



# CITY OF SACRAMENTO

3

DEPARTMENT OF PUBLIC WORKS  
915 I STREET SACRAMENTO, CALIFORNIA 95814  
CITY HALL ROOM 207 TELEPHONE (916) 449-5281

M. H. JOHNSON  
Director

February 13, 1985

Transportation and Community  
Development Committee

Honorable Members in Session:

SUBJECT: City Landfills Daily Waste Disposal Tonnage

SUMMARY:

This report provides the Transportation and Community Development Committee with an analyses of the average tons of waste placed in the City landfill each day. The report informs the committee that the rate of waste discharged has no adverse impacts on the environment as total landfill capacity, when filled, dictates water quality protection discharge monitoring requirements.

BACKGROUND:

On January 30, 1985 the Transportation and Community Development Committee was informed that the City's landfill was exceeding the daily tonnage delineated in its landfill expansion Environmental Impact Report (EIR) and its Solid Waste Facility Permit. It was implied that the daily tonnage excess could require the preparation of another EIR and/or require the need for submitting another application for a Solid Waste Facility Permit.

In the last five years the average daily tons of waste was as follows:

	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>
Daily Tonnage	577.0	581.2	613.9	669.7	661.7

(See attached Exhibit A for monthly daily average)

Thus, for three years the average daily waste placed in the landfill has exceeded 600 tons per day (tpd). In 1984 the average daily tonnage consisted of approximately 416 tpd of household garbage, 227 tpd of garden refuse and 19 tpd of park-crew collected waste. (See attached Exhibit B for 1984 tpd by waste type).

The quantities of solid waste specified in the landfill expansion EIR, which was initiated in November of 1982, was 600 tpd starting in 1983.

The EIR estimate of our waste quantities was projected from our 1981 actual of 581 tpd. It was anticipated to increase by the same 1% that had occurred in the previous year. Additionally, the State of California and the City had signed an agreement whereby 50-77 tpd of garden refuse would not be buried in the landfill but rather would be converted into a bio-mass fuel to heat and cool same state buildings. (See attached Exhibit C for EIR waste quantities).

The EIR analysis and description of waste characteristics and quantities is utilized to determine the type of landfill, i.e., Class I (toxic) or Class II (standard) that will be permitted, and associated landfill discharge and monitoring requirements.

The thesis that exceeding 600 tpd poses an added threat to the environment is based on the erroneous premise that environmental impacts are based on the rate of placing waste in the landfill, rather environmental impacts are based on the total capacity of the landfill. Thus, our Central Valley Region Waste Discharge Requirements address only the landfill's total capacity and not the rate of discharge. (See attached Exhibit D).

The City's Solid Facility Permit granted by the California Waste Management Board (CWMB) does address daily allowable tonnage as this permit dictates the daily operation of our landfill. The permit, as granted, does state "The facility is allowed to receive 600+ tons per day based on 5½ days of operation per week."

Current CWMB guidelines state that "Any significant change in design or operation would require revision of the permit..... In order to avoid the need to revise a permit for each minor change in operation, the conditions should be drafted to accommodate fluctuations without requiring permit revision, so long as such changes do not necessitate additional measures to control their environmental effects." One of the Principal Indicators of Possible Significant Change is "A 20% increase in tonnage received at a landfill." (See attached Exhibit E, CWMB Enforcement Guidelines).

A 20% increase in the City's current 600+ tpd is 720 tpd. The City has not exceeded a daily average of 720 tpd. We will not approach a 700 tpd figure when we can sell 50-77 tpd to the State Department of General Services.


FINANCIAL:

This report has no financial implications.

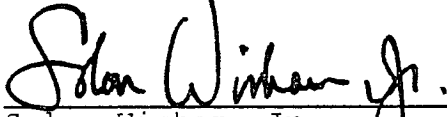
RECOMMENDATION:

It is recommended that this report be received by the Committee for information and filed.

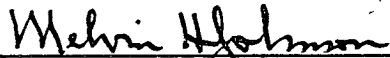
Respectfully submitted,

  
Reginald Young  
Deputy Director of Public  
Works, Public Services

FOR COMMITTEE INFORMATION:

  
Solon Wisham, Jr.  
Assistant City Manager

APPROVED:

  
Melvin H. Johnson  
Director of Public Works

MHJ/RY/hma

Exhibits: A - Average Daily Tonnage  
B - Average Daily Tonnage by Waste Type  
C - EIR Waste Quantities  
D - Landfill Capacity by Discharge Requirement  
E - CWMB Guidelines

1980

EXHIBIT A

<u>Month</u>	<u>Total Tons For Month</u>	<u>Working Days in Month</u>	<u>Average Tons Per Day to L/F</u>
January	14,112.5	25	564.5
February	13,603.5	23	591.5
March	14,128.3	23.5	601.2
April	15,155.6	24	631.5
May	15,464.3	24.5	631.2
June	13,205.6	23	574.2
July	13,661.4	25	546.5
August	12,956.9	23.5	551.4
September	14,141.1	24	589.2
October	13,686.7	27	506.9
November	14,716.5	25	588.7
December	<u>15,243.5</u>	<u>27</u>	<u>564.6</u>
TOTAL	169,913.3	294.5	577.0

1981

<u>Month</u>	<u>Total Tons For Month</u>	<u>Working Days in Month</u>	<u>Average Tons Per Day to L/F</u>
January	14,177.3	24.5	578.7
February	13,677.6	22	621.7
March	14,710.3	24	612.9
April	15,212.0	24	658.8
May	14,615.6	23.5	621.9
June	14,346.1	24	597.8
July	13,802.0	25	552.1
August	12,672.2	23.5	539.2
September	13,141.5	24	547.6
October	14,235.1	27	527.2
November	14,503.3	25	580.1
December	<u>14,883.9</u>	<u>27</u>	<u>551.3</u>
TOTAL	170,576.9	293.5	581.2

1982

<u>Month</u>	<u>Total Tons For Month</u>	<u>Working Days in Month</u>	<u>Average Tons Per Day to L/F</u>
January	13,164.2	23.5	560.2
February	12,567.9	22	571.3
March	16,521.7	25	660.9
April	16,140.1	24	672.5
May	14,207.0	23.5	604.6
June	14,005.6	24	583.6
July	14,135.6	24.5	577.0
August	14,649.5	24	610.4
September	15,628.3	24	651.2
October	15,873.2	26	610.5
November	16,773.4	26	645.1
December	<u>16,511.7</u>	<u>27</u>	<u>611.5</u>
TOTAL	180,178.2	293.5	613.9

1983

<u>Month</u>	<u>Total Tons For Month</u>	<u>Working Days in Month</u>	<u>Average Tons Per Day to L/F</u>
January	14,495.0	23.5	616.8
February	14,535.8	22	660.7
March	17,205.7	25	688.2
April	16,458.9	23.5	700.4
May	17,560.3	24	731.7
June	16,485.6	24	686.9
July	14,594.2	23.5	621.0
August	16,241.1	25	649.6
September	15,349.2	24	639.6
October	14,655.9	26	563.7
November	18,302.8	26	704.0
December	<u>20,668.4</u>	<u>27</u>	<u>765.5</u>
TOTAL	196,552.9	293.5	669.7

1984

<u>Month</u>	<u>Total Tons For Month</u>	<u>Working Days in Month</u>	<u>Average Tons Per Day to L/F</u>
January	16,722.2	24	696.8
February	14,779.8	23	642.6
March	16,421.7	24.5	670.3
April	16,078.3	23	699.1
May	16,302.5	25	652.1
June	14,814.2	23.5	630.4
July	15,062.1	24	627.6
August	14,018.8	25	560.8
September	14,117.7	22.5	627.5
October	18,006.2	27	666.9
November	21,673.7	26	833.6
December	<u>16,218.9</u>	<u>26</u>	<u>623.8</u>
TOTAL	194,216.1	293.5	661.7



1984

## AVERAGE DAILY TONNAGE

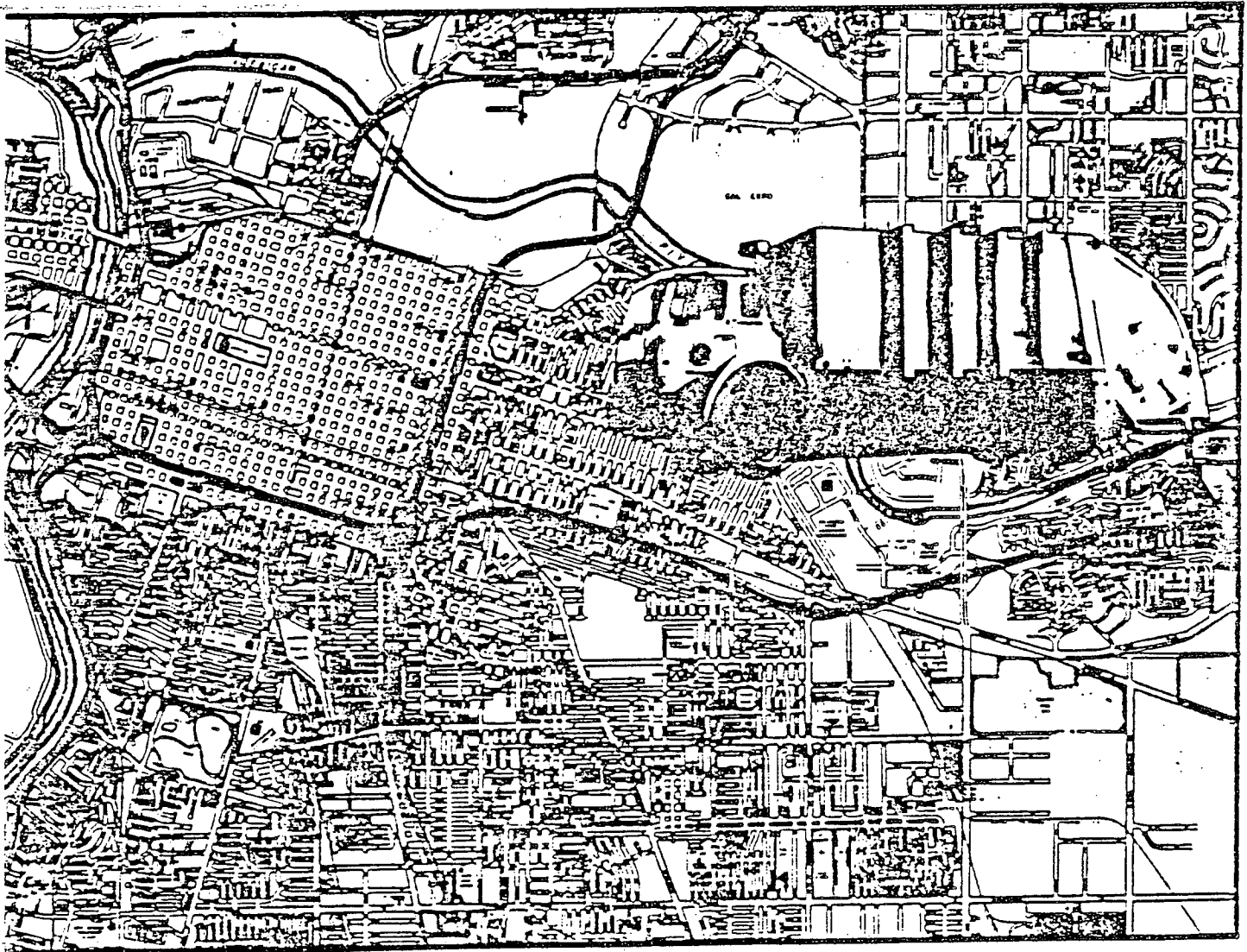
## WASTE BY TYPE

<u>Month</u>	<u>Garbage</u>	<u>Garden Refuse</u>	<u>Parks Waste</u>	<u>Sub Total</u>
January	444.4	227.9	24.4	696.8
February	408.6	210.1	23.9	642.6
March	400.0	236.5	33.8	670.3
April	413.8	265.1	20.2	699.1
May	419.1	214.8	18.2	652.1
June	421.2	197.1	12.1	630.4
July	416.2	201.8	9.7	627.6
August	414.7	130.7	15.4	560.8
September	412.5	198.3	16.7	627.5
October	405.3	244.7	16.9	666.9
November	425.1	389.1	19.4	833.6
December	399.4	201.6	22.8	623.8
YEARLY AVERAGE	<u>415.7</u>	<u>226.5</u>	<u>19.5</u>	<u>661.7</u>

# CITY OF SACRAMENTO

EXHIBIT C

## SITE TECHNICAL REPORT AND SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT REPORT, LANDFILL EXPANSION



July 1983



BROWN AND CALDWELL

Once on the City landfill site, collection vehicles and other traffic will gain access to the proposed expansion site via extensions of existing on-site roads.

#### Description of Solid Waste Material

The waste material to be received at the site fits the general definition of Group 2 wastes as set forth in Section 2521 of Subchapter 15 of the California Administrative Code. Excerpts from the CAC are provided in Appendix B of this report. The material is primarily household and commercial garbage and rubbish. Certain kinds of construction demolition materials suitable for use in the construction of all-weather, on-site roadways are to be received at the site as well as small dead animals, street sweepings, water treatment residues, screenings from sewage and stormwater pumping stations, authorized hospital and laboratory wastes, and other materials meeting the State of California's definition (Section 2522) of Group 3 wastes. No Group 1 (hazardous) wastes are to be received at the site. In addition, the following Group 2 wastes are not intended to be disposed at the site.

1. Wastewater grit, dewatered sludge, and septic tank pumpings.
2. Abandoned vehicles.
3. Bulky, noncompactable construction demolition debris.

#### Solid Waste Quantities

On the average, 600 tons per day of waste material is received at the City landfill on a 5-1/2-day per week operation schedule (i.e., 3,300 tons per operation week). The City's Waste Removal Division estimates that this quantity will increase at a rate of about 1 percent per year over the next ten years. Accordingly, the existing and projected waste quantities in the ten-year period 1983 to 1993 are as shown in Table 1-2.

Table 1-2. Existing and Projected Solid Waste Quantities<sup>a</sup>

Year	Tons/operation day	Tons/operation week <sup>b</sup>	Tons/year
1983	600	3,300	171,600
1984	606	3,333	173,320
1985	612	3,366	175,030
1986	618	3,399	176,750
1987	624	3,432	178,460
1988	630	3,465	180,180
1989	636	3,498	181,900
1990	642	3,531	183,610
1991	648	3,564	185,330
1992	654	3,597	187,040
1993	660	3,630	188,760
1883-1993 Averages	630	3,465	180,180

<sup>a</sup>City Waste Removal Division projects a 1 percent per year increase from existing 1983 waste quantity.

<sup>b</sup>5-1/2-day operation week.

#### Project Features to Meet Site Development and Operation Constraints

The environmental sensitivity of the areas adjoining the proposed landfill expansion site is discussed in Chapter 2 (Environmental Setting and Impacts). The site groundwater conditions are described in Chapter 3 (Geohydrologic Evaluation). Protection of adjacent areas and groundwater quality imposes important constraints on development and operation of the proposed expansion site. Project features necessary to meet these constraints are summarized here with details presented in Chapters 3 and 4.

Project Features for General Environmental Protection. Certain facilities are essential for visual and noise buffering of the site and for positive control of litter. These facilities are in addition to the need for close adherence to good sanitary landfill operational practices and procedures as mandated by State regulations and described in Chapter 4 of this report. The needed facilities are:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

EXHIBIT D

ORDER NO.84-094

WASTE DISCHARGE REQUIREMENTS  
FOR  
CITY OF SACRAMENTO  
28TH STREET CLASS II-2 LANDFILL FACILITY  
SACRAMENTO COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. The City of Sacramento (hereafter Discharger) submitted a Report of Waste Discharge, dated 18 January 1984, and a site evaluation report, dated July 1983, for continued use and expansion of the 28th Street Landfill.
2. On 27 June 1975, the Board adopted Order No. 75-155 specifying waste discharge requirements for this facility.
3. The Discharger plans to discharge Group 2 and 3 wastes in the existing 78-acre landfill, and in the proposed 35-acre landfill (Attachment "A"). Use of the proposed landfill will commence when existing landfill capacity is reached, and will be a continuation of present operations. The proposed landfill will allow operations to continue at the site for about three additional years, after which closure will occur.
4. This facility complies with the criteria contained in the California Administrative Code, Title 23, Subchapter 15, for classification as a Class II-2 Landfill Facility suitable to receive Group 2 and 3 waste.
5. The State Water Resources Control Board adopted revisions to the California Administrative Code, Title 23, Chapter 3, Subchapter 15 on 1 May 1984. The revisions may go into effect if approved by the Office of Administrative Law. These requirements are in technical conformance with the revisions.
6. The total capacity of the facility is about 4.875 million cubic yards (3.73 million m<sup>3</sup>).
7. Maximum ground water elevation recorded at the facility is +25.7 feet U.S.G.S. Datum, and waste discharge will extend to a minimum elevation of +15 feet U.S.G.S. Datum. Operating procedures and the clay liner of the proposed landfill should provide adequate protection against ground water quality impairment.
8. The Discharger plans to use a ground water dewatering system during operation of the proposed landfill, to protect the clay liner from uplift prior to waste placement. The Discharger has shown that the net downward force on the liner after fill is complete will be more than adequate to protect the liner from uplift, so dewatering will be ceased in each portion when fill capacity is reached. The ground water extracted during dewatering will be discharged to the American River after monitoring.

## CALIFORNIA WASTE MANAGEMENT BOARD

1020 NIPAH STREET, SUITE 300  
SACRAMENTO, CALIFORNIA 95814  
(916) 322-6172

EXHIBIT E

FEB 9 1983

To All California Waste Management  
Board Enforcement Agencies

It is not often that we communicate with you by form letter concerning enforcement activities. However, many legislative changes were made in the law this past year and you have also posed numerous questions concerning your ongoing responsibilities. Therefore, we felt that a review of the new legislative changes and a specific response to your questions was needed.

What follows is a brief listing of your most frequently asked questions and our answers. Also included is a brief summary of key legislation.

### 1. COMPOSTING

The question "Should we permit composting and resource recovery facilities?" is asked frequently. A composting operation is a solid waste facility under the heading of transfer/processing station. Permits are required, not to arbitrarily increase the workload, but because experience has shown that composting projects when uncontrolled can be the source of severe vector, odor, fires, and leachate problems and at times a place for uncontrolled dumping.

Our regulations require that operators of composting projects obtain a solid waste facilities permit. Information is attached to assist you in this task. You will find instructions to the operator for preparation of a Report of Composting Site Information for composting operations and a permit worksheet for your own use.

Currently there is no legal mechanism in solid waste law that exempts small composting operations from the permitting process. This does not imply that we expect you to permit back yard operations. As stated in Section 66723 of the Government Code, operations involving manure are exempted from the definition of a transfer/processing station and no permit is required.

### 2. RESOURCE RECOVERY FACILITIES

Resource recovery facilities also fall within the definition of a transfer/processing station and require a permit for operation when municipal or other putrescible wastes are being processed. To determine if a facility requires a permit, the following question may be asked. If the answer is yes, the facility requires a permit. If the answer is no, a solid waste permit is not required.

Does or will the resource recovery facility receive waste material which may endanger the public health or safety or create a nuisance or deteriorate the environment if the waste material is not stored, separated, converted or

processed in accordance with state minimum standards?

### 3. SIGNIFICANT CHANGE (PERMITTING)

What is a significant change at a solid waste facility? This is the most frequently asked question. A significant change at a solid waste facility may trigger many actions, particularly with the recent passage of legislation concerning solid waste planning, which includes general plan, county solid waste plan, and permit amendments.

The comment to 14 CAC Section 18208 states that "Any significant change in design or operation would require revision of the permit.

....In order to avoid the need to revise a permit for each minor change in operation, the conditions should be drafted to accommodate fluctuations without requiring a permit revision, so long as such changes do not necessitate additional measures to control their environmental effects." A portion of 14 CAC Section 18211(c) states, "... (c) A change shall be deemed significant for purposes of this section if and only if it does not conform to terms or conditions of the permit." The comment to this section says in part, "An operator filing a notice of operation (for permit revision) will, in the notice, indicate both the nature of the facility's design and operation and the extent to which he believes the design and operation can be changed without having a significant effect on the environment."

"Significant Change" for purposes of permit revision/modification means - change in design or operation which can produce environmental damage and/or create health and safety hazards.

A change that would decrease the risk would not require a permit modification. Examples of decreased risk changes would be the installation of gas or leachate collection systems, drainage facilities, sound/sight barriers, or providing extra cover. Any of these changes may, however, require technical approval by the enforcement agency.

Indicators of Significant Change - As an aid in determining the existence of a "significant change" we have assembled a list of indicators. The presence of one or a combination of the indicators listed below isn't evidence that "significant change" has or will take place, but one of these indicators or a combination thereof invites further testing to determine if they will create harm to the environment.

#### Principal Indicators of Possible Significant Change

- A facility closure
- A 20% increase in through-put for any existing transfer station
- A change in operating hours or days
- A change in closure date of a landfill
- Any change in the types of waste received

- A change in the excavation depth or an increase in height of the landfill
- A 20% increase in tonnage received at the landfill
- An increase in total permitted area or areas permitted for disposal
- An increase in the service area

The use of these indicators will still require the use of your judgement and knowledge of local conditions. As you note that one or more of the listed indicators is going to occur or has occurred at a solid waste facility, you will analyze the situation to determine if it will or has created an adverse environmental impact. If an adverse impact is likely or present, then a permit revision will be required.

4. CALIFORNIA DEPARTMENT OF FORESTRY PERMITS

With the passage of AB 3752(1982), the California Department of Forestry will no longer issue permits for rubbish dumps or other waste disposal sites that are located in unincorporated areas of counties. Instead, future solid waste facility permits will be conditioned with fire safety standards.

The Board is entering into a memorandum of understanding with the Department of Forestry to assure a smooth transfer of authority. We will be proposing regulations during the coming year to implement this new area of responsibility. A copy of AB 3752 is enclosed for your information. You will receive further information on this subject as the transition takes place.

5. METHANE GAS CONTROL

The prevention of health and safety hazards associated with methane gas migration from disposal sites is an important and complex issue. Because of changing regulations, it is important to communicate the Board's enforcement policies on this issue. Both existing and proposed new regulations require gas migration control and monitoring for safety and odor control, not only at active sites but also closed facilities. Pursuant to the newly enacted Senate Bill 1346 (Presley), you will be responsible for drafting and enforcing compliance schedules for noncomplying facilities. The Board staff will be available to review these compliance schedules with you.

All self-monitoring programs should receive your review and approval prior to installation. You must assure yourself that the monitoring plan is capable, if properly executed, of detecting migration before it becomes a safety hazard. You should be able to say, "monitoring according to this plan convinces me that gas migration is not occurring."



Gas control plans should also receive your review. But review of a gas control plan is done for a different purpose, that of determining whether changes in the monitoring plan are necessary. We do not recommend that you place yourselves in the position of approving gas control plans in the sense of saying, "this system will work." Instead, enforcement agencies should say, "this plan appears to be a reasonable effort, and the approved monitoring program will convince me as to whether it is effective."

We will assist you in review of these systems upon request. Applications for new and expanded disposal sites must be accompanied by a Disposal Site Report of Information. One portion of the report must comprehensively address methane gas monitoring and control. In some instances the methane gas section will be included as a permit provision in the Solid Waste Facilities Permit.

#### 6. FIVE YEAR REVIEW OF PERMITS

You have already received our request to set priorities for the review of the solid waste facility permits in your jurisdiction which require a five-year review. The requirement for a five-year review of permits is found in Government Code Section 66796.33(d) and in the associated 14 CAC Sections ~~18212~~ and 18213. Note that in Section 18213(d), that a solid waste facilities permit does not expire at the end of five years absent an express permit term or condition limiting the period of the permit. You will be hearing much more about this activity as it progresses.

During the permit review process language clean-up not related to a significant change of a facility will be processed without requiring county or general plan amendments or conformance findings.

During the grandfathering permitting process in 1977-78, solid waste facilities which were not meeting or could not meet the state minimum standards were permitted under a special Government Code Section allowing them to operate as long as they could meet the included schedule to attain compliance. This special section is no longer a part of the Government Code.

The five-year review procedure does not require the operator to file a new permit application. A new permit application fee may not be charged unless there are significant changes in operation requiring significant changes to the permit.

SUMMARY OF 1982 SOLID WASTE LEGISLATION

AB 2906 (Lehman)

This bill contains several parts which are enumerated below.

1. Changes the Board's name to "California Waste Management Board".
2. Deletes the three ex-officio members from the Board

Department of Health Services  
Department of Agriculture  
Department of Conservation

3. Provides that a waste-to-energy facility may not receive a permit to operate unless the project "has a defined source of waste, including waste available from existing solid waste transfer and processing stations"; and that the project is guaranteed an adequate waste supply for the life of the bonded indebtedness of the project, except that "materials which are being recycled or which may reasonably be expected to be recycled shall not be included in these quantities."
4. Makes minor changes regarding publically-operated waste-to-energy project contracts; and
5. Requires the Board to "study the effects of defining the sources of waste" for waste-to-energy projects on recycling and existing facilities.

AB 3302 (Chacon and Levine) and AB 3433 (Kabiloff and Lehman)

These two bills address the same subject in similar ways. Together they:

1. Require that solid waste facilities (disposal sites, transfer stations and waste-to-energy facilities) be designated in appropriate local government general plans before the California Waste Management Board can act on plan amendments, findings of conformance and permits. It also requires local governments to establish compatible land use adjacent to proposed or expanded sites that have been reserved in the plans for solid waste facilities.
2. Requires solid waste plans to include an implementation schedule by July 1, 1984. The schedule must indicate "approximate dates for the establishment, expansion, and closure" of solid waste facilities.
3. Expresses a state policy that solid waste planning shall include the "meaningful" participation of the public and private solid waste industry, and that it is the intent of the legislature to "foster and encourage private solid waste enterprises."
4. Authorizes counties and cities to adopt a schedule of fees to pay "only those costs incurred...for the preparation, maintenance and administration" of the solid waste plan. It further authorizes the county to make "any rate adjustments necessary to carry out the provisions of this subdivision."

TRANSPORTATION AND COMMUNITY DEVELOPMENT COMMITTEE

Committee Meeting  
Wednesday, February 27, 1985  
3:00 P.M.

1. Water Quality Issues Associated with Landfill Expansion
2. Water Quality Issues Associated with Existing (old) Landfill
3. Landfill Tonnages
4. Status Report - City's Disposal Project - Quarterly Report

TRANSPORTATION AND COMMUNITY DEVELOPMENT COMMITTEE  
PENDING ITEMS

1985

<u>Item</u>	<u>Requestor/ Date Requested</u>	<u>Responsible Department</u>	<u>Due to PWA</u>	<u>Meeting Date</u>	<u>Meeting Time</u>
* The Street Maintenance Story		PW		2/26	3:00 P.M.
Water Quality Issues Associated with Landfill Expansion	Committee 1/30	PW	2/13	2/27	3:00 P.M.
Water Quality Issues Associated with Existing (old) Landfill	Committee 1/30	PW	2/13	2/27	3:00 P.M.
Landfill Tonnages	Committee 1/30	PW	2/13	2/27	3:00 P.M.
Status Report - City's Disposal Project - Quarterly Report		PW	2/13	2/27	3:00 P.M.
* Automated Waste Collection System - 90-gal. Containers		PW/Finance		3/5	3:00 P.M.
Amendments to the Zoning Ordinance		Planning	2/27	2/27	2:00 P.M.
Water Resources Study- Report Back		PW	3/13	3/27	
Cleaning of City Sts.	Committee	PW	3/13	3/27	
City Space Needs Study- Phase II		Gen. Serv.	4/10	4/24	
Hazardous Waste Mgmt.		Fire			
Report Back - Southern Pacific Railroad Settlement		Attorney/PW			
Portable Signs (A-Frame, etc.)	Committee	Planning			

\*Combined Budget & Finance and Transportation & Community Development Committee Meeting

Updated 2/20/85