

SOLID WASTE MANAGEMENT COMMISSION  
 OF THE CITY OF BERKELEY  
 Room 103, City Hall  
 Berkeley, California 94704

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DRAFT OF RECOMMENDATIONS BY SOLID WASTE MANAGEMENT COMMISSION ON RECYCLING  
 NEWSPAPERS

There is general agreement within the community that recycling newspapers is beneficial in extending our depleted forest reserves, saving energy and extending the life of Berkeley's present landfill.

In addition to "paper drives" by volunteer groups such as Boy Scout troops, newspapers have been collected in Berkeley by two other methods: recycling centers which are part of the Community Solid Waste Reduction and Recycling Program, and through city-wide curbside pickup by the Volunteers of America for seven months in 1971. The recycling centers have conducted a highly successful operation for three years as part of their recycling and educational programs. The current volume of around 109 tons per month of newspapers collected is steadily increasing with the opening of a third site by the Center for Environmental Symbiotics. The Volunteers of America program foundered in part because it was undertaken at a time when price for old newspapers was at the lowest point in several years, and partly because of its very success: the response overwhelmed them.

The following figures compare the amount of newspapers collected by these two methods and the 475 tons per month it is estimated could be collected through a sustained curbside collection:

	<u>Amount</u> <u>Collected</u> <u>Tons/Month</u>	<u>% of</u> <u>Berkeley's</u> <u>Newspapers</u>	<u>% of</u> <u>Berkeley's</u> <u>Refuse</u>
Newspapers consumed in Berkeley based on the national average of 11 lbs/capita/month	632	100	19
Newspapers collected at recycling centers	109	17	3
Newspapers collected by Volunteers of America at end of their program, July 1971	433	68	13
Newspapers estimated could be collected with a sustained curbside pickup	475	75	14

City-wide collection of newspapers is becoming more common elsewhere. Some communities, including Madison, Wisconsin, have placed bins throughout the city for the deposit of old newspapers. The difficulty with this plan is that trash and magazines may be thrown into unsupervised bins. Other cities such as San Francisco have installed racks for bundled newspapers on the regular route trucks. Although this is a possibility in Berkeley, our trucks do not lend themselves to racks easily or inexpensively. The other method, in use by cities such as Hempstead, New York, is to have a separate pickup made once a month. Hempstead has found they can pick up 10 tons per day with a packer truck and a crew of three men.



The response to the Volunteers of America program in 1971 demonstrated that Berkeley's residents will heartily support curbside pickup of the city's old news. The principal difficulty with the Volunteers program was insufficient planning both in picking up newsprint and in obtaining adequate guarantees for a market. With this background, members of the Commission have met with representatives of several firms who either broker or recycle old newspapers. They have all indicated firm interest in negotiating a long-term contract with the city for the amount of paper that can be collected through a city-wide pickup. The price paid to the city would be a floor price specified in the contract or market price, whichever is higher. The current market price for old news, tied and bundled, is about \$14 per ton or \$19 per ton for sorted and baled paper. A floor price would be about \$5 or \$6 per ton less. Contracts can be negotiated for at least 2 years, longer with some firms. This sort of contract would enable the city to instigate a long range program somewhat insulated from the vagaries of the waste paper market.

After studying the alternative methods of pickup, it was decided to analyze the economics of a separate city-wide pickup of tied bundles using 25 yard, rear loading packer trucks of the type used now for refuse, with a crew of three men. The basis for this analysis is:

2 packer trucks and crews could pick up the newspapers (based on Hempstead's experience).

The monthly cost of operating a packer truck is as follows: 1 driver @ \$893/month, 2 helpers @ \$838/month, both plus 30% fringe benefits, plus operating, maintenance and amortization @ \$600/month, for a total of \$3940/month.

The packer trucks would deliver the papers to a sorting and baling depot. The sorting, automatic baling, and bale handling would require 3 men. The cost would be: 3 men @ \$838/month plus 30% fringe benefits; maintenance, operation and amortization of equipment @ \$150/month, and rent of a building for the depot @ \$500/month, for a total of \$3918.

Any refuse diverted from Berkeley's present dump at the Marina extends the life of that dump and postpones the day when more expensive (although certainly environmentally more sound) methods of disposal will be used. At present there is no cost to the city for disposal of residential refuse at the Marina site. Any other method which will be used when this site is filled will cost at least \$5 per ton. This is, therefore, the figure used for the value of extending the life of the present dump. Hempstead, New York, for instance, credits its newspaper collections @ \$9 per ton incineration cost saved. Disposal costs can only go up in the future.

#### ESTIMATE OF CITY-WIDE OLD NEWSPAPER PICKUP COST AND RETURN

##### RETURN

Sale of sorted and bundles newspaper, 475 tons/month @ \$19 per ton	\$ 9,025/month
Extension in the life of the present landfill @ \$5 per ton	2,375
1 packer truck diverted from refuse collection	3,940
Total	<u>\$15,340</u>



OPERATING COST

2 packer trucks and crews	\$ 7,880
Sorting and baling	3,918
Supervision and clerical	1,000
Total	<u>\$12,298</u>

NET SAVING PER MONTH \$ 3,042

CAPITAL EQUIPMENT REQUIRED

1 packer truck, 25 yard, rear loading (1 to be diverted from refuse)	\$28,000
1 continuous baler, 5 to 7 tons/hour capacity	16,000
Material handling equipment for newspapers and bales	6,000
Total	<u>\$50,000</u>

If the price paid to the city dropped to \$14/ton, the saving would be \$667/month. If the paper were to be sold as picked up, without sorting or baling, the return based on a price of \$14/ton would be \$12,965, with an operational cost of \$8880 per month, yielding a saving of \$4085/month. If the price for unsorted and unbaled old news dropped to a floor price of \$8/ton, the saving would drop to \$1235/month. If the newspaper collection, sorting and baling is contracted out by the city to a local, capable organization, the labor cost might be substantially less.

It would also be possible to use stake trucks instead of packer trucks to make the pickup. This would reduce the capital expenditure by about 25% but might require an additional crew for newspapers.

RECOMMENDATION

In view of the fact that it is now possible for the city to negotiate a long-term contract for old newspapers at favorable terms, remembering the enthusiastic response to the Volunteers of America curbside pickup in 1971, and viewing the successful city-wide pickups in other cities, it is the recommendation of the Solid Waste Management Commission that city-wide, curbside pickup of bundled old newspapers be undertaken promptly either by the city's own department or by contracting with a capable local group.