3,409,664	3,488,086	3,568,312	3,650,383	3,734,342
(b) Transfer & Transport	12,902,443	13,205,650	13,509,380	13,820,096	14,137,958	14,463,131	14,795,783
Fixed Operating Costs							
(a) Disposal	13,130,967	13,439,545	13,748,654	14,064,873	14,388,365	14,719,298	15,057,842
(b) Transfer & Transport	18,601,582	19,038,719	19,476,609	19,924,571	20,382,836	20,851,642	21,331,229
B & O Tax	1,822,806	1,853,468	2,018,711	2,048,722	2,079,396	2,126,077	2,160,321
Total SWD Costs	***113,610,086***	***119,320,546***	***123,147,696***	***124,215,730***	***126,334,145***	***128,474,256***	***130,682,729***
Ending Fund Balance	18,832,089	12,257,269	11,600,899	11,736,377	11,661,458	12,303,875	12,875,106
Target Fund Balance (45-day reserve)	10,176,340	10,900,028	11,272,603	11,440,907	11,613,050	11,789,090	11,969,086
Amount of Above Target	8,655,749	1,357,241	328,296	295,470	48,408	514,785	906,020

Table B-1.

Rate Model Through 2030	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
1999 Basic Fee plus inflation	*145.56*	*148.90*	*152.33*	*155.83*	*159.42*	*163.08*	*166.84*
Basic Fee	**133.00**	**133.00**	**160.50**	**160.50**	**160.50**	**133.00**	**133.00**
Total System Tons	980,000	994,700	1,009,600	1,024,700	1,040,000	1,055,600	1,071,500
Revenues							
Net Disposal Fees	130,326,298	132,284,778	161,800,142	164,227,141	166,686,274	140,398,341	142,509,094
Interest Earnings	257,979	261,178	255,999	234,155	221,599	218,149	185,854
Grants	337,552	345,315	353,258	361,383	369,694	378,197	386,896
Landfill Gas	1,752,991	1,793,310	1,834,556	1,876,751	1,919,916	1,964,074	2,009,248
Recycling	306,740	313,795	321,012	328,395	335,948	343,675	351,580
Other Revenue	274,833	283,078	291,570	300,318	309,327	318,607	328,165
Total Revenue	***133,256,392***	***135,281,455***	***164,856,538***	***167,328,142***	***169,842,759***	***143,621,044***	***145,770,837***
Operating Expenditures							
Debt service	31,652,409	31,648,659	31,653,409	31,650,909	28,401,159	*Note: Assumes all bonds paid by 2028*	
Rent - Cedar Hills							
Landfill Reserve Fund	10,269,651	10,612,442	*Note: Assumes Cedar Hills stops accepting waste at end of 2025*				
CERP Fund	3,500,000	3,500,000	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000
Construction Fund	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Emergency Fund (NEW)	68,313	69,884	71,492	73,136	74,818	76,539	78,299
Overhead	4,558,266	4,663,106	4,770,357	4,880,076	4,992,317	5,107,141	5,224,605
SWD Administration	5,846,870	5,981,348	6,118,919	6,259,654	6,403,626	6,550,909	6,701,580
Legal	474,625	485,541	496,709	508,133	519,820	531,776	544,007
Planning & Communications	2,157,711	2,207,339	2,258,107	2,310,044	2,363,175	2,417,528	2,473,131
Finance & IT	7,603,710	7,778,595	7,957,503	8,140,525	8,327,757	8,519,296	8,715,239
Recycling & Environmental Services	5,509,762	5,636,486	5,766,125	5,898,746	6,034,417	6,173,209	6,315,193
Grants to Cities	1,547,799	1,583,398	1,619,816	1,657,072	1,695,185	1,734,174	1,774,060
Competitive Grants (NEW)	652,637	667,648	683,004	698,713	714,783	731,223	748,042
Future Disposal Costs (after Cedar Hills closes)			58,798,599	60,783,820	62,834,377	64,958,430	67,158,333
Variable Operating Costs							
(a) Disposal	3,820,232	3,908,097					
(b) Transfer & Transport	15,136,086	15,484,216	15,840,353	16,204,682	16,577,389	16,958,669	17,348,719
Fixed Operating Costs							
(a) Disposal	15,404,172	15,758,468					
(b) Transfer & Transport	21,821,848	22,323,750	22,837,197	23,362,452	23,899,788	24,449,484	25,011,822
B & O Tax	2,192,300	2,224,700	2,725,533	2,765,828	2,806,634	2,358,699	2,393,500
Total SWD Costs	***132,950,720***	***135,263,987***	***165,397,122***	***168,993,789***	***169,445,246***	***144,367,077***	***148,286,530***
Ending Fund Balance	13,180,778	13,198,246	12,657,661	10,992,014	11,389,527	10,643,494	8,127,802
Target Fund Balance (45-day reserve)	12,153,726	12,341,792	10,520,143	10,670,790	10,419,004	7,026,842	7,188,460
Amount of Above Target	1,027,052	856,453	2,137,518	321,224	970,524	3,616,652	939,342

APPENDIX C

Construction Fund

CAPITAL IMPROVEMENT PROGRAM

Summary

The Capital Improvement Program (CIP) funded under this rate study implements the transfer system renovation plan as set forth in the collaboratively developed 2006 *Solid Waste Transfer and Waste Management Plan* (Transfer Plan) and approved by the King County Council in 2007.

Background

The transfer network has served the region well for nearly five decades; however, all of the urban transfer stations are now outdated and over capacity, with the exception of the newly constructed Shoreline Recycling and Transfer Station. Along with the growth in population, since the late 1980s there has been an emphasis on recycling to reduce wastes. While recycling containers have been placed at transfer stations, wherever space allows, space constraints limit the number of containers and the range of materials that each site can accommodate. These space constraints prohibit the addition of recycling opportunities for materials that are commonly disposed at the stations, including yard waste, clean wood, and scrap metal. Changes in the industry have also created operational constraints. For example, commercial collection trucks are larger than in the past, making it more difficult to unload the vehicles safely and efficiently. Given these and other factors, in 2004 the division and its advisory committees – the Solid Waste Advisory Committee (SWAC) and the Metropolitan Solid Waste Management Advisory Committee (MSWMAC) – embarked on a comprehensive analysis of the urban transfer system to determine how best to update the system to meet current needs.

Five of the urban transfer stations, with the exception of the newly constructed Shoreline station, were evaluated using 17 criteria. In general, the criteria focused on the level of service to users, the capacity of stations to handle garbage and recyclables both now and in the future, structural integrity, and the effects of facilities on surrounding communities. Once the criteria were applied to each urban station, the results were used to evaluate its condition to determine whether the station should be reconstructed in its current location, whether it should be closed and a new station built in a different location, or whether it should be closed without being replaced.

The advisory committees worked closely with the division to develop and apply the 17 criteria, evaluate options, and formulate recommendations for upgrading the transfer system. The work of the division and the committees culminated in the Transfer Plan, which was approved by the King County Council in December 2007.

As outlined in the Transfer Plan, the Bow Lake and Factoria stations will both be deconstructed, and new recycling and transfer stations will be built on the existing sites and adjacent properties. Both the Houghton and Algona stations will be closed and replaced with newly sited recycling and transfer stations in the Northeast and South County areas respectively. The Renton station was approved for closure.

The activities approved by the County Council in the Transfer Plan include the following:

Bow Lake – deconstruct the existing transfer station and construct a new recycling and transfer station on the existing site and adjacent property purchased from the Washington State Department of Transportation

Factoria – deconstruct the existing transfer station and construct a new recycling and transfer station on the existing site and adjacent properties to the northwest of the site, which the division purchased in 2007

Algona – close the station and replace it with a new recycling and transfer station in the South County area

Houghton – close the station and replace it with a new recycling and transfer station in the Northeast Lake Washington area

Renton – close the station and do not replace it

Figure C-1. ***Capital Improvement Program – Transfer Plan implementation schedule***

	2011	2012	2013	2014	2015	2016	2017	2018
Bow Lake	Construction		Open					
Factoria	Design and Permit			Construction		Open		
Northeast	Site New Facility			Design and Permit			Construction	Open
South County	Site New Facility			Design and Permit			Construction	Open
Houghton								Close
Algona								Close
Renton								Close*

** Decision to close Renton subject to evaluation after siting of the new South County transfer station.*

Table C-1. ***Capital Improvement Program – Revenues, expenditures, and fund balances***

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Estimated interest earnings rate	0.01	0.015	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Estimated inflation	0.0221	0.0237	0.0235	0.0230	0.0230	0.0230	0.0230	0.0230	0.0230
Beginning fund balance	5,343,146	7,317,127	1,009,633	1,116,631	884,589	1,199,104	477,714	885,946	1,283,299
Revenues									
Transfer from operating fund	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Interest earned	169,981	151,006	422,998	200,208	99,413	81,558	229,650	237,663	108,656
Borrowing	40,000,000	18,000,000	74,000,000	32,000,000	13,000,000		39,000,000	39,000,000	13,500,000
Other revenue *(1)*						10,000,000			
Total	*41,169,981*	*20,151,006*	*76,422,998*	*34,200,208*	*15,099,413*	*12,081,558*	*41,229,650*	*41,237,663*	*15,608,656*
Expenditures									
Bow Lake	23,537,000	19,482,000	13,566,000	2,665,000					
Factoria	2,500,000	4,000,000	28,000,000	27,000,000	4,000,000				
Northeast County	500,000	1,200,000	23,000,000	2,000,000	5,000,000	7,000,000	20,000,000	20,000,000	7,300,000
South County	500,000	1,200,000	11,000,000	2,000,000	5,000,000	5,000,000	20,000,000	20,000,000	7,300,000
Other projects	2,159,000	576,500	750,000	767,250	784,897	802,949	821,417	840,310	859,637
Other expenditures *(2)*	10,000,000								
Total	*39,196,000*	*26,458,500*	*76,316,000*	*34,432,250*	*14,784,897*	*12,802,949*	*40,821,417*	*40,840,310*	*15,459,637*
Ending fund balance	**7,317,127**	**1,009,633**	**1,116,631**	**884,589**	**1,199,104**	**477,714**	**885,946**	**1,283,299**	**1,432,318**

(1) Sale of Factoria property in 2016

(2) Repay 2010 internal borrowing

APPENDIX D

Capital Equipment Recovery Program

THE CAPITAL EQUIPMENT RECOVERY PROGRAM

The Solid Waste Division's Capital Equipment Recovery Program (CERP) involves both a model and a fund. The CERP Model applies life-cycle costing considerations to SWD capital equipment and is a tool used in determining the timing of asset replacements. The CERP Fund was codified in 1981 (KCC 4.08.280) to ensure the timely and economical replacement of equipment. The fund serves three main purposes: 1) accumulate the financial resources for the replacement of the SWD's rolling stock and stationary compactors on a timely and cost effective basis; 2) stabilize the monetary effects of equipment purchases on the operating fund; and 3) provide stability in the operating budget against the effects of dramatic tonnage decreases.

CERP INVENTORY

By code, the CERP Fund explicitly includes SWD's "rolling stock and stationary compactors." However, since establishment of the CERP Fund, business practice and equipment technology have advanced and SWD's capital equipment now includes significant fixed assets that are not "rolling stock" or "stationary compactors", but have direct operational use, such as the power units for the landfill tippers. In keeping with the intent of the CERP Fund, these major assets are included in the CERP Model.

CERP FUND

The initial purchase of equipment is from SWD's operating fund. After initial acquisition, an annual contribution is made to the CERP Fund for the eventual replacement of CERP Inventory. Also, a 1993 ordinance authorized payment from the CERP Fund for major equipment overhauls in lieu of replacement. All auction, salvage, and buyback income from disposal of SWD equipment is treated as CERP Fund revenue.

CERP Fund Contributions

For each CERP Inventory asset, an annual payment to the CERP Fund is calculated based on assumptions about the asset's life and net future replacement cost (total estimated replacement cost minus estimated salvage/trade-in/buyback income). These annual payments ensure that adequate funds are available to purchase the replacement for that piece of equipment in the scheduled year.

Historical Funding Policies

Prior to 1995, the CERP funding policy was "100 percent" funding, meaning that cash in the fund was 50 percent of replacement cost with the other 50 percent attributed to salvage value of the existing assets. Through 1996, the policy was 40 percent of replacement cost. As of 1997, SWD adopted a minimum funding policy which stated, "Beginning fund balance for any given year is equal to or greater than equipment purchases projected for the same given year." Under this policy, a minimum funding percentage was not used to determine the fund balance. The transfer required from the operating fund to the CERP Fund was reduced substantially with this

change in policy to minimum funding from the 40 percent funding policy. As of 2009, the CERP Fund balance was approximately 18 percent of the net replacement cost of currently held CERP Inventory.

Current Funding Policy

Beginning in 2010, contributions to the Fund are based on a six-year average of the estimated replacement value of equipment due to be replaced within that time frame. The estimated replacement value is adjusted for capitalized repairs and factors for inflation and salvage value. Optimally, fund balance is maintained between 15 percent and 20 percent of total CERP Inventory replacement value.

Budgeting

Budget planning for equipment purchases, rebuilds, and replacements occurs early each year. This may include a revisit of the equipment purchase plans for the current year's Adopted Budget, but is primarily focused on plans for the following year's Budget Request. However, purchase of some items, may require a greater lead time – as much as two years – so budget planning looks beyond the next year for such assets.

The initial purchase of a new asset (expansion of fleet or new type that is not replacing an outgoing asset) is purchased from operating funds and not the CERP Fund. Other than the cost of repairs included in the rebuild program, all equipment repair costs are paid from the Operating Fund.

CERP MODEL

The CERP Model accomplishes the life-cycle costing for CERP Inventory. Components of the life-cycling costing for equipment are age, usage (meters), maintenance (costs), and condition.

Model Function and Overview

The life-cycle costing model currently in place is a function of the CCG Faster Fleet Management application. Information regarding the purchase, life, replacement, and disposal of equipment is stored in the CCG Faster application database. The CCG Faster application automatically calculates equipment replacement dates and costs based on age, usage, and maintenance dollar spent. An inflation factor is included in the cost calculation. The estimated replacement date calculation is driven by a 15-point rating method—CCG Faster assigns point values to the age of the equipment, maintenance dollars spent, and miles/hours meter reading. A higher total point value, up to 15, accelerates the equipment's Adjusted Replacement Date. Because some assets, such as stationary compactors, lack an appropriate meter, custom reports include a calculation for purposes of generating an adjusted replacement date, monthly contribution, and remaining balance for these assets.

Asset Life Expectancies

An asset's life expectancy is based on the Original Equipment Manufacturer (OEM) suggested life which is adjusted for SWD working conditions and SWD historical average use by type of asset. For example, a long-haul tractor's life per OEM is one-million miles for normal usage. However, SWD's usage of this type of vehicle is short-haul with heavy, urban traffic plus regular off-road driving on the landfill. Therefore, SWD expected life, based on actual average usage, is about 400,000 miles. At an average of 40,000 miles per year, this is about 10 years.

Some assets may be rebuilt, which will extend their life beyond the OEM suggested life. For example, the original life expectation for a bulldozer is 10,000 hours or 60 months; the expected life extension for a power train overhaul is 10,000 hours or an additional 60 months. Other assets expected to have an extended life as a result of rebuild work are excavators, refuse trailers, pre-load compactors, and hydraulic power units (for tippers). Second rebuilds have not proven cost-effective for extending useful life.

15-Point Replacement Rating Method

CCG Faster calculates equipment replacement two ways. First, is a targeted replacement date based on system entries for the original date in service and a life expectancy in months. Second, that original date is adjusted via a 15-point rating method in which CCG Faster calculates point values for equipment age, maintenance expense, and the mile/hour meter reading. This total can be tempered with manual entry of a subjective Condition Factor. The higher the combined total of these four factors, the sooner the Adjusted Replacement Date will be for that equipment.

Age Points are calculated based on an asset's actual age-to-date compared to an estimated or expected life for that asset – the maximum age points are 5. Meter Points are calculated based on an asset's actual hour or mile meter reading compared to an estimated or expected life meter for that asset – the maximum meter points are 5. Maintenance Points are calculated based on an asset's actual repairs but excluding repair types coded as Accident, Warranty, and Capital Repairs – the maximum maintenance points are 10.

The Condition Factor is a subjective value entered manually for each asset. These points serve to accelerate or decelerate CCG Faster's calculation of the asset replacement date. If an asset is in good condition, the adjusted replacement date can be extended by deducting up to 2 points from the total point score while if an asset is in poor condition its replacement date can be accelerated by adding up to 2 points to the total point score.

Adjusted Replacement Date

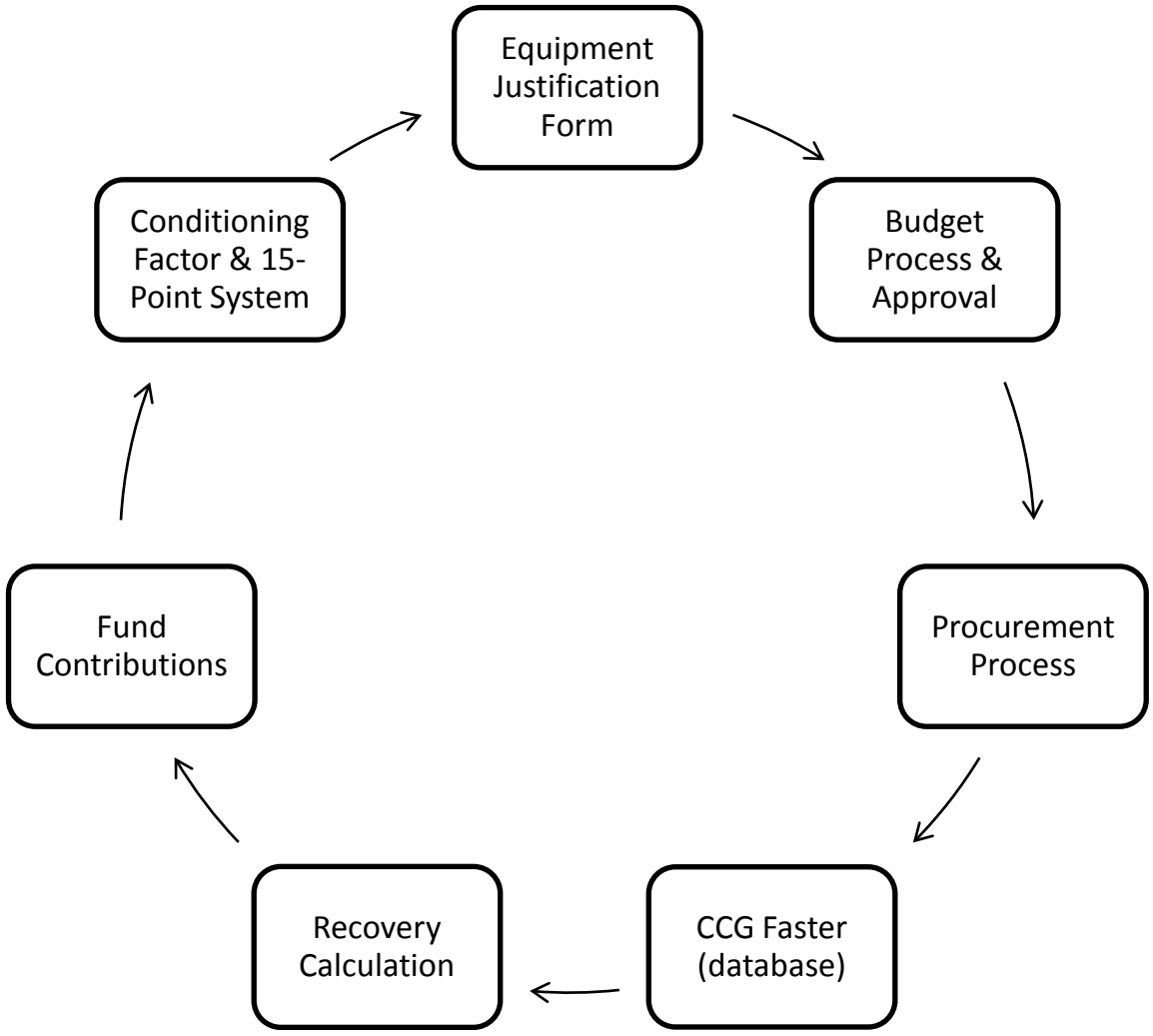
The formula CCG Faster uses for calculating an asset's Adjusted Replacement Date based on the 15-point rating method involves the percentage of remaining points multiplied by the asset's Life Expectancy in Months. The formula is: ((Maximum Possible Points minus Total Points) divided by Maximum Possible Points) times Life Expectancy in Months). This yields the asset's Remaining Life in Months which when added to the current date equals that asset's Adjusted

Replacement Date. An example of the calculation for an asset with a Life Expectancy in Months of 120 and Total Points of 12.4 is as follows: ((15.0 – 12.4) / 15.0) * 120 = 20.7 months of remaining life. The months of remaining life is added to the current date to determine the asset's Adjusted Replacement Date.

CERP Process

Processes, procedures, and definitions are documented in the division's CERP Manual. The figure below summarizes the process for inventory purchase and replacement.

Figure D-1. ***Process Flow – CERP Inventory Purchase and Replacement***



Appendix D: Capital Equipment Recovery Program

Equipment Class	Life Expectancy in Months	Inventory Count 1/1/2011	Units due to be Replaced	2011 Replacement Cost	2012 Replacement Cost	2013 Replacement Cost	2014 Replacement Cost	2015 Replacement Cost	2016 Replacement Cost	2017 Replacement Cost
BACKHOE	240	5	3			90,708				263,312
BAILER, CARDBOARD	200	2								
COMPACTOR, LANDFILL	60	3	3	1,000,000		1,000,000			2,000,000	
COMPACTOR, PRELOAD	240	3								
COMPACTOR, STATIONARY	120	11								
CRANE, HYDRAULIC MATERIAL HANDLIN(	240	1	1					153,442		
DOZER, TRACK (1)	60	9	9	720,000	360,000		3,077,747	3,779,305		
EXCAVATOR	120	2	1				750,813			
FORKLIFT	240	1								
GRADER, ROAD, WHEELS	240	1	1			357,096				
HYDRAULIC POWER UNIT	120	3								
LOADER, FRONT END	120	4	1							366,338
PICKUP / TRUCK	120	35	30	60,000	375,868	107,277	159,556	227,476	138,501	62,041
ROLLER, VIBRATORY	243	1								
SCRAPER (WHEELS)	120	4	4			874,497	882,037	886,213	868,451	
SCREENPLANT	180	1								
SEDAN, HYBRID GAS/ELECTRIC	120	8	8				91,866	89,548	65,720	
SERVICE TRUCK WITH CRANE	120	1	1		36,497					
SLOPE MOWER	150	2	1		124,293					
SUV	120	10	6			104,881	108,643			
SWEEPER	36	2	1		78,866					
TARPING MACHINE, LANDFILL AUTOMATI	120	1	1				98,657			
TRAILER, BELLY DUMP 3-AXLE	200	4	4			229,286				
TRAILER, DUMP	120	2								
TRAILER, EQUIP, HYDR. TAIL, 2-AXLE	150	1								
TRAILER, LO-BOY	300	1	1				69,194			
TRAILER, REFUSE, COMPACTOR	108	16	3					109,286	113,368	119,014
TRAILER, REFUSE, TOP LOAD (2)	144	134	70	960,000				640,000		640,000
TRAILER, TANK	360	5								
TRUCK, CLASS 8, FUEL TANKER	240	2	1		202,173					
TRUCK, CLASS 8, LONG HAUL	120	55	33		157,445	1,046,937	1,275,660	682,747	525,607	1,836,686
TRUCK, CLASS 8, LUBE	240	1								
TRUCK, CLASS 8, ROAD MAINTENANCE	120	1								
TRUCK, CLASS 8, STEAM CLEANER	120	1	1		65,885					
TRUCK, CLASS 8, WATER	240	1	1		207,903					
TRUCK, LUBE	240	2	2		144,166					
TRUCK, SCALE	240	1						74,214		
VACTOR	120	1								
VAN	240	6	4			86,325	30,183			
YARD GOAT	150	21	14	452,000	689,985	119,371	122,628	127,406	123,744	
Projected Replacement Cost by Year				3,192,000	2,443,081	4,016,378	6,666,984	6,769,637	3,835,391	3,287,391
Projected Repair Expenditures by Year				830,000	830,000	830,000	830,000	830,000	830,000	830,000
Total Projected Expenditures				4,022,000	3,273,081	4,846,378	7,496,984	7,599,637	4,665,391	4,117,391

Computation of Per Year CERP Fund Contribution to Achieve Target 2017 Fund Balance:		
Estimated Beginning Fund Balance 2012	11,886,000	
Target Fund Balance 2017 (3)	7,425,000	
Projected Revenue 2011-2017	1,605,000	
Projected Expenditure 2011-2017	31,998,862	
Per Year Contribution to Achieve 2017 Target Fund Balance	4,322,144	Rounded to $4,300,000

(1) Three D7 dozers will be replaced with Loaders at new Bow Lake station.

(2) Replaced with combination container/chassis units as stations are rebuilt with preload-compactors.

(3) 15% CERP Inventory Replacement Value

APPENDIX E

Landfill Reserve Fund

E-1. Average per ton contribution by account – 2012

E-2. Cedar Hills new area development

E-3. Cedar Hills facility improvements

E-4. Cedar Hills closure

E-5. Cedar Hills post closure maintenance

E-6. Landfill Reserve Fund Project Cost Estimates

Table E-1. ***Average per ton contribution by account - 2012***

New area development	$ 3.63
Facility improvements	$ 0.74
Closure	$ 3.89
Post-closure maintenance	$ -
	$ 8.26

Table E-2. ***Cedar Hills new area development***

Per ton contribution 2012 $3.631

Year	Transfer	Interest earnings (3% real)	Expenditures	Year-end Balance
2010	1,213,586	(137,615)	1,827,700	(11,019,787)
2011	1,845,760	(302,907)	0	(9,476,935)
2012	2,998,961	(239,841)	34,500	(6,752,315)
2013	3,029,822	(160,624)	233,447	(4,116,563)
2014	3,046,160	(123,333)	3,035,261	(4,228,997)
2015	3,046,160	(267,459)	12,418,770	(13,869,066)
2016	3,106,067	(528,483)	10,600,154	(21,891,637)
2017	3,164,158	(679,271)	4,665,613	(24,072,364)
2018	3,218,619	(674,323)	28,750	(21,556,818)
2019	3,267,633	(597,690)	0	(18,886,875)
2020	3,316,648	(516,857)	0	(16,087,083)
2021	3,367,478	(432,100)	0	(13,151,706)
2022	3,418,307	(343,277)	0	(10,076,676)
2023	3,474,583	(250,182)	0	(6,852,274)
2024	3,527,228	(153,410)	50,000	(3,528,455)
2025	3,580,600	(52,145)	0	(0)

Table E-3. ***Cedar Hills facility improvements***

Per ton contribution 2012 $0.744

Year	Transfer	Interest earnings (3% real)	Expenditures	Year-end Balance
2010	224,345	(9,465)	201,785	(757,944)
2011	683,920	(47,092)	2,007,500	(2,428,616)
2012	639,177	(83,506)	1,349,000	(3,221,945)
2013	645,754	(123,355)	2,225,500	(5,125,045)
2014	649,237	(154,709)	913,050	(5,343,567)
2015	649,237	(153,868)	220,000	(5,068,198)
2016	662,005	(143,616)	100,000	(4,649,810)
2017	674,386	(130,879)	100,000	(4,206,302)
2018	685,993	(117,399)	100,000	(3,737,708)
2019	696,440	(103,185)	100,000	(3,244,453)
2020	706,886	(88,230)	100,000	(2,725,797)
2021	717,720	(72,508)	100,000	(2,180,585)
2022	728,553	(55,989)	100,000	(1,608,021)
2023	740,548	(38,632)	100,000	(1,006,106)
2024	751,768	(20,407)	100,000	(374,744)
2025	763,143	(1,295)	100,000	287,104
2026	0	7,113	100,000	194,217
2027	0	4,327	100,000	98,544
2028	0	1,456	100,000	(0)

Table E-4. ***Cedar Hills closure***

Per ton contribution 2012 $3.887

Year	Transfer	Interest earnings (3% real)	Expenditures	Year-end Balance
2010	2,592,436	146,490	1,831,806	11,730,492
2011	2,348,400	309,381	5,483,953	9,204,321
2012	3,186,076	309,983	929,174	11,771,206
2013	3,218,863	362,457	2,597,487	12,755,038
2014	3,236,220	392,162	2,602,194	13,781,226
2015	3,236,220	418,495	2,899,025	14,536,916
2016	3,299,864	449,099	2,433,767	15,852,112
2017	3,361,580	521,487	300,000	19,435,179
2018	3,419,439	566,922	4,495,000	18,926,540
2019	3,471,511	603,361	1,100,544	21,900,868
2020	3,523,584	638,308	4,771,433	21,291,327
2021	3,577,585	620,832	4,771,433	20,718,312
2022	3,631,587	604,452	4,771,433	20,182,917
2023	3,691,374	592,602	4,550,398	19,916,496
2024	3,747,304	475,169	11,902,384	12,236,584
2025	3,804,005	286,446	9,180,750	7,146,285
2026	0	76,677	9,180,750	(1,957,787)
2027	0	(214,405)	10,378,112	(12,550,305)
2028	20,055,886	(185,472)	7,320,109	0

Table E-5. ***Cedar Hills post closure maintenance***

Per ton contribution 2012 $0.000

Year	Transfer	Interest earnings (3% real)	Set Aside	Year-end Balance
2010	0	412,011	0	32,992,646
2011	0	989,779	0	33,982,425
2012	0	1,019,473	0	35,001,898
2013	0	1,050,057	0	36,051,955
2014	0	1,081,559	0	37,133,513
2015	0	1,114,005	0	38,247,519
2016	0	1,147,426	0	39,394,944
2017	0	1,181,848	0	40,576,793
2018	0	1,217,304	0	41,794,097
2019	0	1,253,823	0	43,047,919
2020	0	1,291,438	0	44,339,357
2021	0	1,330,181	0	45,669,538
2022	0	1,370,086	0	47,039,624
2023	0	1,411,189	0	48,450,813
2024	0	1,453,524	0	49,904,337
2025	0	1,497,130	0	51,401,467
2026	0	1,542,044	0	52,943,511
2027	0	1,588,305	0	54,531,816
2028	0	1,102,281	35,578,212	20,055,886

Assuming future interest earnings, this account is fully funded and no longer requires contributions.

Funds remaining when transfer to post-closure maintenance fund occurs will be added to the closure account – see Table C-4.

Table E-6. ***Landfill Reserve Fund Project Cost Estimates***

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Cedar Hills Landfill New Area Development																			
Landfill Gas-to-Energy Support	231,165																		
Surface Water Management System Modifications	2,412																		
Area 6 Development	7,963																		
Area 7 Development	1,586,160																		
Area 8 Development			34,500	233,447	3,035,261	12,418,770	10,600,154	4,665,613	28,750										
Area 5,6,7,8 Top Lift Development															50,000				
Total New Area Development Projects	***1,827,700***		***34,500***	***233,447***	***3,035,261***	***12,418,770***	***10,600,154***	***4,665,613***	***28,750***						***50,000***				
Cedar Hills Facility Improvement																			
Replace Pump Station 4	455																		
Master Electrical			500,000	800,000	200,000														
Lechate Forcemain	52,591	900,000																	
Groundwater Monitoring Wells & Hydrogeologic Report		100,000																	
Equipment Platform		275,000	200,000	650,000	300,000														
Site Development Plan	142,131	100,000																	
Environmental Control System Improvements		632,500	649,000	775,500	413,050	220,000													
General Facility Improvements	6,609						100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Total Facility Improvement Projects	***201,785***	***2,007,500***	***1,349,000***	***2,225,500***	***913,050***	***220,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***	***100,000***
Cedar Hills Landfill Closure																			
Leachate & Landfill Gas Management System Evaluation	490,661	300,000																	
Groundwater Monitoring Wells	219,365																		
Area 5 Closure	269																		
Area 6 Closure	1,121,511	5,115,000	500,000																
Area 7 Closure		68,953	429,174	2,597,487	2,602,194	2,899,025	2,433,767	300,000	4,495,000	408,688									
Area 8 Closure										691,856	4,771,433	4,771,433	4,771,433	4,550,398	2,750,384	28,750	28,750	1,226,112	7,320,109
Area 5,6,7,8 Top Lift Closure															9,152,000	9,152,000	9,152,000	9,152,000	
Total Landfill Closure Projects	***1,831,806***	***5,483,953***	***929,174***	***2,597,487***	***2,602,194***	***2,899,025***	***2,433,767***	***300,000***	***4,495,000***	***1,100,544***	***4,771,433***	***4,771,433***	***4,771,433***	***4,550,398***	***11,902,384***	***9,180,750***	***9,180,750***	***10,378,112***	***7,320,109***

This material will be provided in alternate formats upon request by contacting:

King County Solid Waste Division

206-296-4466

1-800-325-6165, ext. 6-4466

TTY Relay: 711

www.kingcounty.gov/solidwaste

King County

Department of Natural Resources and Parks

Solid Waste Division

Printed on recycled paper

[Blank Page]

March 30, 2011

The Honorable Larry Gossett
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember Gossett:

With this letter, I am transmitting an ordinance to adjust the Solid Waste Division's disposal fees for 2012. This rate proposal was prepared in response to King County Ordinance 16984 Section 101, Solid Waste, P2. The proviso requires transmittal by March 30 of a proposal for a solid waste rate adjustment that provides resources for essential capital improvements to the transfer system that have been undertaken consistent with the solid waste management and transfer system plan. The rate proposal I am transmitting with this letter meets that and other requirements of the proviso.

Under this proposal, the Basic Fee for disposal of municipal solid waste would increase from $95 to $108.00 per ton, effective January 1, 2012. The impact of the proposed increase on the average residential customer with one-can collection service would be about $0.76 per month. A comparison to the fees charged by other jurisdictions shows that King County's fee would remain among the lowest in the region.

The current rate of $95 per ton was intended for the three-year period of 2008, 2009, and 2010; however, operational efficiencies allowed the Division to defer an increase for an additional year.

Since the economic downturn in 2007, the solid waste system has experienced an approximate 18 percent decline in tonnage received and an associated decline in revenue. In response, the

Division has implemented numerous efficiencies and budget controls, including adjusting operating hours and reducing staffing. The Division implemented significant cost reductions and efficiencies to enable it to defer a rate increase. Reductions from appropriation from 2008-2011 totaled $42 million. Measures include the following:

- Implement landfill best practices by changing trailer unload practice. This changed practice has reduced trailer maintenance and tire replacement and has reduced material use in operation of the landfill.
- Transfer station hours were adjusted to more closely match customer demand, reducing labor costs.
- Recycling programs were evaluated and those which duplicated private initiatives or had achieved their goals, such as Northwest Yard Days, were eliminated.

The Division's objective is to keep fees as low as reasonable, while covering the costs of effectively managing the system and providing service to the residents and businesses of King County. This rate proposal supports the County's strategic plan goals of Environmental Sustainability, Economic Growth and Built Environment, Service Excellence, and Financial Stewardship.

I am taking the unusual step of transmitting a one-year rate to allow time for the cities and the County to work in partnership on long-term agreements that will keep fee increases to a minimum while allowing for essential improvements to the solid waste transfer system. Cities and the County are working collaboratively on potential changes to the ILAs, including a possible extension of existing ILAs or new ILAs with longer terms. Longer-term ILAs would provide on-going revenue to back longer-term bonds, which would have less impact on rates in future years. We expect to conclude discussions later this year, in time to incorporate any changes to ILAs that would affect the rate into a multi-year rate study to be transmitted to the County Council next year.

Both of the Division's advisory committees – the Solid Waste Advisory Committee (SWAC) and the Metropolitan Solid Waste Management Advisory Committee (MSWMAC) – have reviewed the rate proposal. On March 18, the SWAC passed a motion to support the current rate setting process and the proposed rate of $108.00 per ton for the one-year term, provided sufficient time is allowed for notice to ratepayers.

The attached proposal provides background and a detailed breakdown of the rate calculation. If you would like more information or have questions about this proposal, please contact Kevin Kiernan, Division Director of the Solid Waste Division of the Department of Natural Resources and Parks, at 206-296-4385 or kevin.kiernan@kingcounty.gov. In accordance with

our agreements with cities, I am also forwarding copies of this proposal to members of the Regional Policy Committee. Pursuant to the Interlocal Agreements, the Regional Policy Committee, acting as the Solid Waste Interlocal Forum shall "review and comment on rate proposals".

Sincerely,

Dow Constantine
King County Executive

Enclosures

cc: King County Councilmembers
ATTN: Tom Bristow, Chief of Staff
Anne Noris, Clerk of the Council
King County Council Regional Policy Committee Members
Fred Jarrett, Deputy County Executive, King County Executive's Office (KCEO)
Rhonda Berry, Assistant Deputy County Executive, KCEO
Dwight Dively, Director, Office of Performance, Strategy, and Budget
Carrie S. Cihak, Director of Policy & Strategic Initiatives, KCEO
Sung Yang, Director of External Affairs & Government Relations, KCEO
Christie True, Director, Department of Natural Resources and Parks (DNRP)
Kevin Kiernan, Division Director, Solid Waste Division, DNRP