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DEPARTMENT OF
PUBLIC WORKS

SOLID WASTE DIVISION

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October 16, 1990

Transportation and Community Development/
Budget and Finance Committees
Sacramento, California

Honorable Members in Session:

SUBJECT: DIRECT HAUL OF THE CITY OF SACRAMENTO SOLID WASTE COST ANALYSIS -
INFORMATION REPORT

SUMMARY

This is an informational report describing the range of cost increases which could be expected as a result of direct haul of the City of Sacramento's solid waste, once the City landfill reaches final capacity. The Solid Waste Division of the Department of Public Works has analyzed the additional costs associated with two disposal options discussed in the Draft Environmental Impact Report (DEIR) on Direct Haul of the City waste to the Sacramento County Kiefer Boulevard Landfill. The most expensive option, based on transportation and disposal cost increases, is direct haul of all the City's solid waste to the County landfill. The least expensive option is division of the City's solid waste stream to three separate landfills, with composting of all the separately collected yard and garden waste.

Other disposal options will be presented to the City Council at the conclusion of the contractor selection process for alternatives to Direct Haul.

BACKGROUND

The City of Sacramento has been disposing of its municipal solid waste at the 113 acre 28th Street landfill since the early sixties. In late 1992 the City of Sacramento's 28th Street landfill is estimated to reach final capacity and close. For many years, the City has been examining alternative waste disposal strategies in anticipation of the landfill closure. Recently, the City Council approved the preparation of an EIR on Direct Haul of City waste to the Sacramento County landfill on Kiefer Boulevard. Concurrently the City requested proposals from the private sector for alternatives to direct haul. A selection committee is evaluating three proposals for a materials recovery facility/transfer station (MRF/TS).

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The Draft Environmental Impact Report (DEIR) on Direct Haul of the City of Sacramento Solid Waste to the Kiefer Boulevard Landfill was released to the public for comment on August 24, 1990. The report investigates the environmental impacts of the six variations of direct haul of the City's solid waste to the County landfill and the twelve alternatives to direct haul.

In the DEIR six variations of the proposed project include direct haul of all the City's solid waste to the county landfill, and direct haul of the City's solid waste to the County landfill in conjunction with one or two of the following options: residential curbside collection of recyclable materials, composting all of the separately collected yard waste, and disposal of the yard waste at L&D landfill. Each of these are considered variations contained within the proposed project.

Direct haul of all the City's solid waste to the County landfill is estimated to be the most costly variation.

Twelve alternatives were also discussed in the DEIR. Of these alternatives, division of the City's solid waste stream between the Kiefer Boulevard, Yolo County, and City landfills, with the implementation of a full scale yard waste compost program, was considered to be the environmentally superior alternative. This alternative is not a long term solution to the City's waste disposal needs; however, it would reduce air quality impacts by 50% when compared with the project variants. In addition, it would require the least change in the present Solid Waste Division activities. The additional costs of this alternative are estimated to be the lowest of all the direct haul options.

Concurrent to the preparation of the DEIR on Direct Haul, the City is conducting a contractor selection process which will culminate in the selection of a firm which would build and operate an MRF/TS. This selection process will produce an alternative similar to the MRF/TS alternative which is discussed in the DEIR. Although it was concluded in the DEIR that this alternative was not immediately feasible, due to the time required to implement, it is a long term option.

FINANCIAL DATA

City Staff has identified the disposal and transportation cost impacts associated with direct haul of the City's solid waste to the County landfill and division of the City's solid waste stream to three landfill's. These costs were calculated for 270,000 tons per year (261,566 tons were disposed of at the 28th Street landfill in 1989.). Also included were estimates of the quantitative incremental change in the Solid Waste Division service charges. Both cost analyses make several important assumptions. First, the disposal cost (tipping fee) used is \$10.50 per ton for the County landfill and \$18.25 per ton for Yolo County landfill. The City of Sacramento's 28th Street landfill disposal cost is \$5.65/ton. These are current disposal costs and are expected to increase in the near future. Second, the 28th Street dispatch facility is assumed to be the base of operations for Solid Waste Division vehicles. Third, June 1990 diesel prices are used as a basis for equipment mileage charges. The cost analysis for direct haul of the City's solid waste to the

County landfill also assumes that in order to utilize the existing equipment most efficiently, the work schedules of collection workers will be adjusted.

Direct haul of the City's solid waste to the County landfill would cost an additional \$10.3 million dollars per year in operational and disposal expenses and would increase the monthly service charges by approximately 53%. Increased operational expenses associated with transportation of the municipal solid waste to the County landfill account for the majority of the increase. Over the course of a year the additional transportation costs would be \$7.5 million. This additional transportation cost is based on a slight increase in the number of trips to the disposal site compared with the present operation. Also, direct haul of the City's solid waste to the County landfill requires some additional equipment to support direct haul to the County landfill, (commercial front loaders and drop box trucks). This additional equipment is required due to the increased number of trips these vehicles make to the disposal facility as compared with a residential side loader.

Division of the City's solid waste stream would have the smallest increase in both disposal and transportation costs. It would involve hauling the City's waste to three separate landfills, Sacramento County's Kiefer Boulevard landfill, Yolo County's landfill, and continued use of the City of Sacramento 28th Street landfill. This alternative assumes that all the separately collected yard waste is accepted by a large scale compost program and is not landfilled. The equivalent tipping fee for the compost program represents the net cost of operation after revenues. If this alternative were implemented by mid 1991, the remaining one year of capacity at the 28th Street landfill could be extended to six or seven years. This assumes that the commercial waste collected by the City would be shredded or baled to increase its density and conserve the remaining landfill space. Such an operation could also include recovery of some recyclables from the commercial waste stream.

Division of the City's solid waste stream would cost an additional \$5.3 million dollars per year in transportation and disposal costs. The Solid Waste Division's monthly service charge would increase by 27%. For the purpose of this cost analysis shredding was used as the method of densification because a shredder would also be used by a City compost program. The transportation costs associated with this alternative, \$3.0 million, are less than those for direct haul of the City's solid waste to the County landfill due to the reduction in vehicle miles driven. Southern residential routes would go to the Sacramento County landfill while northern residential routes would be sent to Yolo County landfill. The cost analysis for division of the City's solid waste stream is conservative because the additional mileage and labor costs were calculated based on the entire collection system's waste centroid rather than two separate waste centroids for two separate landfill destinations.

The costs associated with an increase in tipping fees at the Sacramento County landfill to \$14.75 per ton were analyzed. An additional \$1.32 million dollars per year for direct haul of the City's solid waste to the County landfill and an additional \$330,000 dollars per year for division of the City's solid waste stream would be required as a result of this change. Rates would increase by 6% and 2% respectively for direct haul of the City's solid waste to the County landfill and

division of the City's solid waste stream. This increase in the County landfill's tipping fees was recently approved by the County Board of Supervisors.

The costs associated with a 20% increase in diesel fuel prices were examined. Equipment mileage charges would increase from \$3.05 per mile to \$3.12 per mile. An additional \$160,000 dollars per year for direct haul of the City's solid waste to the County landfill would be required as a result of this change. Division of the City's solid waste stream would have a negligible increase. Rates would increase by an additional 1% for direct haul of the City's solid waste to the County landfill. A rate increase of less than 1% would be required for division of the City's solid waste stream.

Should both the disposal costs and diesel prices increase, the rate increase would be an additional 7% for direct haul of the City's solid waste to the County landfill and 2% for division of the City's solid waste stream. As shown by this analysis, direct haul costs are much more sensitive to disposal cost increases than to fuel price increases.

A summary of the rate impacts of each alternative follows:

<u>ALTERNATIVE</u>	<u>ADDED COSTS</u>	<u>RATE IMPACT</u>
1. Direct Haul to County	\$10.3 million	53%
- With increased tipping fee	\$11.6 million	59%
- With increased fuel cost	\$10.5 million	54%
2. Division to three sites	\$ 5.3 million	27%
- With increased tipping fee	\$ 5.6 million	29%
- With increased fuel cost	(negligible effect)	

POLICY MATTERS

Although division of the City's solid waste stream requires the smallest rate increase, it must be determined whether disposal of City waste in the Yolo County landfill is politically acceptable. Pending legislation (Cortese AB 2296) which addresses the time gap between the old County Solid Waste Management Plans (COSWMP) and the approval of the new Integrated Waste Management Plans may affect the City's ability to haul its waste to Yolo County. The current version of the bill would require review and approval by the Yolo County Board of Supervisors, and inclusion in Yolo County's new Integrated Waste Management Plan. In addition, this alternative must be implemented one year ahead of the anticipated closure date of the 28th Street landfill (i.e. by mid 1991).

Recycling goals must be considered in any decision made regarding waste disposal. Direct haul of the City's solid waste to the County landfill would not involve any additional recycling beyond the curbside recycling program already scheduled to be implemented. Division of the City's solid waste stream would include the scheduled curbside recycling program and a large scale composting program, which would accept all the separately collected yard waste.

MBE/WBE

Not applicable.

RECOMMENDATION

Forward this report to the City Council to file for information.

Respectfully submitted,



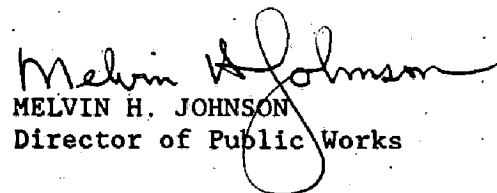
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October 16, 1990
All Districts

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