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2009 Draft Solid Waste Plan Comments
King County Solid Waste Division
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King County SWD:

Please consider the following comments to the 2009 Draft Solid Waste Plan.

I am aware that the present Draft plan represents an enormous investment in time and effort and hope that my comments can affect the planning process.

As a resident and business owner here in King County, I believe my perspective on the present 2009 Draft plan represents the concerns and vision of the majority of King County residents.

Warm Regards,

Bob Kommer
President, Summit Biofuels

COMMENTARY
King County Draft 2009 Solid Waste Plan

A close reading of the content of the King County Draft 2009 Comprehensive Solid Waste Management Plan constitutes the bulk of this letter. Additionally, an examination of the historical arc of waste disposal in King County highlights the possibilities and obstacles that drive the 2009 Draft plan.

To what extent does the 2009 Draft plan address King County's pressing urban waste management issues?

To the Plan's credit, recycling and reuse is emphasized. But, what does the Draft plan call for when it comes to that part of the solid waste stream (1,000,000 tons per year) that isn't recycled? The Draft plan ignores potential beneficial uses for this raw waste, as SWD plans to simply continue landfilling it. The Draft plan is inadequate in preparing the County for future waste management eventualities. The Plan's reliance on compaction, long-haul-to-landfill at newly minted transfer stations and the paucity of contemplation in the Plan about the environmental impact and increased costs this strategy will have, suggests a certain tone-deafness to concerns that are commonplace among County residents.

Problem: the 2009 Draft plan establishes landfilling of solid waste as the preferred solid waste disposal methodology. This runs contrary to County and State environmental policy and is out of step with public sentiment.

Conclusions: the Draft plan is clearly constrained by a bureaucratic focus on the continued landfilling of solid waste far into the future. This is most clearly illustrated by the solid waste division embarking on its most extensive ($397 million) capital program in 50 years, building out an infrastructure, dedicated to landfilling of solid waste. Bureaucratic constraints are also evidenced by the lack of any initiative aimed at exploring alternatives to landfilling.

The 2009 Draft plan, if implemented, will cause solid waste disposal costs to sky rocket and the County will fall behind many other American cities in the area of waste management, sustainable practices and climate change initiatives.

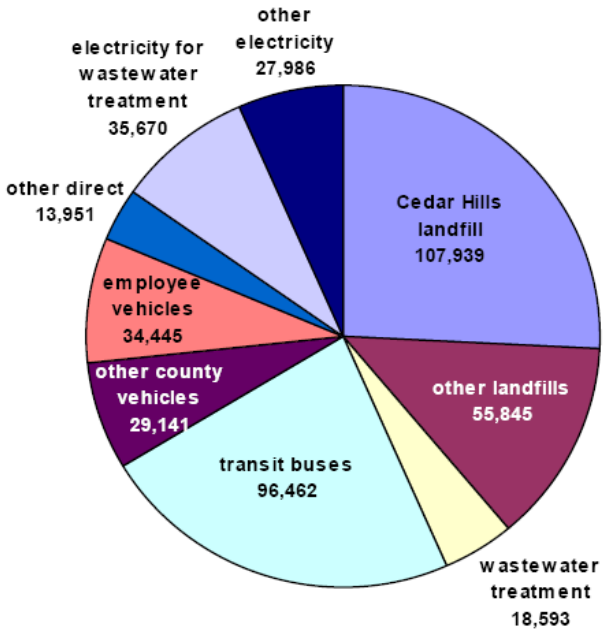
Proposal: Immediately halt the capital program aimed at upgrading of transfer stations and issue RFPs calling for alternative technologies that lower disposal costs, maximize diversion of waste from landfills, maximize recovery of recyclables and reduce the environmental impact of waste disposal

"This is also the first King County solid waste plan to look at ways to address climate change – one of the nation's leading environmental concerns." ***(Page 1-1)***

The plan dedicates much thought to ways to mitigate climate change. But consider what SWD is actually planning to do: once the County's raw solid waste is compacted at LEED certified transfer Stations, until 2018 it will be trucked to the Cedar Hills Landfill and buried, thereafter it will be hauled to distant regional landfills, 700 miles roundtrip and buried.

If SWD is serious about looking at ways to address climate change then the Draft plan, which mandates landfilling as the preferred disposal method, is blind to the fact that the chief source of King County GHG emissions (~40% of total GHG emissions) is

Chart 1: 2003 King County Greenhouse Gas Inventory



Source: King County Climate Plan, Feb. 2007 (totals 420,000 MTCO2)

methane emissions produced at landfills. When the County begins export of solid waste to distant regional landfills in 2018 the carbon footprint associated with solid waste disposal will be that much greater, due to added transport miles. Despite its rhetoric, the Draft plan moves the County in exactly the wrong direction when it comes

to climate change – towards increased GHG emissions and a larger carbon footprint associated with solid waste disposal.

On the important question of setting performance-based criteria, which would encourage alternative technologies that reduce GHG emissions, the Draft plan offers little guidance.

The 2006 Executive Order mentioned in the Draft plan "**requires that King County Departments employ innovative environmental management as a means for the region to mitigate and adapt to global warming",** and includes a provision for infrastructure meant to process solid and organic waste in innovative ways to buffer global warming impacts.

Landfilling of solid waste is neither innovative nor environmentally sound. It is expensive and it causes unnecessary environmental harm. The Draft plan flies in the face of the Zero Waste concept, which the County has adopted as a guiding principle. The Draft plan loses sight of a basic procedural issue, which is: if the County has a Zero Waste policy and an Executive Order requiring use of innovative technologies to treat solid waste to mitigate climate change, then the Draft plan needs to be aligned with these policies.

Instead, the Draft plan takes as a core tenet SWD's capital plan, whereby hundreds of millions of rate payer dollars will be spent on improvements to transfer stations aimed at more efficient landfilling of solid waste. Only a tiny fraction (less than 2%) of the transfer station upgrade budget is directed at recycling and recovery infrastructure. A couple of bins where recyclables can be collected (mostly from self-haulers) are the extent of material recovery infrastructure planned for our brand new "state of the art" recycling and transfer stations. In fact, more budget dollars will be spent on public art at the upgraded transfer/recycling stations than on recycling or increasing the diversion of raw solid waste from landfills.

The first sentence of the Solid Waste System Finance section of the Draft 2009 plan reads as follows:

"Solid waste fees in King County are among the lowest in the region." ***(Page 1-8)***

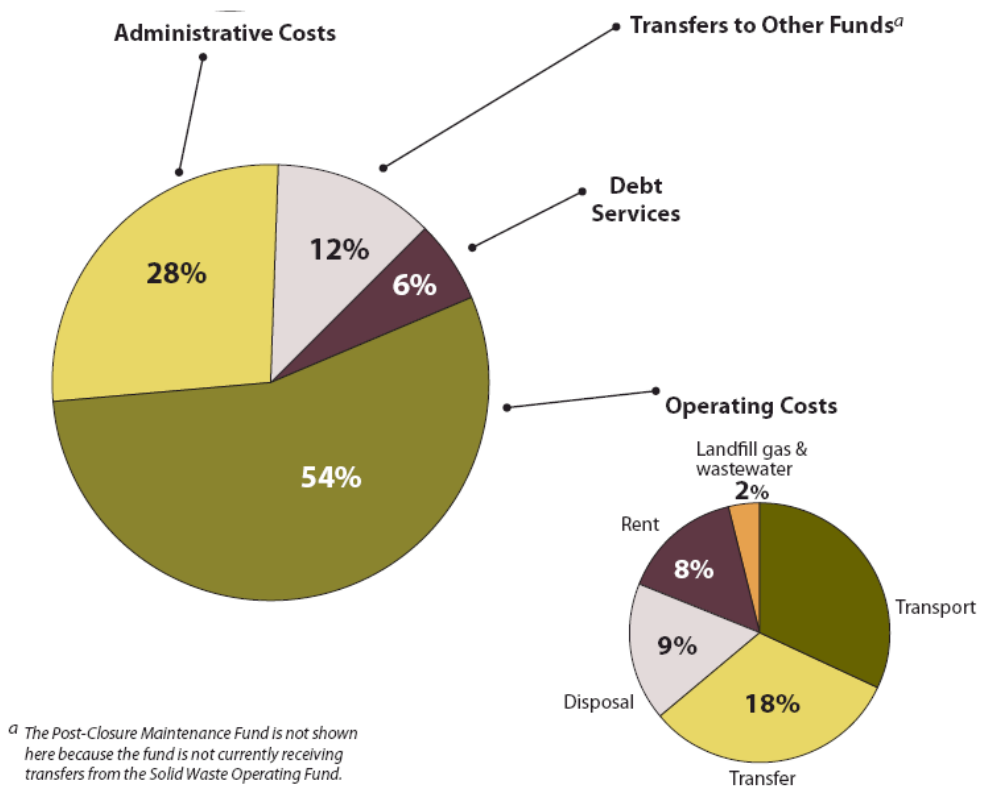
This statement is misleading. In fact, solid waste fees in King County are among the highest in the nation. According to a joint study by BioCycle and the Earth Engineering Center of Columbia University (BioCycle December 2008) the average landfill tip fee nationally was calculated to be $42.08/ton, with average tip fees in the states ranging from $15/ton in Oklahoma to $96/ton in Vermont. King County's published tip fee at its landfill is $95/ton; surcharges and taxes bring the total fee to $102.05/ton, certainly one of the most expensive landfills in the nation. Additionally, it's misleading for King County to compare its solid waste fees to other municipalities in the region because only King County owns and operates its own landfill. All other municipalities in the region (except for Pierce County, which disposes of its solid waste in the only privately owned and operated landfill in the region) transport their solid waste hundreds of miles to distant regional landfills. This is a much more expensive endeavor than burying raw waste at the Cedar Hills Landfill, which is located in-County.

"Even as the division embarks on its most extensive capital program in 50 years, keeping fees low and stable remains a fundamental objective." ***(Page 1-8)***

The Draft plan's claim that a primary objective of SWD is to keep fees low and stable is an impossibility considering King County's "highest in the nation landfill fee" will increase sharply as the full cost of King County's most expensive capital program in 50 years will be paid by the users of the system; i.e., King County residents and businesses. The Draft 2009 plan neglects to discuss how this "most extensive capital program in 50 years" will affect tip fees and future disposal costs.

In lieu of such discussion, the Draft plan presents the reader with misleading pie charts that use 2008 data to illustrate the breakdown of the various solid waste division expenditures. SWD's 2008 expenditures are not indicative of the future breakdown of expenditures. Implementation of the $397 million capital program will cause the debt service portion of expenditures to grow dramatically in coming years.

Figure 7-3. Expenditures in 2008
($94,517,927)



[a] The Post-Closure Maintenance Fund is not shown here because the fund is not currently receiving transfers from the Solid Waste Operating Fund.

Figure 7-3 (page 7-6 of the Draft plan) indicates that 6% of the $94.5 million in 2008 expenditures was for Debt Services. If all other expenditures remain flat in the coming years, after implementation of the capital program, the Debt Services expenditure will grow from $5.67 million a year to $35.67 million per year – from 6% of expenditures to over 28% of annual expenditures. **THE CAPITAL PROGRAM WILL ADD ~$30/TON TO SOLID WASTE DISPOSAL COSTS IN KING COUNTY!**

As I have alluded to above, the flawed vision of the 2009 Draft plan is not just the result of shortcomings in SWD's short-term and long-term commitment to landfilling of solid waste, but involves a lack of consideration given to alternatives. To a large extent, the adherence to exportation of raw waste can be attributed to the cautious nature of bureaucratic institutions. It is a common mentality among state and local politicians in the United States to stick with technology that is "tried and true". So it is unsurprising that a municipal waste management agency accustomed to the practice of landfilling its raw waste would merely refine that practice upon closure of its own landfill and begin exporting raw waste to a regional landfill, rather than changing course or exploring the implementation of different waste management technologies.

In the preparation of this 2009 Draft plan, it is crucial to consider the stifling effect of sunk costs on innovation. The capital program, which calls for renovating and/or replacing County owned and operated transfer stations in an effort to ready the County for waste export, could very well be a more expensive option compared to implementing innovative conversion technologies.

Within a bureaucratic framework the expenditures of the capital program are a disincentive to adopting a different technology any time in the future. Essentially, King County SWD officials will be locked in and reluctant to switch to a different solid waste disposal technique. In this way, the hesitance of King County to take a leading role in waste management innovation only increases the difficulty of adopting cleaner and more cost-effective approaches down the road.

What are the reasons behind the SWD's adherence to a policy of landfilling raw solid waste?

The reasons given by SWD for adherence to landfilling waste are that the only viable alternative to landfills is waste incineration and landfilling is less expensive and more environmentally sensitive than waste incineration. Solid waste incinerators have a bad name in spite of major control system advances made in the last decades that have

eliminated the vast majority of air pollution caused by incinerators built in the 80's and 90's. Newer, cleaner combustion technologies are available. But due to public perception, incineration is seen as a political non-starter.

The 2007 RW Beck Report backs-up the Draft plan's rationale for exporting its raw solid waste (compaction to long-haul to landfill) after the King County landfill closes in 2018. Yet, clearly the RW Beck Report arrives in a circuitous manner to its preordained conclusion (long-haul to landfill), rejecting all other technologies based on finely crafted criteria and specious reasoning. The RW Beck Report makes a number of assumptions that guarantee the waste export recommendation, chief among them:

- 20 percent of landfill gas escapes capture/combustion and is emitted to the atmosphere as methane. 80% capture of methane gases at landfills is highly unlikely. A more appropriate estimate for methane capture at a landfill is 50%, which would lead to the conclusion that landfills have higher GHG emissions than all other waste management technologies.

- All technologies that are not of the same scale as the present landfill (1,000,000 tons/yr) were eliminated from further consideration. This narrowed the technologies under consideration to landfill or thermal technologies.

- Multiple, smaller waste conversion facilities instead of a single large facility were eliminated from further consideration for no good reason. This eliminated all conversion technologies that might be implemented at the transfer station level from consideration.

- Upgrading of transfer stations (the "capital plan") was not included as a cost factor for waste export. The majority of the $397 million in costs to upgrade the transfer stations result from infrastructure specifically required for waste export. Ignoring these costs allowed the Report to conclude waste export was the least expensive solid waste disposal option for King County.

To its credit, the RW Beck Report calls for continued vigilance on the part of the County Council and updating of the Report as cutting edge conversion technologies become commercially available. While the County cites the RW Beck Report recommendation as its rationale for a $397 million capital plan, other inconvenient

recommendations of the Report are ignored. In spite of numerous entreaties to update the RW Beck conversion technology report, the County has taken the position that implementation of the capital plan will not be reconsidered and the RW Beck Report will not be updated any time soon (i.e. until its too late).

The zero-waste philosophy, originally a rallying call against waste incineration, has the laudable goal of a society that creates no waste that cannot be reused or recycled in some way. Unfortunately, in many ways, zero-waste advocates have stifled development and implementation of innovative waste disposal technologies by blocking efforts to reduce negative aspects of current waste practices in the name of eliminating them. It is irresponsible to advance the zero-waste ideology at the expense of major steps towards cleaner, less expensive waste management. Nevertheless, the forces of beaurecratic status quo and zero-waste advocacy have combined to defeat alternative waste management solutions in King County.

It has been my intention to reveal certain inconsistencies and underlying themes in the Draft 2009 plan. In an effort to steer the plan towards more ambitious goals it must be made clear that investment in waste management innovation in King County will be severely constrained by continued investment in infrastructure dedicated to landfilling of solid waste. Until and unless the County first exhausts all reasonable efforts to implement alternative waste disposal approaches that align with its zero-waste and climate change policies the transfer station upgrade program should be put on-hold.

A central tenet of the Draft 2009 plan should be diversion of solid waste from landfill to beneficial use. The King County SWD should issue RFPs as soon as possible, requesting proposals for innovative conversion technologies that might be implemented at either the landfill or transfer station level.