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DEPARTMENT OF  
PUBLIC WORKS

SOLID WASTE DIVISION

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CALIFORNIA

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August 8, 1989

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

Honorable Members in Session:

SUBJECT: STUDY OF WASTE COLLECTION SERVICES TO COMMERCIAL CUSTOMERS

#### SUMMARY

This report supercedes the staff report on the same subject submitted at the July 7, 1989 meeting of the Joint Committees.

Brown and Caldwell Consulting Engineers have completed a study on the waste collection service provided by the City to commercial customers. This report transmits the Brown and Caldwell Final Report and summarizes its findings. Also presented are City staff recommendations in response to the Brown and Caldwell study.

#### BACKGROUND

On July 7, 1989, staff submitted to the Joint Committees of Transportation and Community Development/ Budget and Finance a report on this same subject. At the July 7 meeting, staff recommended continuing the matter until after the budget was adopted. The Joint Committees directed staff to resubmit the report in early August, 1989. During the interim, staff has further evaluated the issues and revised some of the analysis and recommendations. This report supercedes the one submitted on July 7, 1989.

On February 23, 1988 the Joint Committees of Transportation and Community Development/Budget and Finance considered a staff report on the issue of privatization of all solid waste services. After significant public testimony and discussion, the Joint Committees voted to reject privatization and directed staff to come back to the Joint Committees with a series of reports on the solid waste and garden refuse programs. Among the requested reports was one on the possibilities for improving the efficiency and cost effectiveness of the solid waste collection services provided to commercial establishments. Subsequently, the Committees reviewed and approved a scope of services for a consultant study on the City's commercial collection system. On August 23, 1988 the City Council adopted Resolution No. 88-736 which authorized the City Manager to negotiate and execute an agreement with Brown and Caldwell to conduct a study of the City's solid waste collection services to commercial customers. The selection of the consultant was recommended by a special committee which included representatives of various City Departments and customers of the City's commercial collection services.

The study by Brown and Caldwell has now been completed and the Final Report on the City of Sacramento Commercial Waste Collection Study, dated April 25, 1989, is herewith submitted along with this staff report.

The scope of the Brown and Caldwell study included the following items of work:

- Time and motion studies for front loader and rear loader commercial collection routes.
- Evaluation of existing system productivity.
- Customer survey.
- Community Workshop.
- A survey of rates for three California cities.
- Identification of opportunities for resource recovery.
- Identification of alternatives for providing service to the commercial customers in the City.

**BROWN AND CALDWELL STUDY FINDINGS AND RECOMMENDATIONS**

The Final Report by Brown and Caldwell details the findings of the study. Included in these findings are these items of significance:

1. Commercial customers rated the quality of service as

excellent	4%
good	60%
fair	36%
poor	0%

2. Commercial customers described the rates for service as

appropriate	28%
too high	44%
too low	0%
didn't know	28%

3. Forty percent of customers surveyed were not aware of the additional City services supported in part by the commercial garbage collection fees.

4. Time and motion studies showed that front loader trucks are more productive than rear loader trucks in quantity of waste collected, but comparable in time per unit container capacity.

5. Off route travel time (non productive travel time) averaged 10 to 22 percent for front loaders and 7.2 to 17.1 percent for rear loaders.

6. Wide variations exist in total route times with some routes taking over 11 hours and others only 6 hours.

7. The commercial collection service is customized to provide a wide range of collection services that include the use of plastic bags, drop cloths (blankets), carts, and 1 to 6 cubic yard bins including compactor bins.
8. The bin rates charged residential commercial customers (apartments) average about 25 percent higher than the rates charged other commercial customers.
9. The level of service provided and institutional arrangement used varies in the three other cities studied. The City of Fresno provides all commercial collection within the City. The City of San Jose franchises all commercial collection to one private firm. The City of San Leandro provides commercial collection service to producers of garbage with other commercial establishments receiving private collection service. All three cities use one person crews on front loaders whereas Sacramento uses two person crews. With the exception of rates for small bins which appear high, the Sacramento rates for service are within a reasonable range of the rates charged in Fresno, San Jose, and San Leandro.
10. The best opportunities to reduce rates for commercial collection service in Sacramento are to increase productivity by reducing the number of customized services offered (or charge extra for them) including special time of day collection, and to revise the rate structure to eliminate the subsidies of other solid waste programs.
11. About 22 percent of customers surveyed receive dual service from the City and a private company. The City collects the garbage as required by the City Code, and the private company collects the other wastes. This practice results in lower productivity overall than if all waste from the customer was collected by the City.
12. A direct comparison of City rates and local private collector rates is not possible since the private companies did not reveal rate information. Private companies determine rates in part by profitability of service, competition, route efficiency and truck utilization, and they have the flexibility of negotiating different rates for different customers. The City bases rates on a uniform rate schedule without regard to special problems or customized service to some customers. The City also supports some other solid waste services through commercial collection rates.
13. Resource recovery opportunities do exist, but are limited by the limited service (garbage) taken by the commercial customers.

STAFF ANALYSIS

Staff agrees with Brown and Caldwell that productivity increases are possible if current policies are changed in the manner of service delivery and the level of customized services allowed and charged for. However, efficiency is only one value among many which must be considered before making policy changes. Tradeoffs with other values are identified throughout this staff report, along with opportunities for improved efficiency.

A single provider, whether public or private is not necessarily more efficient than multiple providers if service is highly customized (e.g. specific time of day pickup requested by the customer, customer facilities and containers requiring multiple collection vehicles and crews to physically provide the service). And, uniform service is not necessarily less expensive if multiple providers are working in the same area. Theoretically, the greatest potential to maximize efficiency occurs with uniform service and a single provider. But, experience indicates that monopolies do not necessarily provide the most efficient service just because the potential for it exists.

An important consideration in any proposed system change is the impact of direct long haul to the County landfill in 1992. Careful review should be given to any potential change to assure that it is valid after direct long haul is implemented. For example, Brown and Caldwell recommended using more front loaders and one person crews for front loaders. The economics of this will be different for current conditions and for direct long haul. At the present time the cost of the extra helper may be more than off set by the savings realized from the driver not having to leave the truck to unlock gates, position bins, etc. But with long haul to the County landfill, additional non productive travel time may result in the extra helper being uneconomical.

STAFF RECOMMENDATIONS

Staff recommends improving the efficiency of the existing City provided garbage collection service to commercial customers by making the following changes which are consistent with the Brown and Caldwell recommendations:

- a. Establish additional charges for specific customized services.

*Discussion.* Customized services which increase costs include unlocking and opening container storage areas, extra maneuvering of containers due to site layout restrictions, handling non-standardized containers, and many other special services. Currently, there is no extra charge for these services.

*It should be noted, however, that many developments are required as a condition of City approval to provide full enclosures for solid waste bins. It could be argued that it is not appropriate to have additional charges for servicing these required facilities. On the other hand, the service costs could be considered a reasonable extension of the conditions of approval of the development as is already done with other required site improvements.*

- b. Consider establishing an additional charge for special time of day collections.

*Discussion.* Efficiency of collection is severely impacted by the requests for special time of day collection. Sometimes it is the customer that requests a certain time of day (often early morning) to avoid conflicts with parking or business operations such as delivery traffic in alleys. We also receive requests from neighbors to avoid early morning collections near residential areas due to the noise. These practices create additional non productive travel time which reduce efficiency and increase overall system cost to those customers who use only the standard service. Establishing an additional charge for special time of day pick-ups could allow for a continuance of the service without penalizing the other customers.

*Problems may arise when an adjacent resident requests a commercial establishment to subscribe to a more expensive special time of day pick-up. Land use planning and zoning which allow adjacent commercial and residential development contribute to this problem. An argument could be made that this special service should be provided at no additional cost as a result of City land use policies.*

- c. Maximize the use of standardized bin containers and front loader collection vehicles.

*Discussion.* Brown and Caldwell recommended increasing productivity by using front loaders as much as possible. Front loaders collect bins of various sizes. Increasing the number of front loaders is possible; however, rear loaders may still be required in some areas where space restrictions or pavement conditions limit the use of the larger, heavier front loader trucks. Also, rear loaders will be required as long as containers other than bins are allowed. Currently, other containers and drop cloths are also collected. Because of the number of issues involved, it seems appropriate for staff to take into consideration the efficiency and costs involved when replacing existing vehicles. Then the most economical combination of vehicles in the fleet will result for the type of services provided and for the physical constraints of the facilities served.

- d. Study the specific implications of the Brown and Caldwell recommendation to use only one person crews in front loader trucks.

*Discussion.* Brown and Caldwell identified that the other Cities studied use one person crews for front loader collection vehicles. Yet, a few years ago, the City added a General Worker position to the front loader crew to assist the driver with handling bins that were in awkward locations and required positioning prior to loading. Safety, efficiency, labor relations, and other factors may also be involved. Although staff believed at one time that the extra person was warranted, it is appropriate to review the practice in light of the Brown and Caldwell recommendations and the closure of the City Landfill. As noted elsewhere in this report, the planned direct long haul to the County landfill could impact the cost effectiveness of the General Worker position.

- e. Implement the Brown and Caldwell recommendation to eliminate the allowance in the City Code for dual service to commercial customers by the City and private collectors, using an implementation plan and schedule that will be sensitive to recycling.

*Discussion.* Collection efficiency can be substantially improved by having no more than one collector serve a commercial establishment. As noted earlier in this report, the City Code requires the City collect garbage, but not dry waste. Consequently, a substantial number of customers separate the dry waste and garbage for collection by private haulers and the City respectively. Somewhat implicit in this recommendation is the idea that the garbage and dry waste will be comingled in the bin serviced by the City. This may be counterproductive to specific recycling strategies that may be adopted by the Council in the near future. If commercial establishments separate recyclable materials for separate collection, this will not be a problem. But, if commercial dry waste is to be processed at a central recycling facility, comingling the garbage is not advisable. In any case, having the City provide all the collection service (except some source separated recyclables such as glass and cardboard) will improve collection efficiency and City control of recyclable materials in the commercial waste stream.

- f. Revise the City Code to require that only City owned and maintained containers (bins) be used for City provided collection service as is currently done for 90-gallon containers for residential customers.

*Discussion.* An issue not addressed in the Brown and Caldwell Report is the use of non City provided bins for collection by City crews. That is, many customers rent bins from the private garbage hauling companies while subscribing to City collection service as mandated by the Code. Frequently, these privately owned bins are not maintained properly by the owner or renter, and when damage occurs, the City is held responsible for "excessive wear due to abusive handling". In effect, the City is having to maintain the privately owned bins while City bins are not used. Also, the use of non City bins complicates enforcement activities and makes it harder for the collection crews to determine which bins to service. The collection service, bin maintenance, and Code enforcement would all be more efficient if the City crews collected solid waste only from City provided bins. There may need to be some exceptions for large institutions which adequately maintain their own bins such as school districts. Or, the City could arrange to purchase the existing inventories at fair market value and repaint the bins to the standard City specifications for easy identification. Compactor bins maintained by the owner would still be allowed.

- g. Revise the City Code to authorize the Solid Waste Division Manager to require in specified areas the use of locking bins and the marking of the service address on bins.

*Discussion.* Another issue not identified in the Brown and Caldwell report is the occasional need for locking bins and service addresses marked on bins. City lockable bins and master locks are provided upon request at a small cost. This assists with reducing scavenging, reducing litter around bins, and improves service and aids in code enforcement and nuisance abatement. However, we have no authority to require these whether or not they are serviced by the City or a private waste hauler. The coordinated efforts of both the Solid Waste Division of Public Works and the Nuisance Abatement Division of Planning and Community Services would be more efficient and effective with these improvements in certain trouble areas including some downtown alleys.

- h. Provide an active enforcement program to assure that the City Code is followed and that City mandated service is used.

*Discussion.* Enforcement activities have been suspended pending any system changes that may result from the Brown and Caldwell study. Some commercial establishments voluntarily comply with the City Code requirements for garbage collection. However, a number of places violate the Code by subscribing to private garbage collection service. The Solid Waste Division has received complaints about violations from some businesses which comply with the code. This results in a smaller quantity of garbage collected by City trucks in a given service area and causes more unproductive travel time and lower productivity. This eventually means higher rates for those accounts which do comply with the Code. Past experience indicates that the additional revenue generated by Code enforcement more than compensates for the cost of a Utility Services Inspector(s), not to mention additional value of increased productivity of the system.

### FINANCIAL DATA

Implementing various changes will affect the cost of service and the rates charged. Depending on which specific recommendations are implemented, the impacts on customers will vary. Reductions in overall system cost are possible if some policy changes are made in the level of service provided and the method of service delivery. However, a few customers may even experience a cost increase if their service is currently being subsidized by other customers and if the rate structure is modified to eliminate the disparity.

### POLICY MATTERS

The basic policy issues which underlie any decisions to change the existing system are:

1. The assurance of public health and safety by the City mandating basic garbage collection service.
2. The basic types and levels of waste collection service to be provided to commercial facilities.
3. For City provided services, the efficiency of uniform service versus the often requested higher level customized services which erode productivity and increase costs.
4. For City provided services, the rate structure used to pay for the service costs. (Specifically, rate issues include subsidies for other solid waste programs, internal subsidies within commercial collection services, and additional charges for customized service.)
5. Whether or not the City should eliminate the allowance for dual service to commercial customers by City and private collectors as recommended by Brown and Caldwell.

### MBE/WBE

Currently, 81% of all Solid Waste Division employees are minorities. It therefore contributes significantly towards City goals for minority employment. It is not known whether any private waste collection companies are MBE/WBE firms. The policy decisions made about the institutional arrangement for providing solid waste services could impact the employment of minorities in the City.

### RECOMMENDATION

Staff recommends the Joint Committees forward this report to the full Council and recommend the Council accept the Brown and Caldwell Report, and direct staff to:

1. Develop a proposed standard commercial service and a schedule of extra charges for customized services (which may include a charge for special time of day collection).
2. Review the efficiency of the collection system when replacing existing vehicles in order to provide the most economical combination of vehicles in the fleet for the types of service provided and the physical constraints of the facilities served.
3. Study and report back on the implications of the Brown and Caldwell recommendation to use one person crews on front loader trucks.

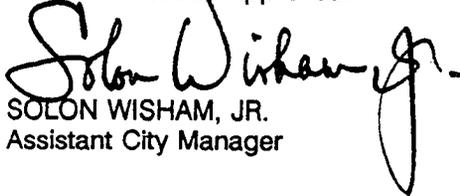
- 4. Study and report back on the Brown and Caldwell recommendation to eliminate the allowance for dual service to commercial customers by City and private collectors, being sensitive to City recycling policies.
- 5. Study and report back on the merits of the City providing and maintaining bins for commercial customers serviced by the City, identifying standards for exemptions and providing an implementation plan and schedule.
- 6. Develop a revision to the City Code which authorizes the Solid Waste Division Manager to require the use of locking bins and service address on bins at specific locations.

Respectfully submitted,



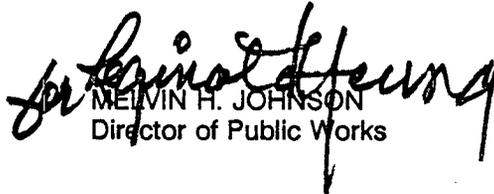
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All Districts