# CITY OF SACRAMENTO

DEPARTMENT OF PUBLIC WORKS
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February 21, 1985
FA:84195:MLH:revampre(12)

M. H. JOHNSON
Director

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

Honorable Members in Session:

Subject: Implementation of a City-wide 90 Gallon Container Program

**SUMMARY**

The attached report discusses the process for mandating the implementation of 90 gallon uni-container refuse collection system. It includes total program costs, purchasing and attrition plans, and a proposed phasing schedule. Staff is requesting that the joint committees approve the implementation of this program by:

1. Recommending adoption of the attached resolution mandating City-wide 90 gallon container use as appropriate to the full City Council.

2. Directing staff to develop a final routing schedule and budget which would indicate how a 90 gallon container program would operate during 1985-86. This information is to be considered during the 1985-86 Proposed Budget process.

**RECOMMENDATION**

Based upon the attached report, staff would request that the joint committees recommend the following:

1. That the 90 gallon container program be mandated for all residential routes. In fiscal year 1985-86, the following criteria will be used:

   a. Priority 1 - Current 90 gallon routes where participation is less than 100%.

   b. Priority 2 - 65% Curbside routes where residents must currently containerize garden material because there are no curbs and gutters.

2. That staff be directed to incorporate the purchase of equipment and necessary routing changes for the institution of five new 90 gallon routes as a part of the 1985-86 Solid Waste Division appropriation request.

3. That the appropriation of necessary funding for this program be reviewed within the context of the 1985-86 Proposed Budget.

4. That staff be directed to monitor the success of voluntary garden refuse containerization and to report back on the economic feasibility of holding an election to mandate residential vegetal waste containerization.

Respectfully submitted,

REGGIE YOUNG
Deputy Director of Public Works

Approved:

MELVIN JOHNSON
Director of Public Works

RECOMMENDATION APPROVED:

SOLON WISHAM, JR.
Assistant City Manager

# CITY OF SACRAMENTO

February 21, 1985
FA:84195:MLH:revampre(12)

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

Honorable Members in Session:

Subject: Implementation of a City-wide 90 Gallon Container Program

**SUMMARY**

The following report provides an overview of the process which would be used for mandating the implementation of 90 gallon uni-container refuse collection. It includes total program costs, purchasing and attrition plans, and a proposed phasing schedule. Staff is requesting that the joint committee recommend the approval of this program and the adoption of attached resolution mandating the same.

**BACKGROUND**

A. Service Requirements

The Solid Waste Division is responsible for collecting residential waste materials from 65,000 dwellings. Residential customers have a choice of three basic service options including:

- In yard collection (typically called "backyard service")
- Curbside collection (including disabled persons who may receive backyard service for a curbside fee)
- 90 Gallon container collection

Each of these services requires separate collection of uncontainerized garden and vegetal material, except for the 10% of local customers who must containerize garden waste because there are no curbs or gutters in front of their residences. The number of collection options (i.e. backyard one can, backyard two cans together, backyard two cans apart, curbside one can, curbside two cans together, etc.) means that the Solid Waste Division's operational expenses are relatively high; this, coupled with the need to separately collect vegetal material, means that City of Sacramento refuse collection costs are higher than would they would be if productivity and cost effectiveness factors were the highest priorities.

B. Legal Requirements

Before any garden refuse collection system changes can be considered, the provisions of the 1977 initiative Measure "A" should be examined. This measure stated that:

> "Yard and garden refuse deposit and collection shall be conducted consistent with Sections 19.401 et seq. of the Code of the City of Sacramento to the end that mandatory containerization of yard and garden refuse shall not be required in the City of Sacramento...That the ordinance enacted pursuant to Section 1 shall not be repealed or amended except by a vote of the majority of the electors of the City of Sacramento at any municipal election".

Measure "A" prohibits **mandatory containerization of garden and vegetal waste** material without a majority vote of the people. However there is currently no law which restricts how **refuse collection** can be handled, leaving the City Council to decide if it is more beneficial to move toward an automated, lower-cost program. The Council also has the right to determine **if it wishes to continue to provide some level of Garden Refuse service**, or because of rising costs, eliminate this program.

Questions related to Garden Refuse service are not the only considerations which have to be factored into a 90 gallon program cost/benefit analysis. Any automated program will reduce the number of refuse collection workers needed by the Solid Waste Division. This means that the implementation of the 90 gallon program should be planned in such a way that the number of expanded routes will match the annual attrition rate. The "Financial Data" section contains charts which show capital equipment costs compared to employee salary savings over the next ten years.

**ANALYSIS**

Various cities throughout the State of California utilize the 90 gallon container program including Beverly Hills, Fresno, and Torrance. Locally, the County of Sacramento has been implementing this service over the last two years. Those customers who have used an automated system overwhelmingly prefer it to manual collection for several reasons: there are usually lower user costs associated with automated containerization, neighborhoods typically have a neater appearance due to container uniformity and there are fewer containers placed in front of any one residence. Staff notes the following additional supportive arguments for an automated system:

- **The solid waste collection environment would be improved.** Since an automated system is a safer method of refuse collection, it will permit sanitation workers to work in the field until the normal retirement age. This is major reason why Local 39, the bargaining unit which represents the sanitation workers, is supportive of the implementation of an automated program.

- **Collection productivity is increased.** With the institution of a mandated City-wide automated program, it would be possible for each operator to collect between 500 and 550 containers per day instead of the current 200. The expansion of the number of containers collected means that the Division can operate with 29 routes instead of the present 40.

- **Truck fuel consumption would be reduced.** The proposed system would eliminate "idle time", where truck engines are left idling while employees work on the ground behind the equipment. Automated collection trucks would require only 10-12 seconds per stop as opposed to the 30-60 seconds needed for manual collection (This results from the fact that under the 90 gallon program, the truck would stop for a brief period at every house. Under the present system, the truck stops for a longer period of time at several strategic points along the street.).

These factors have to be weighted against some of the following disadvantages:

- **There are high capital costs associated with the implementation of the 90 gallon program.** These costs are discussed further in the "Financial Data" section, however, it is appropriate to note here that "savings", under staff's proposal, begin to outweight "costs" as early as the sixth year of the mandated program.

- **Some customers may experience problems storing the 90 gallon containers.** Some residences have narrow gates through which garbage cans must be moved; others have garbage can storage facilities builtin into a boundary fence which typically can not accomodate a 90 gallon container. A second generation of narrower containers has been purchased, which for the most part, has eliminated past problems associated with moving 90 gallon cans through existing gates.

- **Newspaper recycling is not practical with any automated system.** Since the operator has no need to leave the truck with the 90 gallon program, it is impractical to continue manual collection of newspapers

on 90 gallon routes. The savings from this program have totaled $7,300 annually, an amount which is outweighted by the costs associated with this manual service. In an effort to address this concern, the Solid Waste Division is exploring the possibility of contracting with a third party for the collection of recyclable newsprint. The importance of newspaper recycling varies, since only a limited amount of paper is collected when the price of newsprint is high (Private individuals typically collect the newspapers before City crews arrive.).

**FINANCIAL DATA**

Attachment "A" identifies all of the various costs and/or savings which could be expected from a mandated 90 gallon container program over the next ten years. The assumptions which were considered in developing this analysis are listed on the second page. In addition to these, a phasing schedule was developed which considered the constraints posed by the equipment replacement system (The Solid Waste Division normally would absorb the replacement of five rearpackers with sideloader automated trucks each year. Therefore the number of proposed annual conversion routes was limited to five routes. Six trucks would be purchased each year including one spare vehicle.). The most pertinant cost factors from this attachment have been summarized on the table below:

**TABLE 1**
**90 GALLON PROGRAM IMPACT**

| Year | <--- Program Costs ---> Containers | Equipment | Program Savings | Net Costs |
|---|---|---|---|---|
| 84-85 | $ 289,738 | $ 16,927 | ($ 68,776) | $ 237,889 |
| 85-86 | 1,063,985 | 59,439 | ( 164,408) | 959,016 |
| 86-87 | 1,223,863 | 63,654 | ( 338,411) | 949,106 |
| 87-88 | 1,383,843 | 68,141 | ( 532,897) | 919,087 |
| 88-89 | 1,552,319 | 72,915 | ( 749,697) | 875,538 |
| 89-90 | 1,729,659 | 77,991 | ( 987,419) | 820,231 |
| 90-91 | 839,638 | ( 4,402) | ( 1,152,654) | ( 317,417) |
| 91-92 | 864,827 | ( 5,327) | ( 1,576,949) | ( 717,448) |
| 92-93 | 890,772 | ( 6,445) | ( 1,810,785) | ( 926,458) |
| 93-94 | 917,495 | ( 7,799) | ( 1,916,199) | ( 1,006,503) |
| | $10,756,140 | $ 335,095 | ($ 9,298,196) | $1,793,040 |

NOTE: Positive numbers reflect costs; negative numbers reflect savings.

As is obvious from Table 1, a mandated 90 gallon program begins to pay for itself beginning in 1990-91 (the sixth year of a mandated program), once all of the major capital equipment purchases have been completed. After that point, the savings from the operation almost double for each year thereafter. Prior to 1990, the City would achieve on-going salary savings from the reduction of one sanitation worker position per 90 gallon route (due to the switch to one-man routes) along with decreases in workers' compensation and direct injury costs. After 1990, similar economies would be achieved from a reduction in the total number of routes. The anticipated salary savings were limited to the Division's projection of how the 90 gallon phase-in would occur; to the extent that the actual attrition rate rises during this period, real savings would be greater than what is shown on Attachment "A".

The type of equipment purchases which are required for this program could not be debt-financed since their useful lives vary from each other and, in some cases, may not exceed one year. Therefore the capital costs associated with this program would have to be paid for in cash as a part of each year's Approved Solid Waste Division Budget. The Solid Waste rate model in Attachment "B-1" provides an inital indication of the fund balance deficits that would be created as a result of including 90 gallon container expenses. If a mandated program was instituted as of July 1985, a 28% rate adjustment would be needed to cover all anticipated 1985-86 costs (This increase is 8% over the 20% adjustment already presented to the Budget and Finance Committee during the Midyear Review hearing). Rate increases would be significantly less in subsequent years as employee salary savings exceed program costs as shown in Attachment "B-2".

**RELATED POLICY ISSUES**

A. Garden Refuse Program

Primary to any discussion of 90 gallon program savings is the question of consolidating garden refuse service with 90 gallon collection. As was mentioned earlier, currently only 10% of all City residents must containerize their garden refuse due to the fact that they have no curbs and gutters. In all other parts of the City, the Solid Waste Division must go in with a second truck and a mechanical lift tractor and pick up vegetal materials. While the Council has the power to mandate the 90 gallon program for all residential refuse customers, Measure "A" currently prohibits **mandatory** garden refuse containerization. The critical points which need to be reviewed in connection with this issue are:

1. Are the factors which initiated the garden refuse program still sufficiently relevant for the City to continue providing this service?

2. If the answer to the question above is yes, how should this service be continued: through contract services, voluntary containerization, or a vote of the people to mandate garden refuse containerization?

Since June 1984, the City has been operating the Vegetal Waste Facility which is partially dependent upon residential garden refuse. Staff has determined that the minor decrease in the availability of vegetal materials that would occur if all residents began to containerize their garden refuse would not impact the Vegetal Waste program for at least three to four years. Under the State of California contract, the City is required to deliver 75 tons of biomass material each day from the Vegetal Waste Facility. With daily collection currently at 200 tons, there should still be sufficient vegetal material available, even if a voluntary containerization program is begun.

If all vegetal material was containerized, there might be some decrease in Garden Refuse program expenses. Garden Refuse direct costs total approximately $3.9 million annually; it would be reasonable to expect that 75% of these expenses would be eliminated if residential vegetal material containerization was mandatory. In addition, there are related workers' compensation and/or injury costs which would also be reduced or eliminated by any containerization effort the City was able to achieve.

There is already some impetus from residential customers to **voluntarily** containerize their garden refuse in cases where the 90 gallon program is in effect. The overall neater appearance created as a result of the institution of the 90 gallon program has spurred some residents to "encourage" their neighbors to eliminate garden refuse piles and to place all vegetal material in the 90 gallon can. It may be possible for the City to publicize voluntary efforts toward containerization and to monitor the impact that this is having on reducing the need for a separate Garden Refuse operation. Once a given percentage of voluntary effort is achieved citywide (for example, 65%), it may be realistic to consider holding an election to reconsider the Charter implications of Measure "A" with the expectation that satisfied 90 gallon customers would be willing to support mandated containerization of all residential vegetal materials. Should the voters approve the mandatory containerization of residential garden refuse, vegetal materials would no longer be separately collected in most areas of the City, with the possible exception of the fall leaf season.

B. 90 Gallon Container Program -Implementation Phase

During fiscal year 1984-85, one new 90 gallon container route was added to the Solid Waste Division, for a total of four 90 gallon routes. As a result of pent-up customer demand, all of the new containers were committed by November 1984. The Solid Waste Division feels that it would not be difficult to place 12,500 containers (or a total of five new routes) if a systemized allocation plan was adopted by the Council. They have proposed a heuristic routing process for implementing a mandated 90 gallon program, using the following criteria:

Priority 1 (Infill) - Within the existing 90 gallon program, there are a number of geographical areas where neighborhood participation is not 100%. For routing purposes, the most practical way to proceed would be to "fill-in" these locations during the first year of a mandatory 90 gallon program. The cans would be allocated to each of the geographical areas as follows:

| **Location** | **Number of Cans to be Distributed** |
|---|---|
| River Park | 703 |
| East Sacramento | 765 |
| Glenbrook | 581 |
| Freeport | 122 |
| Meadowview | 279 |
| Natomas | 146 |
| Natomas North | 88 |
| North Sacramento | 180 |
| Woodlake | 244 |
| Valley Hi | 933 |
| TOTAL | 4,041 |

Priority 2 (No Curbs/Gutters) - As was previously indicated, persons with no curbs and/or gutters in front of their homes already must containerize their vegetal material. Routes containing any of these streets would also receive containers during the first year of a mandatory 90 gallon program, in the following manner:

| **Route*/Day** | **Number of Cans to be Distributed** |
|---|---|
| 9 - Friday | 406 |
| 30 - Monday | 506 |
| 35 - Monday | 451 |
| 35 - Tuesday | 593 |
| 35 - Wednesday | 555 |
| 35 - Friday | 497 |
| 36 - Monday | 617 |
| 38 - Tuesday | 537 |
| 39 - Monday | 453 |
| 39 - Tuesday | 579 |
| 39 - Wednesday | 362 |
| 42 - Wednesday | 327 |
| 48 - Tuesday | 338 |
| 48 - Wednesday | 450 |
| TOTAL | 6,671 |

* These routes were selected because they contain some streets without curbs and gutters.

Priority 3 (All Others) - All other residential accounts would be converted on a route-by-route basis, where the number of persons with curbside accounts exceeded 65%. It is the Solid Waste Division's intention to begin this conversion on the City's perimeters, moving in toward the downtown. The downtown district (defined as the area bounded by E to R Streets and Front to 29th Streets), would be the last to convert to a 90 gallon program due to the difficulty of getting sideloader trucks to the curb. As the program progresses, staff will be exploring how this particular conversion can most easily be accomplished and presenting follow-up reports specifically geared to the needs of the downtown.

**CONCLUSION**

Even without containerization of garden refuse, the City of Sacramento would achieve significant costs savings by moving toward a mandatory 90 gallon container program for most of its residential routes, exclusive of the downtown area. The proposed program could include **voluntary** containerization of vegetal material in the 90 gallon container. This program would be implemented over a five year period and annually the City Council could approve the conversion for various residential areas using the following criteria:

Fiscal Year 1985-86

- Priority 1 - Current 90 gallon routes where participation is less than 100%. **All non-participants would be required to participate** in the 90 gallon program.

- Priority 2 - 65% Curbside routes where residents must currently containerize garden material because there are no curbs and gutters.

Future Fiscal Years

- Priority 3 - All other 65% Curbside routes. In this category, the program would begin in areas on the outside perimeter of the City and work in towards the older downtown areas.

**RECOMMENDATION**

Based upon the information provided, staff would recommend that the joint Budget and Finance and Transportation and Community Development Committees approve the following for City Council action:

1. Adoption of the attached resolution mandating a residential 90 gallon container program. In fiscal year 1985-86, the following criteria will be used:

a. Priority 1 - Current 90 gallon routes where participation is less than 100%.

b. Priority 2 - 65% Curbside routes where residents must currently containerize garden material because there are no curbs and gutters.

2. That staff be directed to incorporate the purchase of equipment and necessary routing changes for the institution of five new 90 gallon routes as a part of the Solid Waste Division's 1985-86 appropriation request.

3. That the appropriation of necessary funding for this program be reviewed within the context of the 1985-86 Proposed Budget.

4. That staff be directed to monitor the success of voluntary garden refuse containerization and to report back on the economic feasibility of holding an election to mandate residential vegetal waste containerization.

Respectfully submitted,

Monika Hudson

MONIKA HUDSON
Senior Management Analyst

CONCUR:

Melvin Johnson

MELVIN JOHNSON
Director of Public Works

RECOMMENDATION APPROVED:

Solon Wisham Jr.

SOLON WISHAM, JR.
Assistant City Manager

# RESOLUTION NO.

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF

**RESOLUTION ADOPTING A MANDATORY 90 GALLON CONTAINER PROGRAM FOR ALL RESIDENTIAL ROUTES**

**WHEREAS**, the use of 90 gallon uni-containers provides a feasible and economic method for collecting residential municipal solid waste; and

**WHEREAS**, the City's Solid Waste Division has determined that it would be possible to fully implement a 90 gallon container program within the City of Sacramento over the next five years; and

**WHEREAS**, the City Council has reviewed the policy implications of this change and wish to initiate a mandatory program in order to achieve maximum savings.

**NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SACRAMENTO:**

1. A mandatory 90 gallon container program for all residential customers is hereby established. In fiscal year 1985-86, the following criteria will be used to determine the placement of the first containers:

   a. Priority 1 - Current 90 gallon routes where participation is less than 100%.

   b. Priority 2 - 65% Curbside routes where residents must currently containerize garden material because there are no curbs and gutters.

2. Staff is hereby directed to incorporate the purchase of equipment and necessary routing changes for the institution of five new 90 gallon routes as a part of the Solid Waste Division's 1985-86 appropriation request.

3. The appropriation of necessary program funding shall be reviewed within the context of the 1985-86 Proposed Budget.

4. Staff is hereby directed to monitor the success of voluntary garden refuse containerization and to report back on the economic feasibility of holding an election to mandate residential vegetal waste containerization.

_____

MAYOR

ATTEST:

_____

CITY CLERK

# ATTACHMENT "A"

ANALYSIS OF 90 GALLON CONTAINER PROGRAM COSTS AND SAVINGS
90GAL
2/20/85

| Year | 1<br>84-85 | 2<br>85-86 | 3<br>86-87 | 4<br>87-88 | 5<br>88-89 | 6<br>89-90 | 7<br>90-91 | 8<br>91-92 | 9<br>92-93 | 10<br>93-94 | TOTAL<br>10 YEAR COST |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CURRENT PROGRAM | | | | | | | | | | | |
| Containers Currently in Service: Number | 7,500 | | | | | | | | | | |
| Total Residential Routes Which Potential | 29 | | | | | | | | | | |
| 90 Gallon Routes: Existing | 3 | 4 | 9 | 14 | 19 | 24 | 29 | 29 | 29 | 29 | |
| Proposed | 1 | 5 | 5 | 5 | 5 | 5 | 0 | 0 | 0 | 0 | |
| 90 Gal % at Yr's End | 13.79% | 31.03% | 48.28% | 65.52% | 82.76% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | |
| % Routes Remaining | 86.21% | 68.97% | 51.72% | 34.48% | 17.24% | .00% | .00% | .00% | .00% | .00% | |
| PROPOSED PROGRAM - CONTAINERS | | | | | | | | | | | |
| Container Costs | $65 | $65 | $67 | $69 | $71 | $73 | $75 | $78 | $80 | $82 | |
| New Containers Installed: Number | 2,500 | 12,500 | 12,500 | 12,500 | 12,500 | 12,500 | 0 | 0 | 0 | 0 | 65,000 |
| Cost | $162,500 | $812,500 | $836,875 | $861,981 | $887,841 | $914,476 | $0 | $0 | $0 | $0 | $4,476,173 |
| Vandalized Containers Replaced: Number | 100 | 224 | 348 | 472 | 595 | 719 | 718 | 718 | 718 | 718 | 5,329 |
| Cost | $6,500 | $14,560 | $23,283 | $23,981 | $24,700 | $25,441 | $26,205 | $26,991 | $27,801 | $28,635 | $228,096 |
| Routine Replacement Schedule: Number | 1,858 | 3,645 | 5,433 | 7,220 | 9,008 | 10,795 | 10,795 | 10,795 | 10,795 | 10,795 | 81,138 |
| Cost | $120,738 | $236,925 | $363,706 | $497,880 | $639,778 | $789,741 | $813,434 | $837,837 | $862,972 | $888,861 | $6,051,871 |
| PROPOSED PROGRAM - EQUIPMENT | | | | | | | | | | | |
| Capital Costs | | | | | | | | | | | |
| Number of Sideload Packers Purchased | 1 | 6 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 31 |
| Cost of Rearload Packers | $53,000 | $63,500 | $68,580 | $74,066 | $79,992 | $86,391 | $93,302 | $100,767 | $108,828 | $117,534 | $845,960 |
| Cost of Sideload Packers | $70,000 | $73,500 | $79,380 | $85,730 | $92,589 | $99,996 | $107,996 | $116,635 | $125,966 | $136,043 | $987,636 |
| Total Cost - Rearloader | $53,000 | $381,000 | $411,480 | $444,398 | $479,950 | $518,346 | $0 | $0 | $0 | $0 | $2,288,175 |
| Total Cost - Sideloader | $70,000 | $441,000 | $476,280 | $514,382 | $555,533 | $599,976 | $0 | $0 | $0 | $0 | $2,657,171 |
| Added Costs - Sideload vs Rearload | $17,000 | $60,000 | $64,800 | $69,984 | $75,583 | $81,629 | $0 | $0 | $0 | $0 | $368,996 |
| Operating Costs | | | | | | | | | | | |
| Minimum Miles Operated Per Month | 347 | 347 | 347 | 347 | 347 | 347 | 382 | 420 | 462 | 508 | 3,853 |
| Cost/mile - Rearloader | $3.18 | $3.50 | $3.85 | $4.23 | $4.66 | $5.12 | $5.63 | $6.20 | $6.82 | $7.50 | |
| Cost/mile - Sideloader | $2.97 | $3.27 | $3.59 | $3.95 | $4.35 | $4.78 | $5.26 | $5.79 | $6.37 | $7.00 | |
| Total Cost - Rearloader | $1,103 | $8,497 | $17,357 | $27,905 | $40,389 | $55,091 | $66,660 | $80,659 | $97,597 | $118,093 | $513,353 |
| Total Cost - Sideloader | $1,031 | $7,936 | $16,211 | $26,063 | $37,722 | $51,453 | $62,258 | $75,332 | $91,152 | $110,294 | $479,452 |
| Added Costs - Sideload vs Rearload | ( $73) | ( $561) | ( $1,146) | ( $1,843) | ( $2,667) | ( $3,638) | ( $4,402) | ( $5,327) | ( $6,445) | ( $7,799) | ( $33,901) |
| Containers | $289,738 | $1,063,985 | $1,223,863 | $1,383,843 | $1,552,319 | $1,729,659 | $839,638 | $864,827 | $890,772 | $917,495 | $10,756,140 |
| Equipment | $16,927 | $59,439 | $63,654 | $68,141 | $72,915 | $77,991 | ( $4,402) | ( $5,327) | ( $6,445) | ( $7,799) | $335,095 |
| TOTAL (90 Gal Added Costs) | $306,665 | $1,123,424 | $1,287,517 | $1,451,984 | $1,625,235 | $1,807,650 | $835,236 | $859,501 | $884,327 | $909,697 | $11,091,235 |

PERSONNEL SAVINGS

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SALARY | | | | | | | | | | |
| Annual Salary (San Wrker I @ "E" Step) | ( $28,785) | ( $30,512) | ( $32,343) | ( $34,283) | ( $36,340) | ( $38,521) | ( $40,832) | ( $43,282) | ( $45,879) | ( $48,632) |
| Number of New Attritioned Positions | 1 | 5 | 5 | 5 | 5 | 5 | 8 | 3 | 0 | 0 |
| Percent of Year Affective | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 | .5 |
| Actual Savings (Current year + Previous Year's Savings) | ( $16,393) | ( $106,792) | ( $274,914) | ( $462,826) | ( $672,297) | ( $905,239) | ( $1,061,634) | ( $1,471,585) | ( $1,697,520) | ( $1,799,371) |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WORKERS' COMPENSATION | | | | | | | | | | | |
| Lost Days Costs per Person | ( $1,007) | ( $1,067) | ( $1,131) | ( $1,199) | ( $1,271) | ( $1,348) | ( $1,428) | ( $1,514) | ( $1,605) | ( $1,701) | |
| Lost Days Savings (w/attrition) | ( $504) | ( $3,736) | ( $9,617) | ( $16,191) | ( $23,519) | ( $28,299) | ( $37,140) | ( $51,481) | ( $59,385) | ( $62,948) | ( $292,821) |
| Injury Claims Savings | ( $53,880) | ( $53,880) | ( $53,880) | ( $53,880) | ( $53,880) | ( $53,880) | ( $53,880) | ( $53,880) | ( $53,880) | ( $53,880) | ( $538,800) |
| Total Workers' Comp Savings | ( $54,384) | ( $57,616) | ( $63,497) | ( $70,071) | ( $77,399) | ( $82,179) | ( $91,020) | ( $105,361) | ( $113,265) | ( $116,828) | ( $831,621) |
| TOTAL (90 Gal Program Savings) | ( $68,776) | ( $164,408) | ( $338,411) | ( $532,897) | ( $749,697) | ( $987,419) | ( $1,152,654) | ( $1,576,949) | ( $1,810,785) | ( $1,916,199) | ( $9,298,196) |
| NET 90 GALLON PROGRAM COSTS | $237,889 | $959,016 | $949,106 | $919,087 | $875,538 | $820,231 | ( $317,417) | ( $717,448) | ( $926,458) | ( $1,006,503) | $1,793,040 |

Positive numbers represent added costs for the 90 gallon program;
Negative numbers represent 90 gallon container program savings.

ASSUMPTIONS

1. Container costs will begin to increase 3% annually beginning in 1986-87.
2. Vandalized containers would be replaced at an annual rate of 1%.
3. All new containers would be replaced over 7 years.
4. Equipment capital costs were increased 8% while operating costs were increased 10%; milage was held constant, until 1989-90 when it was increased 10% annually. All figures supplied by Fleet Management were based upon 1984-85 data.
5. 84-89 salary attrition figures are based on switch from 2 to 1 person routes; 90-92 figures reflect the reduction in the total number of Waste Removal routes from 40 to 29.
   Sanitation Worker salary/lost day costs were increased 6% annually; attrition losses would net to only 6 months savings annually for all positions.
6. Workers' Comp injury claims savings were held constant and were derived from the percentage of 1983-84 claims associated with "loading injuries" (42%) compared with projected 1984 costs; only loading injuries would be eliminated as a result of the 90 gallon program.
7. Newspaper recycling savings of $7,300 annually would be lost.

ATTACHMENT "B-1" STATUS QUO

WRHIS90 12/27/84 RCL REVISED: 2/20/85

| SOLID WASTE FINANCIAL HISTORY & PROJECTIONS | ACTUAL 1983-84 | BUDGET 1984-85 | PROJECTED 1985-86 | PROJECTED 1986-87 | PROJECTED 1987-88 | PROJECTED 1988-89 | PROJECTED 1989-90 |
|---|---|---|---|---|---|---|---|
| Average Increase in All Solid Waste Rates | | | .00% | .00% | .00% | .00% | .00% |
| Monthly Curbside Rate: 1 can | | $5.50 | $5.50 | $5.50 | $5.50 | $5.50 | $5.50 |
| Monthly Backyard Rate: 1 can | | $10.75 | $10.75 | $10.75 | $10.75 | $10.75 | $10.75 |
| Monthly 90 Gallon Rate | | $4.55 | $4.55 | $4.55 | $4.55 | $4.55 | $4.55 |
| Operating Revenues: | | | | | | | |
| User Fees and Charges (MEMO ITEM ONLY) | $11,358,000 | $11,825,000 | | | | | |
| -Backyard | | 4,264,116 | 3,295,309 | 2,502,128 | 1,743,233 | 1,017,176 | 452,542 |
| -Curbside | | 2,704,230 | 2,402,877 | 2,069,713 | 1,702,277 | 1,298,014 | 960,541 |
| -90 Gallon | | 371,450 | 1,125,605 | 1,750,991 | 2,376,270 | 3,001,704 | 3,502,088 |
| -All Other | | 4,485,204 | 4,530,056 | 4,575,357 | 4,621,110 | 4,667,321 | 4,713,994 |
| Lien Collections | 576,000 | 674,000 | 236,500 | 227,077 | 217,964 | 208,858 | 199,684 |
| Vegetal Waste | | | 52,000 | 52,000 | 52,000 | 52,000 | 52,000 |
| Sidewalk Maintenance | 34,000 | 64,000 | 90,000 | 96,000 | 102,000 | 109,000 | 116,000 |
| Other Agency | 28,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| Miscellaneous | 18,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Lawn & Garden Refuse Tax | 2,226,000 | 2,350,000 | 2,413,450 | 2,478,613 | 2,545,536 | 2,614,265 | 2,684,850 |
| Total Operating Revenues | 14,240,000 | 14,963,000 | 14,195,797 | 13,801,879 | 13,410,389 | 13,018,339 | 12,731,700 |
| Operating Expenses: | | | | | | | |
| Employee Services | 7,855,000 | 7,969,762 | 8,447,948 | 8,954,825 | 9,492,114 | 10,061,641 | 10,665,339 |
| Other Services and Supplies | 5,967,000 | 6,711,709 | 7,047,294 | 7,399,659 | 7,769,642 | 8,158,124 | 8,566,030 |
| 90 Gallon Container Increased Salary Costs | | | ( 164,408) | ( 338,411) | ( 532,897) | ( 749,697) | ( 987,419) |
| 90 Gallon Container Increased Operating Costs | | | 59,439 | 63,654 | 68,141 | 72,915 | 77,991 |
| Transfer Station/Sac County Increment | | | | | 1,390,000 | 1,473,400 | 1,561,804 |
| Depreciation | 14,000 | | 0 | 0 | 0 | 0 | 0 |
| Total Operating Expenses | 13,836,000 | 14,681,471 | 15,390,273 | 16,079,726 | 18,187,000 | 19,016,383 | 19,883,745 |
| NET OPERATING INCOME (LOSS) | 404,000 | 281,529 | ( 1,194,476) | ( 2,277,848) | ( 4,776,610) | ( 5,998,044) | ( 7,152,045) |
| Nonoperating Revenues (Expenses): | | | | | | | |
| Interest Income | 84,000 | 80,000 | 0 | 0 | 0 | 0 | 0 |
| Other Miscellaneous Income | 80,000 | | 0 | 0 | 0 | 0 | 0 |
| Interest Expense | ( 188,000) | ( 238,407) | ( 662,458) | ( 631,402) | ( 917,528) | ( 863,820) | ( 802,772) |
| Operating Transfers In (Out) | ( 13,000) | ( 24,059) | ( 25,503) | ( 27,033) | ( 28,655) | ( 30,374) | ( 32,196) |
| Net Nonoperating Revenue (Expense) | ( 37,000) | ( 182,466) | ( 687,961) | ( 658,435) | ( 946,183) | ( 894,194) | ( 834,969) |
| NET CHANGE TO RETAINED EARNINGS | 367,000 | 99,063 | ( 1,882,436) | ( 2,936,282) | ( 5,722,793) | ( 6,892,238) | ( 7,987,014) |
| Retained Earnings (Deficit) Beginning | 1,676,016 | 1,938,016 | 1,752,079 | ( 130,357) | ( 3,066,640) | ( 8,789,433) | ( 15,681,671) |
| Prior Period Adjustment | | | | | | | |
| Equity Transfers In (Out) | ( 105,000) | ( 285,000) | 0 | 0 | 0 | 0 | 0 |
| Retained Earnings (Deficit) Ending | $1,938,016 | $1,752,079 | ( $130,357) | ($3,066,640) | ($8,789,433) | ($15,681,671) | ($23,668,685) |
| Sources of Working Capital | | | | | | | |
| Net Income (Loss) | 367,000 | 99,063 | ( 1,882,436) | ( 2,936,282) | ( 5,722,793) | ( 6,892,238) | ( 7,987,014) |
| Depreciation | 14,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| Increase in Long-Term Liabilities | | | 0 | 0 | 0 | 0 | 0 |
| Decrease in Restricted Assets | | | 0 | 0 | 0 | 0 | 0 |
| Decrease in Amt Due from Other Agencies | | | | | | | |
| COP Proceeds | 2,279,000 | 4,090,441 | | 3,307,653 | | | |
| Transfer from Waste Removal | | | | | | | |
| Incr. in Amts Payable from Restr. Assets | | | 0 | 0 | 0 | 0 | 0 |
| Total Sources of Working Capital | 2,660,000 | 4,189,504 | ( 1,882,436) | 371,371 | ( 5,722,793) | ( 6,892,238) | ( 7,987,014) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Uses of Working Capital:** | | | | | | | |
| Acquisition of Property/Plant/Equipment | 532,000 | 3,753,711 | 228,000 | 3,307,653 | | | |
| 90 Gallon Container Capital Costs | | | 1,063,985 | 1,223,863 | 1,383,843 | 1,552,319 | 1,729,659 |
| Decrease in Long-Term Liabilities | 23,000 | 256,500 | 281,200 | 618,600 | 701,932 | 758,796 | 737,395 |
| Transfers to Other Funds | 105,000 | 285,000 | 0 | 0 | 0 | 0 | 0 |
| Prior Period Adj. (vaca/sick lv accrual) | 564,000 | | | | | | |
| Increase in Restricted Assets | | | | | | | |
| Decr. in Amts Payable from Restr. Assets | | | | | | | |
| Payment to Risk Management | 1,293,000 | | | | | | |
| **Total Uses of Working Capital** | 2,517,000 | 4,295,211 | 1,573,185 | 5,150,116 | 2,085,775 | 2,311,115 | 2,467,054 |
| **Working Capital Balance - Beginning** | 576,918 | 673,725 | 568,018 | ( 2,887,603) | ( 7,666,349) | ( 15,474,917) | ( 24,678,270) |
| Net Change to Working Capital | 143,000 | ( 105,707) | ( 3,455,621) | ( 4,778,745) | ( 7,808,568) | ( 9,203,353) | ( 10,454,068) |
| Current Operating Encumbrances | ( 115,670) | | | | | | |
| Prior Year Operating Encumberances | 39,537 | | | | | | |
| Current Year CIP Carryover | ( 23,864) | | | | | | |
| Prior Year CIP Carryover | 53,804 | | 0 | 0 | 0 | 0 | 0 |
| WORKING CAPITAL BALANCE - ENDING | 673,725 | 568,018 | ( 2,887,603) | ( 7,666,349) | (15,474,917) | ( 24,678,270) | ( 35,132,338) |

ASSUMPTIONS

1. Rate increases are required to maintain appropriate fund balances for each year after 1984-85.
2. 20% rate increase was presented to the Council during August 1984 in connection with the expansion of the interim site.
3. Additional funds will be needed during 1984-85 and 1985-86 to begin covering parts of the existing site and to respond local residents' concerns about the amount of fill which can be placed in the interim site.
4. Major costs associated with the initiation of a transfer station/hauling to Sac Co. assumed; debt service on transfer station COP of $3.307 million ($364397 annually); less landfill operations ($197000) and landfill equipment ($158000); plus tipping fee ($757,120). All costs increased by 6% annually except for debt service.
5. Includes 90 Gallon Container Operating and Capital costs.

ATTACHMENT "B-2" INCLUDES RATE INCREASE

WRHIS90a 12/27/84 RCL REVISED:2/20/85

| SOLID WASTE FINANCIAL HISTORY & PROJECTIONS | ACTUAL 1983-84 | BUDGET 1984-85 | PROJECTED 1985-86 | PROJECTED 1986-87 | PROJECTED 1987-88 | PROJECTED 1988-89 | PROJECTED 1989-90 |
|---|---|---|---|---|---|---|---|
| Average Increase in All Solid Waste Rates | | | 28.00% | 16.00% | 14.00% | 12.00% | 10.00% |
| Monthly Curbside Rate: 1 can | | $5.50 | $7.04 | $8.17 | $9.31 | $10.43 | $11.47 |
| Monthly Backyard Rate: 1 can | | $10.75 | $13.76 | $15.96 | $18.20 | $20.38 | $22.42 |
| Monthly 90 Gallon Rate | | $4.55 | $5.82 | $6.76 | $7.70 | $8.63 | $9.49 |
| Operating Revenues: | | | | | | | |
| User Fees and Charges (MEMO ITEM ONLY) | $11,358,000 | $11,825,000 | | | | | |
| -Backyard | | 4,264,116 | 4,217,995 | 3,715,160 | 2,950,721 | 1,928,355 | 943,718 |
| -Curbside | | 2,704,230 | 3,075,683 | 3,073,110 | 2,881,397 | 2,460,766 | 2,003,086 |
| -90 Gallon | | 371,450 | 1,440,774 | 2,599,871 | 4,022,246 | 5,690,609 | 7,303,156 |
| -All Other | | 4,485,204 | 5,798,472 | 6,793,489 | 7,822,024 | 8,848,273 | 9,830,432 |
| Lien Collections | 576,000 | 674,000 | 236,500 | 290,658 | 323,633 | 353,528 | 378,560 |
| Vegetal Waste | | | 52,000 | 52,000 | 52,000 | 52,000 | 52,000 |
| Sidewalk Maintenance | 34,000 | 64,000 | 90,000 | 96,000 | 102,000 | 109,000 | 116,000 |
| Other Agency | 28,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 | 30,000 |
| Miscellaneous | 18,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Lawn & Garden Refuse Tax | 2,226,000 | 2,350,000 | 2,413,450 | 2,478,613 | 2,545,536 | 2,614,265 | 2,684,850 |
| Total Operating Revenues | 14,240,000 | 14,963,000 | 17,374,874 | 19,148,902 | 20,749,555 | 22,106,796 | 23,361,802 |
| Operating Expenses: | | | | | | | |
| Employee Services | 7,855,000 | 7,969,762 | 8,447,948 | 8,954,825 | 9,492,114 | 10,061,641 | 10,665,339 |
| Other Services and Supplies | 5,967,000 | 6,711,709 | 7,047,294 | 7,399,659 | 7,769,642 | 8,158,124 | 8,566,030 |
| 90 Gallon Container Increased Salary Costs | | | ( 164,408) | ( 338,411) | ( 532,897) | ( 749,697) | ( 987,419) |
| 90 Gallon Container Increased Operating Costs | | | 59,439 | 63,654 | 68,141 | 72,915 | 77,991 |
| Transfer Station/Sac County Increment | | | | | 1,390,000 | 1,473,400 | 1,561,804 |
| Depreciation | 14,000 | | 0 | 0 | 0 | 0 | 0 |
| Total Operating Expenses | 13,836,000 | 14,681,471 | 15,390,273 | 16,079,726 | 18,187,000 | 19,016,383 | 19,883,745 |
| NET OPERATING INCOME (LOSS) | 404,000 | 281,529 | 1,984,601 | 3,069,176 | 2,562,556 | 3,090,413 | 3,478,057 |
| Nonoperating Revenues (Expenses): | | | | | | | |
| Interest Income | 84,000 | 80,000 | 0 | 0 | 0 | 0 | 0 |
| Other Miscellaneous Income | 80,000 | | 0 | 0 | 0 | 0 | 0 |
| Interest Expense | ( 188,000) | ( 238,407) | ( 662,458) | ( 631,402) | ( 917,528) | ( 863,820) | ( 802,772) |
| Operating Transfers In (Out) | ( 13,000) | ( 24,059) | ( 25,503) | ( 27,033) | ( 28,655) | ( 30,374) | ( 32,196) |
| Net Nonoperating Revenue (Expense) | ( 37,000) | ( 182,466) | ( 687,961) | ( 658,435) | ( 946,183) | ( 894,194) | ( 834,969) |
| NET CHANGE TO RETAINED EARNINGS | 367,000 | 99,063 | 1,296,641 | 2,410,741 | 1,616,373 | 2,196,219 | 2,643,088 |
| Retained Earnings (Deficit) Beginning | 1,676,016 | 1,938,016 | 1,752,079 | 3,048,720 | 5,459,461 | 7,075,834 | 9,272,053 |
| Prior Period Adjustment | | | | | | | |
| Equity Transfers In (Out) | ( 105,000) | ( 285,000) | 0 | 0 | 0 | 0 | 0 |
| Retained Earnings (Deficit) Ending | $1,938,016 | $1,752,079 | $3,048,720 | $5,459,461 | $7,075,834 | $9,272,053 | $11,915,141 |
| Sources of Working Capital | | | | | | | |
| Net Income (Loss) | 367,000 | 99,063 | 1,296,641 | 2,410,741 | 1,616,373 | 2,196,219 | 2,643,088 |
| Depreciation | 14,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| Increase in Long-Term Liabilities | | | 0 | 0 | 0 | 0 | 0 |
| Decrease in Restricted Assets | | | 0 | 0 | 0 | 0 | 0 |
| Decrease in Amt Due from Other Agencies | | | | | | | |
| COP Proceeds | 2,279,000 | 4,090,441 | | 3,307,653 | | | |
| Transfer from Waste Removal | | | | | | | |
| Incr. in Amts Payable from Restr. Assets | | | 0 | 0 | 0 | 0 | 0 |
| Total Sources of Working Capital | 2,660,000 | 4,189,504 | 1,296,641 | 5,718,394 | 1,616,373 | 2,196,219 | 2,643,088 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Uses of Working Capital: | | | | | | | |
| Acquisition of Property/Plant/Equipment | 532,000 | 3,753,711 | 228,000 | 3,307,653 | | | |
| 90 Gallon Container Capital Costs | | | 1,063,985 | 1,223,863 | 1,383,843 | 1,552,319 | 1,729,659 |
| Decrease in Long-Term Liabilities | 23,000 | 256,500 | 281,200 | 618,600 | 701,932 | 758,796 | 737,395 |
| Transfers to Other Funds | 105,000 | 285,000 | 0 | 0 | 0 | 0 | 0 |
| Prior Period Adj. (vaca/sick lv accrual) | 564,000 | | | | | | |
| Increase in Restricted Assets | | | | | | | |
| Decr. in Amts Payable from Restr. Assets | | | | | | | |
| Payment to Risk Management | 1,293,000 | | | | | | |
| Total Uses of Working Capital | 2,517,000 | 4,295,211 | 1,573,185 | 5,150,116 | 2,085,775 | 2,311,115 | 2,467,054 |
| Working Capital Balance - Beginning | 576,918 | 673,725 | 568,018 | 291,474 | 859,752 | 390,350 | 275,454 |
| Net Change to Working Capital | 143,000 | ( 105,707) | ( 276,544) | 568,278 | ( 469,402) | ( 114,896) | 176,034 |
| Current Operating Encumbrances | ( 115,670) | | | | | | |
| Prior Year Operating Encumberances | 39,537 | | | | | | |
| Current Year CIP Carryover | ( 23,864) | | | | | | |
| Prior Year CIP Carryover | 53,804 | | 0 | 0 | 0 | 0 | 0 |
| WORKING CAPITAL BALANCE - ENDING | 673,725 | 568,018 | 291,474 | 859,752 | 390,350 | 275,454 | 451,488 |

ASSUMPTIONS

1. Rate increases are required to maintain appropriate fund balances for each year after 1984-85.
2. 20% rate increase was presented to the Council during August 1984 in connection with the expansion of the interim site. 90 Gallon program would add 8% to the rates necessary to meet these requirements.
3. Additional funds will be needed during 1984-85 and 1985-86 to begin covering parts of the existing site and to respond local residents' concerns about the amount of fill which can be placed in the interim site.
4. Major costs associated with the initiation of a transfer station/hauling to Sac Co. assumed: debt service on transfer station COP of $3.307 million ($364397 annually); less landfill operations ($197000) and landfill equipment ($158000); plus tipping fee ($757,120). All costs increased by 6% annually except for debt service.
5. Includes 90 Gallon Container Operating and Capital costs.