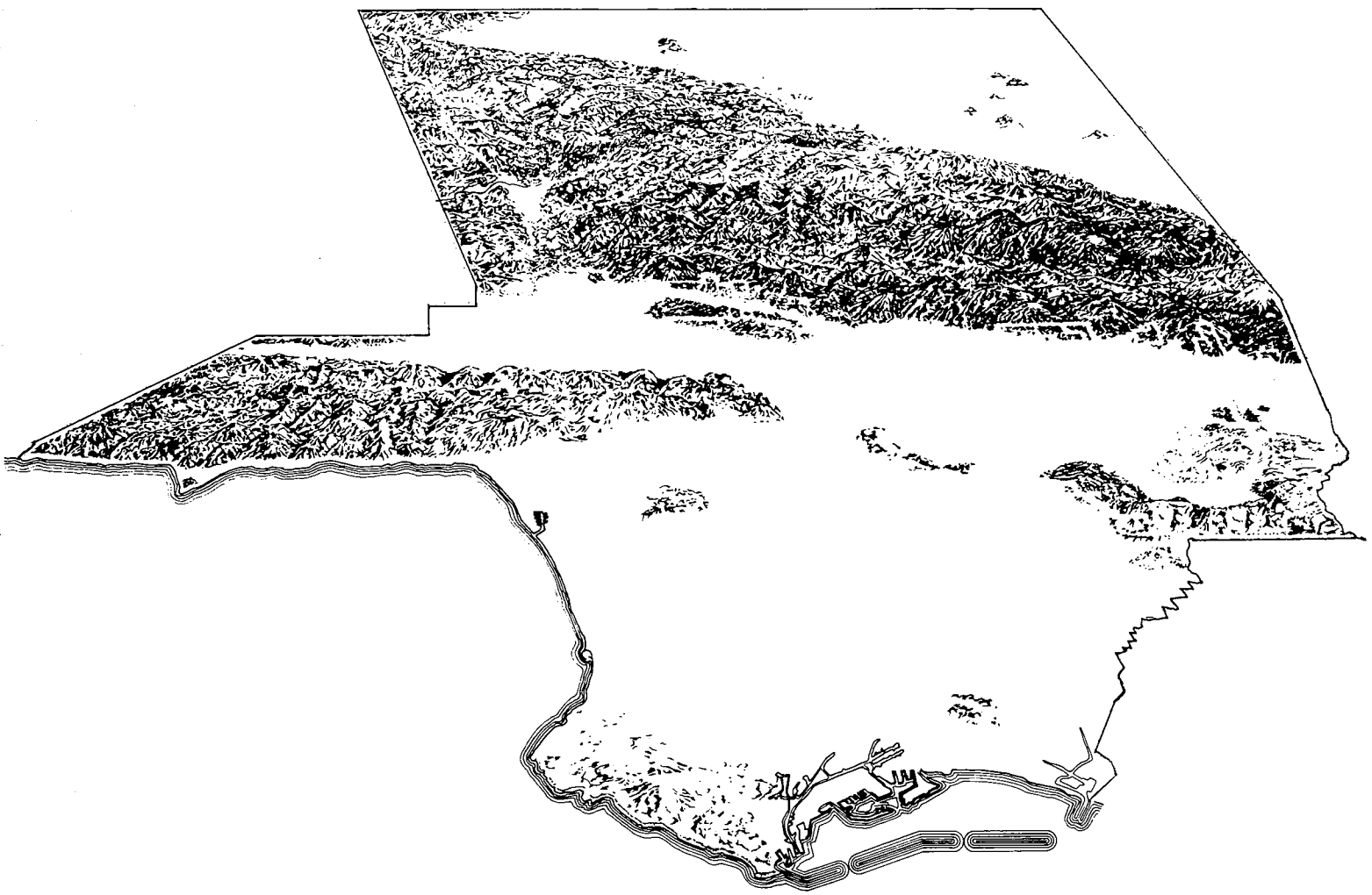
FINAL
ENVIRONMENTAL IMPACT REPORT
FOR
LOS ANGELES COUNTY
HAZARDOUS WASTE MANAGEMENT PLAN

SCH # 87122312



SEPTEMBER 1988
LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS

THIS REPORT CONSTITUTES THE
FINAL ENVIRONMENTAL IMPACT REPORT
FOR THE

COUNTY OF LOS ANGELES
HAZARDOUS WASTE MANAGEMENT PLAN

SCH# 87122312

County of Los Angeles
Department of Public Works
900 South Fremont Avenue
Alhambra, California 91802

September 1988

FINAL ENVIRONMENTAL IMPACT REPORT
LOS ANGELES COUNTY
HAZARDOUS WASTE MANAGEMENT PLAN

PART I
CHANGES IN DRAFT COHWMP
PUBLIC COMMENTS AND RESPONSES ON DRAFT EIR
SEPTEMBER 1988

PART II
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FINAL ENVIRONMENTAL IMPACT REPORT
LOS ANGELES COUNTY
HAZARDOUS WASTE MANAGEMENT PLAN

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PART I

CHANGES IN DRAFT COHWMP

PUBLIC COMMITMENTS
AND
RESPONSES ON DRAFT EIR

1.0 - CHANGES IN DRAFT CoHWMP

This Section consists of an identification of those changes to the Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) and an environmental analysis of the impact of those changes.

The following is a list of changes in the Draft CoHWMP which have been incorporated in the Final CoHWMP. Changes of an editorial nature or for the purposes of clarification were not evaluated for changes in the discussion of the EIR. The changes were made based on comments received from the cities, governmental agencies, public, private industry/manufacturing groups, environmental organizations and finally by the SDOHS. A summary of comments received are included in the Final CoHWMP, Volume III, Appendix 9E and 9F.

- Volume I, Figure 1 and Volume II, Chapter 6, Figure 6-1

  As a way to clarify, it's purpose and intended use, this map in Figure 5-9 of the Draft CoHWMP has been revised and renumbered to Figure 6-1 in the Final CoHWMP to incorporate comments by the cities and State Department of Health Services (SDOHS). This map identifies general geographical areas within the cities and the County unincorporated area which might meet the siting criteria and could potentially be suitable for off-site hazardous waste management facilities. This map is only for illustrative proposes. However, it may, but is not required to, be used by the County or the cities as a tool to designate lands for future rezoning to accommodate the siting of off-site hazardous waste management facilities.

  This change will not have an environmental impact for the purpose of the Final EIR. It will not change the environmental analysis of the EIR.

- Volume II, Chapter 6

  ° Figure 6-2 has been added to the Chapter 6 to identify selected land use data to assist in evaluation of potential off-site hazardous waste management facilities as stipulated by the SDOHS in their letter of May 3, 1988.

  Figure 6-2 provides additional environmental and planning information for the selection of sites for hazardous waste management facilities. As such, it is considered to be a positive, clarifying change.

- Volume III, Appendix 6-A, Siting Criteria

  ° The siting criteria has been revised in response to comments of the SDOHS in their letter of May 3, 1988. As directed by the SDOHS, a number of elements of the Siting Criteria were deleted and/or revised on the basis that they were already an integral part of the permitting process and, as such, must be addressed prior to the issuance of any Hazardous Waste Management Facility Permit. See Part III, Attachment VII for the SDOHS's comments of May 3, 1988.

  In addition, Appendix 6-A has been expanded to include the following:

  Local variations to the Siting Criteria will be allowed by the SDOHS provided the local criteria are:

a. Within the scope of California Environmental Quality Act (CEQA);

b. Currently applied to land use permits for other types of facilities within the County.

c. Demonstrated to be non-exclusionary for the County as a whole; and

d. Stated with adequate flexibility for modifications to account for specific circumstances, design, type, or waste facility and Waste.

Pursuant to Chapter 1167 of 1987 State Statutes, the CoHWMP does not limit the authority of a city to "attach appropriate conditions to the issuance of any land use approval for a hazardous waste facilities in order to protect public health, safety, or welfare and does not limit the authority of a city to establish more stringent planning requirements or siting criteria than those specified with county hazardous waste management plan."

These changes are intended to clarify the Siting Criteria. They do not eliminate any environmental protection established in the CoHWMP or existing permitting requirements. Rather, they provide clarification for local consideration.

The Siting Criteria in the CoHWMP are as mandated by the SDOHS. Furthermore, it is emphasized that each individual project will be subject to full environmental analysis and disclosure as required by the CEQA.

2.0 - PUBLIC COMMENTS AND RESPONSES ON DRAFT EIR

The Draft Environmental Impact Report (DEIR) for the Los Angeles County Hazardous Waste Management Plan was circulated for public review and comment from March 28, 1988 to May 15, 1988. In addition, a series of nine public hearings were held for the Draft CoHWMP and its DEIR between March 30, 1988 and April 21, 1988, at various geographical locations within the County of Los Angeles. The schedule and locations for these public hearings is contained in Attachment V, Part III of the this Final EIR. Offical notices and proof of publication is contained in Attachment IV, Part III of this Final EIR.

Nineteen letters were received with comments on the DEIR. Oral testimony, with comments specific to the DEIR, were presented by three persons during the public hearings.

Section 2.1 - List of persons, organizations and agencies commenting on the DEIR.

Section 2.2 - Written Letter Comments And Responses contains copies of the letters received commenting on the DEIR and responses to those significant points raised in these comments.

Section 2.3 - Oral Comments and Responses contains a summary of those oral comments directed at the DEIR during the public hearings and responses to those significant points raised in these comments.

Letters and public hearing testimony relative to the CoHWMP itself are documented under a separate cover in the Final CoHWMP, Volume III of Appendix 9E.

2.1 - LIST OF PERSONS, ORGANIZATIONS AND AGENCIES COMMENTING ON DEIR

Written Letters:

1. City of Lancaster, letter of April 11, 1988
   Kyle Kollar
   Director of Community Development

2. City of Irwindale, letter of April 20, 1988
   Carlos Alvarado
   City Engineer

3. City of Signal Hill, letter of April 21, 1988
   Robert L. Williams
   City Manager

4. City of Long Beach, letter of April 27, 1988
   Robert J. Paternoster
   Director of Planning and Building

5. County of Los Angeles Fire Department, letter of April 29, 1988
   James V. Daleo
   Fire Marshal

6. County of Los Angeles Department of Agriculture, letter of April 29, 1988
   Gary Maxwell
   Pesticide and Pest Management Division

7. City of La Verne, letter of May 4, 1988
   Linda S. Christianson
   Associate Planner

8. State Department of Fish and Game, letter of May 9, 1988
   Pete Bontadelli
   Director

9. City of Baldwin Park, letter of May 12, 1988
   Maureen F. Rait
   City Engineer

10. City of Claremont, letter of May 12, 1988
    Tina Ryder
    Associate Planner

11. City of Lakewood, letter of May 12, 1988
    William J. O'Neil
    Director of Public Works

12. State Department of Health Services, letter of May 12, 1988
    David J. Leu, Ph.D.
    Chief Alternate Technology Section
    Toxic Substances Control Division

13. City of El Segundo, letter of May 13, 1988
    Lynn M. Harris
    Director of Planning

14. City of Paramount, letter dated May 13, 1988
    Daniel E. Keen, AICP
    Community Development Manager

15. City of Santa Fe Springs, letter of May 15, 1988
    George Beaty
    Director of Environmental Management

16. City of Culver City, letter of May 16, 1988
    Jay B. Cunningham
    City Planner

17. South Coast Air Quality Management District, letter of May 18, 1988
    Brian W. Farris
    Senior Air Quality Specialist
    Planning Division

18. State Office of Planning and Research, letter of May 18, 1988
    David C. Nunencamp, Chief
    Office of Permit Assistance

19. County of Los Angeles Department of Health Services, letter of May 20, 1988
    Robert C. Gates
    Director of Health Services

Oral Comments:

1. Public Hearing of April 13, 1988 - Lancaster

    Gladys Cunningham
    44744 North Fern Avenue, Lancaster

2. Public Hearing of April 20, 1988 - Santa Clarita

   Ginger Bremberg, Councilwoman
   City of Glendale

3. Public Hearing of April 20, 1988 - Santa Clarita

   Christopher Gray
   City of Glendale Fire Department

2.2 - WRITTEN LETTER COMMENTS AND RESPONSES

This Section contains all written comments received on the DEIR and the County response. Only those comments identifying significant issues were responded to.

City of Lancaster

44933 North Fern Avenue
Lancaster, California 93534
805-945-7811

April 11, 1988

Los Angeles County
Dept. of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Attn.: Mr. Mike Mohajer

Dear Mr. Mohajer:

The Department of Community Development has reviewed your draft EIR and wishes to express the following concerns.

It is the staff's opinion that the EIR has not addressed all of the possible alternatives in Section 8.0 -DESCRIPTION OF ALTERNATIVES as required by Section 15126 (d) of the CEQA Guidelines, and that this Section should be expanded. Specifically, this should include the alternative of "Limiting the Development of Industry Which Generates Hazardous Waste"and other appropriate alternatives..

While the County may not desire to hinder its economic growth it does not appear realistic to rule out this alternative without at least examining it in the EIR. Clearly, if the County is not successful in its efforts to implement on-site reduction of hazardous waste generation then the number of sites and their capacity to store or treat such materials will have to be significantly increased with concomitant impacts on the environment. While the County must address the need to serve the existing industries no commitment should exist to serve future industries until it has been definitively demonstrated that existing hazardous waste management needs can be met for the foreseeable future.

Sincerely

Kyle Kollar
Director of Community Development

1. RESPONSE TO CITY OF LANCASTER (LETTER OF APRIL 11, 1988)

The comment suggests that the alternative of "Limiting the Development of Industry which Generates Hazardous Waste" would be an appropriate alternative to be considered in the EIR.

The legislative intent and objective of AB 2948 (Tanner, 1986), which requires the development of County Hazardous Waste Plans, is to ensure that safe, effective and economical facilities for the management of hazardous wastes are available when they are needed and that those facilities are of a type and operated in a manner which protects public health and environment. A plan to limit the development of industry which generates hazardous waste would not be consistent with the intent of the law requiring development of hazardous waste management plans nor with the State Guidelines for Preparation of Hazardous Waste Management Plans. Further, this type of analysis would become highly speculative, difficult to quantify since a variety of hazardous substances are generated and it would be difficult to identify which of the waste streams would be affected by such limitations. Because of these considerations, a plan or alternative of that nature, in our opinion, is not considered reasonable.

It should be noted, however, that both the CoHWMP and the EIR describe required elements which would limit the development of hazardous waste management facilities where the public health and environment are not adequately protected.

CITY OF IRWINDALE

5050 NORTH IRWINDALE AVENUE — IRWINDALE, CALIFORNIA 91706
(818) 962-3381

April 20, 1988

Refer to File
No. P47-14

Los Angeles County
Department of Public Works
Waste Management Division
P.O.Box 1460
Alhambra, CA 91802

Attention: Mr. Mike Mohajer

Subject: Los Angeles County Hazardous Waste Management Plan and Draft Environmental Impact Report

Dear Mr. Mohajer:

The City of Irwindale has had an opportunity to review the subject Waste Management Plan as prepared by Los Angeles County. I would like to make you aware that in Fig. 5-9, "General Areas Potentially Suitable for Off-site Waste Management Facilities", your office has indicated that most, if not all, of the City of Irwindale has a potential site for such a facility.

Please be advised that the entire City of Irwindale lies within an industrial Redevelopment Project Area. Thus, any facility such as hazardous waste would require a special permit from the Redevelopment Agency Board, as well as conditional use permits regarding the Municipal Code. It is extremely doubtful that such a facility would be allowed within the corporate boundaries of the City. We would therefore ask that you take note of these comments in order to reflect a more appropriate position as far as this City is concerned.

I wish to thank you for allowing the City of Irwindale to comment on this matter. Should you require any further information, please do not hesitate to call me.

Very truly yours,

CITY OF IRWINDALE

Carlos Alvarado

Carlos Alvarado
City Engineer

CA/ap
cc: Charles R. Martin, City Manager
Irwindale City Council

2. RESPONSE TO CITY OF IRWINDALE (LETTER OF APRIL 20, 1988)

No response is necessary.

2175 CHERRY AVENUE • SIGNAL HILL, CALIFORNIA 90806 • (213) 426-7333

CITY OF SIGNAL HILL

CENTER OF PROGRESS

April 21, 1988

Los Angeles County Department
Of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Attn: Mr. Mike Mohajer

SUBJECT: Response to Draft Environmental Impact Report

Dear Mr. Mohajer:

The City of Signal Hill has reviewed the Draft Environmental Impact Report for the Los Angeles County Hazardous Waste Management Plan. The City's Department of Planning & Community Development submits the attached comments for your consideration. The comments were approved by City Council on April 19.

If you have any questions regarding these comments, please contact Gary Jones at (213) 426-7333, extension 240.

Sincerely,

Robert L. Williams
City Manager

RLW/BB/vma

Enc - 1

EXHIBIT A

Itemized response to Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) and accompanying Draft Environmental Impact Report.

The city of Signal Hill has reviewed the documents and requests that the following issues be clarified:

1.0 The Selection of the General Areas Appropriate for Hazardous Waste Facilities

1.01 The Plan identifies the general areas suitable for hazardous waste facilities. The designation of these areas may impact growth in these areas and adjacent areas. How are the general areas delineated? By block, census tract, city boundaries, zoning boundaries, etc? How can a map with delineated boundaries be obtained?

1.02 Do the general areas consist only of heavy industrial areas? Do they include light and commercial industrial areas?

1.03 Does the county or the city make the final evaluation of a general area or specific site against the siting criteria?

1.04 Were those residents within one mile of the "general areas" which were designated by the plan as potential areas for siting notified?

2.0 Role and Responsibility of Local Government

2.01 The Plan may identify necessary additional local hazardous waste management programs. Will the plan address the feasibility and cost of providing "necessary" programs which do not presently exist? Which public/private sector agencies will fund the programs?

2.02 The Plan identifies specific on-site criteria and mitigation measures to reduce the risk and potential for accidents, including upgrading road conditions and improving traffic controls. The Plan does not identify the source of funding for the recommended infrastructure improvements.

3.0 Discussion of Environmental Factors

3.01 California State law requires that new hazardous waste disposal facilities be at least 2,000 feet from any permanent place of residence or other sensitive land uses. Does this apply to land currently in residential use and land zoned for future residential use?

3.02 The Study states that the "population at risk" should be evaluated by the facility developer. Is this based on the current population or an anticipated growth patterns of the area?

3.03 If a city determines no adequate buffer is possible between a hazardous waste facility, adjacent sensitive land uses or immobile populations, can the City prohibit a hazardous waste facility?

3.04 The EIR states there will be no significant impact on land uses resulting from the development of hazardous waste management facilities since the facilities are recommended to be sited in existing industrial zoned areas. This statement may not be accurate if other industrial uses are hesitant to locate near a hazardous waste facility.

3.05 The EIR states the Plan will not provide for population growth or additional homes. The EIR should discuss decline in population or housing due to reluctance of potential residents to locate near a site or near an area approved for a site.

3.06 The study states "Facilities should avoid locating in, or near (natural, recreational, cultural, and aesthetic resources)." Which agency makes the final decision as to whether a facility should or should not locate on a specific site?

3.07 The study states "No facilities should be sited so as to preclude extraction of minerals necessary to sustain the economy of the State." Will an area or site which exacts any amount of natural minerals be considered exempt, or is there a minimum level (amount) of extraction used as a standard? If a site produces only one barrel of oil a year, would it be exempt from siting?

3.08 The Plan states that where applicable, lands should be rezoned to site hazardous waste facilities close to their point of generation. Which agency makes the final zoning determination?

3.09 If a community does not generate hazardous waste, is it required to permit hazardous waste facilities?

3.10 The Initial Study states that siting a waste management facility may "stimulate change" and stimulate increases in property values. The study should clearly state that the siting of such a facility could instead decrease properties values.

3.11 The EIR states "Where facility development potential can occur, as shown in the CoHWMP's map of areas potentially suitable for the development of hazardous waste management facilities, the options of future generations with regard to the use of this land would be for the most part unchanged". The EIR needs a more detailed analysis of how future uses could change.

3.12 The study states that if an independent study predicts a negative change in property values due to facility location, the applicant should provide a reasonable program for compensating the affected landowners. Is there a geographic boundary limiting the radius of affected property owners?

3.13 The EIR states "The direct impacts of the CoHWMP on both current and future generations would be beneficial". The EIR does not address possible negative impacts.

3.14 What assumption would support the statement that there will be a net increase in employment. Existing surrounding industrial businesses may leave. New businesses may not be established in the area. Employment may increase more with a different industrial use.

3.16 The EIR states that siting criteria restrictions may reduce and/or eliminate possible long-term effects resulting from the siting of hazardous waste management facilities in areas which are suitable for such uses. Yet it states that implementation of the CoHWMP will not cause irreversible long-term environmental changes. Accepting the reduction of an effect means an irreversible change of some magnitude will be caused. These effects should be discussed.

The description of alternatives consists of two and one-half pages, and evaluates adopting this plan against not adopting this plan. Instead, or in addition, this section should evaluate this plan against several alternative plans.

3. RESPONSE TO CITY OF SIGNAL HILL (LETTER OF APRIL 21, 1988)

a. Comments 1.01 and 1.02. The Final CoHWMP, Volume II, Chapter 6 and and Volume III, Appendices 6A and 6B, fully describes the process used in identifying the potentially suitable areas for off-site hazardous waste management facilities.

b. Comment 1.03. The local jurisdiction having control over the land use permit has the ultimate responsibility to verify a specific site's compliance with the CoHWMP siting criteria. Additional criteria may be imposed by the jurisdictions as described in the CoHWMP's Volume II, Chapter 6 and Volume III, Appendix 6A.

c. Comment 1.04. The CoHWMP does not identify any specific site or facility. However, should a specific proposal be made for a facility, then the project proponent and the permitting agency must comply with all public notification requirements as mandated in CEQA, California Health and Safety Code, RCRA and all other applicable laws and regulations. It should be noted that the County Department of Public Works conducted several public workshops and public hearings throughout the County or the Draft CoHWMP. Refer to Appendix 9B, Volume III, CoHWMP.

d. Comments 2.01 and 2.02. The comments are not directly related to the DEIR and no response is necessary.

e. Comment 3.01. The CoHWMP does not identify any area for residual resposi-tories at this time. However, should one be proposed, the 2,000-foot buffer zone from residential areas must be provided as stipulated in Appendix 6A, Volume III, of the CoHWMP.

3. RESPONSE TO CITY OF SIGNAL HILL (LETTER OF APRIL 21, 1988) CONTINUED

f. Comment 3.02. The standards for assessment for off-site hazardous waste management facilities are reviewed on a case-by-case basis. The local agency with land use jurisdiction will make the determination as long as their determination is based on standards generally applied on a Statewide and regional basis, by the SDOHS, U.S. EPA and local air quality management district.

g. Comment 3.03. The local jurisdiction has the authority to stipulate additional siting criteria beyond those specified in the CoHWMP pursuant to Chapter 1167 of the State Statutes of 1987 and Chapter 1589 of the 1988 State Statutes.

h. Comment 3.04. The areas identified for hazardous waste management facilities include industrial areas which can be the prime generators of hazardous waste, thus minimizing potential problems associated with the transport of these wastes.

i. In regard to Comment 3.05, see Volume III, Appendix 6A, pages 6A-46 through 6A-48 of the CoHWMP. Furthermore, the lack of a CoHWMP could have a detrimental or negative effect on land values if industry relocates because of the impact on their ability to dispose of hazardous waste.

j. Comment 3.06. The local land use agency and other agencies with permitting responsibility would make the determination.

k. Comment 3.07. The appropriate State agency will make the determination.

l. Comment 3.08. The local governing body will make the decision.

m. Comment 3.09. The CoHWMP does not mandate siting of off-site hazardous waste management facilities. However, the plan recognizes that each city/ county should accept responsibility for management of hazardous waste generated within its jurisdiction.

n. Comment 3.10 is noted. However, some jurisdictions would welcome new industry because of the expanded tax base. Refer also to response in (i), above.

o. Comment 3.11. The map identifying the general geographical area which might meet the Siting Criteria could potentially be suitable for off-site hazardous waste management facilities is for illustrative purposes only and may, but is not required to, be used by the local jurisdictions as a tool to designate lands for future rezoning to accommodate the siting of off-site hazardous waste management facilities. It should also be noted that the rezoning responsibility of any area within a jurisdiction will remain with the governing body of that jurisdiction.

p. Comment 3.12. The CoHWMP contains provisions (Volume III, Appendix 6A) with respect to compensation incentives and the criteria specify that the scope of the study should be agreed to by both the developer and the local jurisdiction.

q. Comment 3.13. Impacts and mitigation measures identified in the DEIR are not intended to be all inclusive nor designed to preclude site-specific environmental analysis. Proposals for site-specific facilities will undergo intensive environmental assessment and evaluation and, as such, will be

more likely to elicit more specifically possible negative impacts. The major intent of the CoHWMP is to provide for the handling, treatment and disposal of hazardous waste in an environmentally safe manner.

r. Comment 3.14. The CoHWMP, if adopted and implemented as proposed, will provide a planning framework for the siting of needed off-site hazardous waste facilities. If needed, facilities are built. New businesses which generate hazardous waste can be built resulting in an increase in employment. Further, existing businesses may be enabled to remain.

s. Comment 3.16. A major emphasis of the siting criteria is directed toward safeguarding natural resources and the environment by facilitating siting of hazardous waste management facilities in areas suitable for such use. This then would prevent the siting of facilities in areas which would cause irreversible changes to our natural resources (e.g., hillside area, significant ecological areas, agricultural land).

CITY OF LONG BEACH
DEPARTMENT OF PLANNING & BUILDING
333 WEST OCEAN BLVD. • LONG BEACH, CALIFORNIA 90802
(213) 590-6651

April 26, 1988

Mike Mohajer
Los Angeles County Department
of Public Works
Waste Management Division
P. O. Box 1460
Alhambra, CA 91802-1460

Dear Mr. Mohajer:

Thank you for giving us the opportunity to review the Draft EIR for the Los Angeles County Hazardous Waste Management Plan.

Generally, we concur with the goals and recommendations of the plan. Our areas of greatest concern are the locations of potential suitable sites and the siting criteria. The siting criteria appears adequate and reflect our city ordinance requirements. The Long Beach Health Department reviewed the document and concurs with the siting criteria and the finding that states "the siting of the hazardous waste facility should not have a negative impact on the health or safety of the residents of Southern California. . ." Again, we would strongly urge that considerable attention be given to encouraging industries who produce hazardous waste to formulate a waste reduction plan to employ new waste reduction technologies and to conduct waste audits.

We look forward to receiving the Final EIR.

Sincerely,

Robert J. Paternoster
Director of Planning and Building

RJP:jm

4. RESPONSE TO CITY OF LONG BEACH (LETTER OF APRIL 26, 1988)

No response is necessary. However, Chapter 7, Volume II, of the CoHWMP recommends measures to be implemented by the governmental and private industries for waste minimization programs.

COUNTY OF LOS ANGELES
FIRE DEPARTMENT

POST OFFICE BOX 3009, TERMINAL ANNEX
LOS ANGELES, CALIFORNIA 90051

(213) 267-2481

JOHN W. ENGLUND
FIRE CHIEF
FORESTER & FIRE WARDEN

April 27, 1988

Mike Mohajer, Project Manager
Los Angeles County Department
of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Dear Mr. Mohajer:

SUBJECT: ENVIRONMENTAL IMPACT REPORT — LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN (SCH #87122312)

Our evaluation of the impact on fire protection and paramedic service for the proposed development is based on the current level of service available within the general area. With this in mind, additional manpower and equipment may be required as the need arises.

SERVICE RESPONSIBILITY

Due to the fact that only limited information is available on this project at the present time, we are not able to respond completely as to how this project will affect our Department. We would like to reserve the right to respond further at a future date when more specific information is available.

DESIGN AND CONSTRUCTION

The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.

Fire life safety requirements for the proposed facilities will be addressed at the building plan check stage.

FORESTRY DIVISION
The review should include Kern County as a major part of our regional setting. Especially with the rapid development in the high desert, Kern County should be included.

Section 4.3 - Kern County air basin or adjoining air basins are not identified.

While the area is small, the northwest corner of the County drains toward the central valley (Section 5.2.3).

Section 5.5 does not recognize the major effect fires have on plant/animal diversity, nor its impact on soil erosion and flooding.

Section 6.2, pages 6-8 & 6-9, the proposed design should address the 80+ acre/feet of runoff water that will be produced as a result of the creation of impervious surfaces. This estimate is based upon 12" of rainfall. Greater amounts (4x) could be expected during high rainfall years. Such amounts of runoff could pose downstream or off-site flooding.

If you have any questions, please feel free to contact me at 267-2481.

Very truly yours,

JOHN W. ENGLUND

BY
JAMES V. DALEO, FIRE MARSHAL
PREVENTION & CONSERVATION BUREAU

JVD:lc

5. RESPONSE TO COUNTY OF LOS ANGELES FIRE DEPARTMENT (LETTER OF APRIL 27, 1988)

Comments relative to regional and County environmental setting are noted. The regional and County environmental settings are thought to be satisfactory for the purposes of this EIR. As has been noted in the DEIR, individual project proposals for new off-site hazardous waste management facilities or expansion of existing facilities, at specific sites, will require in-depth specificity in the site-specific environmental assessment, evaluation and documentation required by CEQA, as well as a site-specific siting assessment, health risk assessment and permitting process. Where necessary, in site-specific EIR's, the regional setting would include Kern County and the Kern County Air Basin and the County environmental setting would describe any pertinent drainage toward the central valley.

It is acknowledged that brush fires pose a hazard to plant/animal diversity and may also represent a potential impact with respect to soil erosion and flooding.

The comment also suggests that runoff water resulting from impervious surfaces created by a residuals repository could pose downstream or off-site flooding. However, it should be noted that the environmental assessment as well as conditional use permit and facility permitting process would take this into consideration and require appropriate measures to prevent or mitigate any problems of runoff water from the site. The design and operational characteristics of residuals repositories are also designed to prevent precipitation from reaching residues and running off-site as potentially hazardous runoff water.

COUNTY OF LOS ANGELES

Department of
Agricultural Commissioner
and Weights and Measures

3400 La Madera Avenue
El Monte, California 91732

E. Leon Spaugy
Agricultural Commissioner/
Director of Weights and Measures

William A. Edwards
Chief Deputy

April 29, 1988

Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, California 91802-1460

Attention: Mike Mohajer
Official review of the March 1988 Environmental Impact Report (SCH#87122312) for the Los Angeles County Hazardous Waste Management Plan

Dear Mr. Mohajer:

After review of EIR (SCH#87122312), Los Angeles County Draft Hazardous Waste Management Plan, we have found that it addresses the hazardous waste problem adequately in regards to our department and agricultural community.

The Agricultural Commissioner/Weights and Measures Department has a hazardous waste storage and transfer facility in Pico Rivera which is currently meeting operating requirements outlined in the plan.

We were pleased that the report addressed agricultural areas and recommended avoiding siting hazardous waste facilities in these areas.

Thank you for giving us the opportunity to review the Hazardous Waste Management Plan.

Sincerely,

Cato R. Fiksdal
Deputy Agricultural Commissioner

By: _____
Gary Maxwell
Supervising Inspector
Pesticide & Pest Management Division

CRF/GM/dm

cc: Spaugy
Edwards
Donley

6. RESPONSE TO COUNTY OF LOS ANGELES - DEPARTMENT OF AGRICULTURAL COMMISSIONER AND WEIGHTS AND MEASURES (LETTER OF APRIL 29, 1988)

No response is necessary.

CITY OF LAVERNE
CITY HALL, 3660 'D' STREET
LA VERNE, CALIFORNIA

May 4, 1988

Los Angeles County Department
of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460
Attention Mike Mohajer

RE: Review of EIR (SCH#87122312) for the
Los Angeles County Hazardous Waste Management Plan

Dear Mr. Mohajer:

The La Verne Community Development Department has reviewed the draft EIR for the Los Angeles County Hazardous Waste Management=Plan. Thank you for providing this opportunity to comment.

The community development department has no outstanding comments regarding the EIR. However, we have enclosed our comments on the plan for your information.

Thank you for the opportunity to comment. If you need further information, please don't hesitate to contact this office at (714) 596-8706.

Respectfully,

Linda S. Christianson

Linda S. Christianson
Associate Planner

Attachments: Letter to K. Kvammen

LTRHWMP

Sister City
Cambaro, Mexico

General Administration - 596-8726 • Public Works - 596-8741
Finance - 596-8716 • Water Customer Service - 596-8744 • Parks & Human Services - 596-8700
Planning - 596-8706 • Building - 596-8713

7. RESPONSE TO CITY OF LA VERNE (LETTER OF MAY 4, 1988)

No response is necessary.

ate of California — The Resources Agency

Memorandum

To: 1. Projects Coordinator
Resources Agency

Date: May 9, 1988

2. County of Los Angeles
Department of Public Works
900 S. Fremont Avenue
Alhambra, CA 91802-1460

From: Department of Fish and Game

Subject: Draft Environmental Impact Report (DEIR): Los Angeles County Hazardous Waste Management Plan, SCH 87122312

We have reviewed the DEIR for the County Hazardous Waste Management Plan (HWMP) which establishes the policies and guidelines for planning and management of hazardous waste in Los Angeles County as mandated by California state statutes. The purpose of the HWMP is to establish criteria and guidelines and to identify general areas suitable for locating specific sites for hazardous waste management facilities. Such sites must meet the guidelines established in the HWMP in addition to completing a rigorous site-specific assessment and permitting process at local, state, and federal levels.

In examining environmental factors relative to the HWMP, we have the following specific concerns:

1. Wording on page 6-27 should be changed to indicate that the State Department of Health Services criteria protects plant and animal life in environmentally sensitive areas.

2. Development of hazardous waste management facilities should not be allowed within wetlands, riparian areas, or oak woodlands. Requirements of the HWMP should be modified to include these restrictions.

Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Fred Worthley, Regional Manager of Region 5, at 245 W. Broadway, Suite 350, Long Beach, CA 90802-4467 or by telephone at (213) 590-5113.

Pete Bontadelli

Pete Bontadelli
Director

8. RESPONSE TO STATE DEPARTMENT OF FISH AND GAME (LETTER OF MAY 9, 1988)

1. Comment is noted. A correction of the last sentence on page 6-27 will better and more accurately reflect the SDOHS criteria. Change the word "prevent" to "preserve".

2. Comment is noted. The proposal is not consistent with Siting Criteria mandated by SDOHS to be used in the CoHWMP. The CoHWMP Siting Criteria (Appendix 6-A, Volume III) does not allow siting a facility in wetland areas unless it meets additional specified criteria and providing it is approved by the SDOHS. Individual projects will be evaluated with respect to the concerns of wetlands, riparian areas and oak woodlands.

City of Baldwin Park
CIVIC CENTER
14403 EAST PACIFIC AVENUE • BALDWIN PARK, CALIFORNIA 91706
TELEPHONE 960-4011

May 12, 1988

Mr. T.A. Tidemanson, Director of Public Works
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Attention: Mr. Mike Mohajer

RE: Environmental Impact Report

Dear Mr. Tidemanson:

At their May 4, 1988 meeting the Baldwin Park City Council approved the Draft Environmental Impact Report for the Los Angeles County Hazardous Waste Management Plan.

If you have any questions regarding this matter, please contact our office at (818) 960-4011, extension 255.

Sincerely,

DEPARTMENT OF COMMUNITY SERVICES

Maureen F. Rait
City Engineer

MFR/jkh

9. RESPONSE TO CITY OF BALDWIN PARK (LETTER OF MAY 12, 1988)

No response is necessary.

207 HARVARD AVE. • P.O.BOX 880 • CLAREMONT 91711 • (714) 624-4531 • DEPARTMENT OF COMMUNITY DEVELOPME

May 12, 1988

Mr. Michael Mohajer
Los Angeles County
Department of Public Works
Waste Management Division
P. O. Box 1460
Alhambra, CA 91802-1460

SUBJECT: **Response to the Draft Environmental Impact Report (SCH #87122312) for the Los Angeles County Hazardous Waste Management Plan**

Dear Mr. Mohajer:

The City of Claremont appreciates the opportunity to review and comment on the above-referenced draft environmental impact report (DEIR) for the Los Angeles County Hazardous Waste Management Plan. The City of Claremont's Environmental Quality Commission (EQC) serves as the hearing body responsible for conducting the environmental review of projects.

The EQC notes that Claremont's desire to preserve a residential community of high standards guides much of our planning process. A household hazardous waste collection facility or a small quantity generator transfer storage facility may be exemplary of the role that Claremont could play in hazardous waste management.

The EQC's major concerns regarding siting a hazardous waste facility include 1) protecting the public's general health, safety, and welfare, 2) maintaining Claremont's desirable residential qualities, 3) promoting public participation in the decision-making process, 4) ensuring facility siting near major waste producers, and 5) protecting the integrity and quality of Claremont's environment. The EQC requests that the DEIR address the alternative of regional planning and multi-facility siting, including a discussion of coordinating with the Southern California Hazardous Waste Management Authority.

The EQC encourages coordination and communication between the Office of Permit Assistance (OPA) in the Office of Planning and Research, the local and regional legislative bodies, and any responsible agencies. We are also concerned that residents and cities receive proper notification regarding proposals for facility siting, expansion, or modification.

The DEIR should indicate that the local agency will circulate the notice of intent regarding proposed hazardous waste management facilities to the Southern California Association of Governments (SCAG) so that it can be listed in SCAG's semi-monthly intergovernmental review report. The EQC would like this to occur

in order to help provide meaningful opportunities for public involvement, to allow the public to make their concerns known, and to cause them to be taken into consideration as part of the decision-making process. We request that Claremont be notified of all proposed hazardous waste facility projects in the county.

The EQC notes that the DEIR is written from an advocacy standpoint, de-emphasizing environmental impacts. A synopsis of the environmental impact analysis/mitigation measures section should be provided in table form as part of the executive summary. The EQC reports that establishing siting criteria does not guarantee that their intent will be carried out. The DEIR should provide a more exhaustive consideration of potential effects and alternatives associated with adoption and implementation of the plan, including feasible mitigation measures.

The EQC requests that the DEIR's plant and animal life section state that no facilities shall be located in wetland areas due to their environmental sensitivity and increasing diminishment. The DEIR also needs to specify what measures will be undertaken to prevent adverse impacts on plant and animal life.

We feel uncomfortable about the DEIR's lack of specificity regarding project locations and facility types. The EQC supports requiring a detailed environmental analysis for each proposed site selected for a hazardous waste management facility. We would like to note that unless the DEIR includes worst case scenarios for each type of facility, so that the impacts can be mitigated, it needs to specify that an EIR will be required for each site selected. Additionally, the EQC disagrees with the "beneficial effects section" because the DEIR does not provide enough information about potential site specific and program-wide mitigation measures.

If any questions should arise regarding these comments, please feel free to contact me at 714/624-4531, extension 257. Once again, the EQC appreciates the opportunity to comment on the DEIR and looks forward to receiving the final document.

Sincerely,

Tina Ryder

TINA RYDER
Associate Planner

TR/kb

10. RESPONSE TO CITY OF CLAREMONT (LETTER OF MAY 12, 1988)

The concern, interest and comments of the City of Claremont with respect to citizen notification and involvement in matters and decisions related to hazardous waste management issues is noted and acknowledged. This issue is addressed in Chapters 6, 9 and Appendices 6-A and 6-C, Volumes II and III, respectively, of the Final CoHWMP.

State law requires the County Hazardous Waste Management Plans to be consistent with Regional Hazardous Waste Management Plans. As such, staff from the DPW have communicated with staff of the Southern California Hazardous Waste Management Authority throughout the preparation and finalization of the CoHWMP.

State law also mandates that the State Office of Permit Assistance (OPA) notify the local governing body should a hazardous waste management facility be proposed in a city. To ensure citizen involvement, State law further requires that the local governing body must form a local citizen advisory committee to review and comment on the proposed facility. This process is fully described in Appendix 6-C, Volume III, of the CoHWMP.

It should be noted that the DEIR is a Tiered EIR and was prepared in accordance with CEQA requirements which allows the specificity and depth of environmental evaluation to be less for CoHWMP's than for individual project proposals. The discussion of impacts and associated mitigation measures provided in the EIR are designed to provide general information on facilities and site-specific impacts and mitigation measures are intended to be discussed at the time such projects are proposed. The impacts and mitigation measures identified in the DEIR are not intended to be all inclusive nor designed to preclude site-specific environmental analysis.

The CoHWMP has stipulated that before a facility is permitted, site-specific environmental assessment in compliance with CEQA must be completed. It is the local governing body's responsibility to make a determination as to the need for preparation of an EIR. The authority to require EIR's is derived from the CEQA which delegates such responsibility to the local governing body having jurisdiction.

May 12, 1988

Mr. T. A. Tidemanson
Director of Public Works
County of Los Angeles
Department of Public Works
P.O. Box 1460
Alhambra, CA 91802-1460

Attention: Mike Mohajer

Dear Mr. Tidemanson:

Subject: Official Review of The March 1988 Environmental Impact Report (SCH #87122312) For The Los Angeles County Hazardous Waste Management Plan

In response to your correspondence of March 28, 1988 regarding the subject report, the City has reviewed the EIR prepared for the CoHWMP and has the following comments:

Environmental Impact Analysis/Mitigation Measures, page 6-1.

This section indicates that although a generic need for hazardous waste management facilities was identified in the CoHWMP, "the precise number, size, location and type or nature of facilities to be built is not known at this time." The City's opinion is that some estimation of need should be made, otherwise the project parameters are undefinable and the goal of the CoHWMP is unclear making attainment impossible. Projections can and should be made regarding number, size, location (general) and type of facilities.

Design and Operational Characteristics, page 6-2.

Characteristics of the various types of facilities are described including site size, number of employees and capacities. These descriptions should be correlated with a projected need to further define the project and its potential impacts. For example, on page 6-8, there is a description of a conceptual design for a two-hundred (200) acre facility to receive and deposit 160,000 cubic yards of residual material per year for twenty-five (25) years. This sounds beneficial but the adequacy or sufficiency of this facility cannot be determined.

Lakewood.

5050 N. Clark Ave., P.O. Box 158, Lakewood, CA 90714 213/866-9771—213/773-2964

Description of Alternative, page 8-1 to 8-3.

This section fails to describe alternative sites as per the recent decision in Citizens of Goleta Valley versus Board of Supervisors of the County of Santa Barbara, 243 Cal. Rptr. 339 (1988), in which the Second Appellate District ruled that EIR's must evaluate alternative sites for a project.

Lastly, the City indicates two potential adverse impacts which are not adequately addressed: transportation of hazardous waste materials from sources, through communities to the facility; and odors emanating from the storage or treatment facilities.

We would also like to reiterate our comments of September 15, 1987:

1. A copy of the City of Lakewood's land use map is attached. Light and heavy manufacturing zones (M-1 and M-2) are noted.

2. At present, the siting of hazardous waste management facilities is not permitted under the Lakewood Municipal Code.

3. There are no criteria for review and approval of these facilities.

4. Lakewood's General Plan is scheduled to be updated in 1990.

After review, if there are still additional questions, please do not hesitate to contact us.

Very truly yours,

William J. O'Neil
Director of Public Works

/lc

c.c.: Howard L. Chambers, City Administrator

Attachment 2

11. RESPONSE TO CITY OF LAKEWOOD (LETTER OF MAY 12, 1988)

The DEIR has erroneously indicated that the hazardous waste management facilities needed and specified in the CoHWMP are generic rather than actual. The CoHWMP specifies the number, type and size of needed hazardous waste management facilities. These are described in Chapter 5, Volume II, of the CoHWMP.

Subsection 6.2 - Design and Operational Characteristics of the DEIR was included to facilitate the general discussion of potentially significant impacts and feasible mitigation measures. It is not appropriate and was not intended that these examples be such as to enable a specific determination of the adequacy or sufficiency of such facilities. This must be determined on an individual, case-by-case, site-specific basis.

The CoHWMP does not nor is it intended to specify any specific sites for hazardous waste management facilities. Therefore, specification of alternative sites is not appropriate. The Final CoHWMP does identify general geographic areas for potentially suitable off-site hazardous waste management for illustrative purposes only and may, but is not required to, be used by the local jurisdictions as a tool to designate lands for future rezoning to accommodate the siting of facilities.

The potential adverse impacts regarding transportation of hazardous waste from generation sites to management facilities have been fully discussed in the DEIR, Chapter 6, Subsection 6.4.1-I.

Additionally, routing guidelines have been provided in Chapter 8, Volume II, of the CoHWMP which would provide mitigation measures in addition to those specified in the Siting Criteria, Appendix 6-A, Volume III, CoHWMP.

In regard to the adverse impacts of odors emanating from storage or treatment facilities, impacts are discussed in the DEIR, in Subsection 6.4.1-B Air. Air pollution control measures identified in Tables 6-1, 6-2, 6-3 and 6-4 also may be applied to control of odors emanating from the storage or treatment facilities. Furthermore, such facililties are proposed to be located in industrial zoned areas to minimize the impact of odor on any residential development. See Siting Criteria in CoHWMP.

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814

(916) 324-1807

May 12, 1988

Michael Mohajer
Department of Public Works
Los Angeles County
900 S. Fremont Avenue
Alhambra, CA 91802

Dear Mr. Mohajer:

LOS ANGELES COUNTY HAZARDOUS MANAGEMENT PLAN DRAFT EIR
(SCH #87122312)

The Alternative Technology Section, in conjunction with the Southern California Section of the Toxic Substances Control Division, has reviewed the draft Environmental Impact Report (EIR) for the draft County Hazardous Waste Management Plan (CHWMP). The Department is a responsible agency under the provisions of the California Environmental Quality Act (CEQA) and the final approving agency for the CHWMP developed by the County of Los Angeles pursuant to AB 2948 (Tanner, 1986).

In addition to the comments on the draft EIR presented below, the County will need to consider the comments which the Department provided in a letter dated May 3, 1988 concerning the draft CHWMP. In the event that certain comments should require a change in the scope of the final CHWMP, the County should reflect such changes in the scope of the final EIR as well.

I. Scope of a Tiered EIR

The final EIR should focus on the general impacts associated with adoption and implementation of the final CHWMP. As currently written, the draft EIR focuses on site specific impacts which can only be accurately assessed at the project specific level. As such, many of the conclusions reached from the site specific assessment were inappropriately used to justify the argument that the impacts created from implementation of the CHWMP will be reduced to a level of insignificance.

This level of assessment could potentially encourage a site specific project proponent futilely attempting to use the document to justify preparation of a negative declaration and avoid full environmental disclosure required by CEQA.

The final EIR should state that the discussions of impacts and associated mitigation measures are designed to provide general information on facilities and that site specific impacts and mitigation measures are intended to be discussed at the time when such projects are being proposed. The final EIR should specify that the impacts and mitigation measures identified in the draft EIR are not intended to be all inclusive nor designed to preclude site specific environmental analysis.

Examples of certain sections of the draft EIR which need to be changed to clarify the above concerns are discussed below. Additional sections should be changed accordingly.

6.4.1 Impact Analysis/Mitigation Measures

A. EARTH

The third full paragraph on pages 6-15 states "The initial Study determined that adoption and implementation of the CoHWMP would not result in exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure or similar hazards". This sentence and accompanying support information is used out of context within the discussion of general impacts. This statement implies that the county has already assessed the likely impacts and appropriate mitigation measures associated with geologic hazards and that no further environmental assessment is necessary. Unless this is the case, this sentence should be deleted.

B. AIR

The second full paragraph on page 6-19 states "Overall, however, the impacts upon the community can be expected to be minimal, given modern emission control technologies and good management procedures are practiced". This statement is also out of context with the overall discussion of impacts and implies that the county has already assessed the likely impacts and appropriate mitigation measures associated with air quality and that no further environmental assessment is necessary. Unless this is the case, this sentence should be deleted.

II. Impact Analysis/Mitigation Measures

The siting criteria developed by the County are intended to be used in identifying areas or sites potentially suitable for the siting of facilities. While some criteria developed

in response to State or Federal laws may lead to mitigation of certain impacts through their application (e.g. 2000 foot buffer zone, 200 feet from an active earthquake, etc.), the use of the criteria as all inclusive mitigation measures for potential impacts created by adoption and implementation of the CHWMP is inappropriate.

The final EIR should specify that the siting criteria should not be viewed as all inclusive for the purpose of mitigating certain impacts created by either CHWMP implementation or site specific proposals. Further, the final EIR should consider the comments provided by the Department concerning siting criteria.

An example of a section of the draft EIR which needs to be changed to clarify the above concerns is discussed below. Additional sections should be changed accordingly.

6.4.1 Impact Analysis/Mitigation Measures

C. WATER

The statement at the top of page 6-25 that "... the siting criteria have specific guidelines to protect surface and groundwater supplies by requiring that all facilities be constructed in areas posing minimal threats" incorrectly implies that the siting criteria are all inclusive mitigation measures when, in fact, they are designed to assist in identifying areas or sites suitable for the siting of facilities from a land use perspective. While certain criteria developed by the Department concerning such locational considerations such as distances to residences, earthquake faults, wetlands, etc. may be factors limiting potential impacts in such areas, many of the criteria developed by the County may have no bearing on the issue of water quality from a siting standpoint. In such cases, the county should refer to the Department's comments concerning the criteria.

III. Environmental Setting

Since the CHWMP will be amending the county General Plan by designating general areas suitable for the siting of facilities, the discussion of environmental setting in the draft EIR should clearly identify the general areas within the county where facilities may be located. As such, the final EIR should reflect comments provided by the Department concerning the methodology used to arrive at the preferred areas.

IV. Alternatives

The statement in the draft EIR that off-site facilities will be developed if the CHWMP is implemented is misleading. This statement implies that the county and/or private industry will be developing facilities without support for such a statement.

The final EIR should be modified to state that implementation of the CHWMP will provide a planning framework for the siting of needed hazardous waste management facilities. In addition, the final EIR should state that impacts from such facilities will be addressed at the site specific project level, along with associated mitigation measures.

If you should have any questions regarding this matter, please contact Guenther Moskat, ATS Planning Unit, at (916) 324-1807 or Maria Gillette of the Department's Southern California Section Office at (213) 620-2380.

Sincerely,

for David J. Leu, Ph.D., Chief
Alternative Technology Section
Toxic Substances Control Division

cc: Ted Rauh
Department of Health Services
Toxic Substances Control Division
Southern California Section
107 South Broadway, Room 7011
Los Angeles, CA 90012

Maria Gillette
Department of Health Services
Toxic Substances Control Division
Southern California Section
107 South Broadway, Room 7011
Los Angeles, CA 90012

DJL:RR:dd

12. RESPONSE TO STATE DEPARTMENT OF HEALTH SERVICES (LETTER OF MAY 12, 1988)

a. In response to general comments by the State Department of Health Services regarding the Scope of a Tiered EIR, it should be noted that this Final EIR is not intended to be used by any project proponent to justify preparation of a Negative Declaration to avoid the full environmental assessment, documentation and disclosure required by CEQA.

The discussions of impacts and associated mitigation measures are designed to provide general information on the various types of facilities and site-specific impacts and mitigation measures are intended to be discussed at the time when such projects are proposed.

The impacts and mitigation measures identified in the DEIR are not intended to be all inclusive nor designed to preclude site-specific environmental analysis.

Wherever a statement in the DEIR regarding impacts and mitigation would appear to justify preparation of a Negative Declaration to avoid full environmental disclosure, the Final EIR as specified in the statements above are intended to qualify such perceptions.

b. The intent of the CoHWMP Siting Criteria is not to eliminate consideration of any potentially adverse impacts. The criteria serve as a tool to mitigate some of the possible adverse impacts which may potentially result from the siting of an off-site hazardous waste management facility. As such, the Siting Criteria should not be viewed as all inclusive for the purpose of mitigating certain impacts created either by the CoHWMP's implementation or site-specific proposed projects.

It should be noted that the Siting Criteria in the Final CoHWMP has been amended in accordance with comments provided by the SDOHS in their letter dated May 3, 1988. A copy of this letter is enclosed in Part III, Attachment VII of this Final EIR.

c. The Final CoHWMP (Chapter 6, Volume II) as amended in accordance with comments provided in the SDOHS letter of May 3, 1988, provides the detailed methodology used to identify general areas which might meet the Siting Criteria and could potentially be suitable for off-site hazardous waste manangement facilities. It should also be noted that the map (Figure 6-1, Volume II) in the Final CoHWMP is for illustrative purposes only. However, it may, but is not required to, be used by the County or the cities as a tool to designate lands for future rezoning to accommodate the siting of off-site hazardous waste management facilities. The Final CoHWMP, Volume II, Figure 6-2, also identifies selected land use data to assist in evaluating potential off-site hazardous waste management facility sites as stipulated by the SDOHS in their letter dated May 3, 1988.

d. The comment is noted. It is agreed that the Final CoHWMP will provide a planning framework for the siting of needed off-site hazardous waste management facilities.

e. Additionally, it is noted that in accordance with comments of the SDOHS in their letter of May 3, 1988, the Final CoHWMP, Volume II, Chapter 6, was amended to include a detailed discussion on the study conducted by the County of Los Angeles previously to identify sites for residuals repositories in the County.

City of El Segundo

350 MAIN STREET
EL SEGUNDO, CA 90245
(213) 322-4670

LYNN M. HARRIS, DIRECTOR
PLANNING DEPARTMENT

May 13, 1988

Mr. Mike Mohajer
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Re: Draft Environmental Impact Report for Los Angeles County Hazardous Waste Management Plan (SCH #87122312)

Dear Mr. Mohajer:

We have reviewed the Draft Environmental Impact Report for the County's Hazardous Waste Management Plan (COHWMP) and submit the following comments:

1. Pages 6-31 to 6-32. The statement that the COHWMP will not result in any substantial alteration in present or planned land uses in incorporated cities since facilities will be located in industrial areas, is unsubstantiated for the following reasons:

   - The map and text of the plan indicate that commercial areas (which typically do not allow industrial uses such as a waste disposal facility) are also designated as "potentially suitable sites."

   - The Tanner legislation states that a city will be required to amend its General Plan and Zoning to be consistent with the adoption COHWMP, regardless of whether the local agency ever approved the COHWMP.

   - The siting criteria for waste facilities is inconsistent with the map designation, which concentrate potential facilities in highly urbanized areas. Using the City of El Segundo as an example, the map designates roughly 75% of the City as a potential waste facility site; yet a large proportion of this area would be eliminated under the Residential siting criteria due to the location of residential zones and uses within 2,000 ft. of the designated sites (reference page A-2↑). This criteria is intended to provide a buffer to protect public health and safety, and should prevail, with the map designations amended accordingly.

2. Page 6-33. The plan states that the facility operator may have to supplement local emergency services or create an on-site response team to mitigate possible emergencies and health hazards. The El Segundo Fire Department does not have the capability to mitigate large or extremely hazardous waste releases which could occur at a local waste site. Costs for emergency equipment to do so could range to $500,000 dollars for a haz/mat response vehicle. Training and manning costs could run $300,000 per year. This issue is not adequately addressed by the plan and could create a major burden to emergency responders near such a facility.

On page 6-34 the plan assumes that agencies are in the process of addressing waste site emergency response. This is not the case, since all Fire Departments are developing plans to include equipment and training for the chemical inventories in the community at the present. A local waste facility would require a much larger expenditure than currently planned for emergency response and could overburden the present local emergency response capability of the El Segundo Fire Department.

In short, the Plan does not adequately or technically address the burden such a site would create for local emergency responders. It assumes that local Fire Departments can and will have the ability to control or mitigate possible incidents. The assumption does not take into account the extreme costs relative to such an endeavor or the funding required.

The CEQA Guidelines state that economic factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in the project are feasible to reduce or avoid significant environmental effects (Section 15131(c)). The assumption that local agencies will be equipped with the manpower, training and equipment to provide adequate emergency response, without considering the economic impact to the local agency, may render this mitigation unfeasible.

3. Page 6-35. The Environmental Impact Report indicates no impact on utilities (ie. the sewer system) resulting from the plan implementation. The assumptions here are again unfounded. Treated wastes will be discharged into the sewer system, subject to discharge limitations. However, the majority of these wastes would enter the Hyperion system, which currently exceeds capacity, does not meet discharge requirements, and is subject to frequent spills. Discharge of treated wastes from a facility such as allowed by the COHWMP would further contribute to this impact, with potential public health risks.

4. Pages 8-1 to 8-3. The Alternatives Analysis fails to describe viable plan alternatives. An obvious alternative which is not included is alternative locations designated on the map as potentially suitable for waste facilities. Using El Segundo as an example, the map designates potential sites located in highly urban areas, in close proximity to residential uses and regional employment centers which are critical to the nation's aerospace industry; alternative sites in the same general vicinity, such as on the airport property, should be evaluated.

In conclusion, the Draft Environmental Impact Report is very generalized and makes broad assumptions about the ability of future environmental procedures to adequately protect the public health and safety. The City of El Segundo believes that more in depth analysis of the siting criteria and map designations (on a larger scale than 1 inch = 4 miles) is necessary to adequately assess the impacts to the county.

We look forward to receiving a response to our comments in the Final Environmental Impact Report.

Sincerely,

Lynn M. Harris

Lynn M. Harris,
Director of Planning

Haz-Wst.EIR

13. RESPONSE TO CITY OF EL SEGUNDO (LETTER OF MAY 13, 1988)

a. The map identifying the general geographical area which might meet the Siting Criteria and could potentially be suitable for off-site hazardous waste management facilities is for illustrative purposes only and may, but is not required to, be used by local jurisdictions as a tool to designate lands for future rezoning to accommodate the siting of off-site hazardous waste management facilities. It should also be noted that the rezoning responsibility of any area within a jurisdiction will remain with the governing body of that jurisdiction.

b. The Siting Criteria has been developed in compliance with SDOHS Guidelines for the preparation of County Hazardous Waste Management Plans, dated June 30, 1987. These guidelines specify a minimum of 2,000-foot buffer zone from residential areas for any land disposal facility. The map, Figure 6-1, Volume II, of the CoHWMP does not identify any areas suitable for land disposal facilities.

c. The Emergency Response Plan for any new off-site hazardous waste management facility is required in conjunction with any land use/ conditional use permit. However, it should be noted that the CoHWMP does not identify any specific sites for development of off-site hazardous waste management facilities. As such, it would have been inappropriate for the DEIR to provide an impact analysis on the capability of any specific local fire department. The DEIR is a Tiered EIR and was prepared in accordance with CEQA requirements which allows the specificity and depth of environmental evaluation to be less for CoHWMP's than for individual project proposals.

The discussion of impacts and associated mitigation measures are designed to provide general information on facilities and site-specific impacts and mitigation measures are intended to be discussed at the time such projects are proposed. As such, the DEIR is not designed to preclude site-specific environmental analysis, including pertinent economic factors.

d. Contrary to the comment, the DEIR specifically states that there may be increased discharges to the sewer system after the wastes have been treated to meet the federal, State and local jurisdictions discharge requirements, provided the capacity exists. Such discharges would not have a negative impact on the existing sewer system.

e. The comment with respect to alternatives is confused in that it offers an alternative to an element of the project. It does not offer an alternative to the project as a whole (i.e., an alternate plan). Furthermore, areas on the map are for informational purposes only as classified and delineated in subsection (a.), above.

CITY OF PARAMOUNT

May 13, 1988

Los Angeles County Department
of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460
Attention: Mike Mohajer

SUBJECT: Comments regarding Draft Environmental Impact Report for the Draft Los Angeles County Hazardous Waste Management Plan (SCH #87122312)

Dear Mr. Mohajer,

The City of Paramount has reviewed the Draft Environmental Impact Report (DEIR) for the Los Angeles County Hazardous Waste Management Plan (CoHWMP).

The City is in agreement with the primary goals of the Plan. However, with respect to the criteria for siting new hazardous waste management facilities, we note the following passage:

> "The State of California requires by law that new hazardous waste disposal facilities be at least 2,000 feet from any permanent place of residence or other sensitive land uses." (third paragraph, Page A-21, DEIR).

The City recognizes that the Plan is to serve as a guide for potential new hazardous waste facilities, and does not identify specific sites for such facilities. We note, however, that the map contained in Volume I of the Plan (Figure 1) designates substantial areas within the City of Paramount as potentially suitable for off-site hazardous waste management facilities. Unfortunately, this map fails to recognize the existing residential development pattern of the community, and the fact that there is no site within the City which could satisfy this criterion, due to the close proximity of residential dwelling units within 2,000 feet.

16400 COLORADO AVENUE • PARAMOUNT, CALIFORNIA 90723-5091 • (213) 531-3503

The Plan (and Figure 1) should reflect the constraints imposed by existing residential development patterns within the City of Paramount. Accordingly, the City requests that the areas designated as potentially suitable sites within the City of Paramount be removed from Figure 1.

Further information regarding this letter may be obtained by contacting the undersigned at (213) 531-3503, extension 315.

CITY OF PARAMOUNT

Daniel E. Keen, AICP
Community Development Manager

14. RESPONSE TO CITY OF PARAMOUNT (LETTER OF MAY 13, 1988)

The CoHWMP was amended, at the direction of the State Department of Health Services, to better identify general geographical areas which could potentially be suitable for off-site hazardous waste management facilities in Los Angeles County. The Plan was also amended to include a discussion and the methodology used to identify the areas. It should be noted that the map of general geographical areas identified is illustrative in nature and is to assure facility consistency with the approved County Hazardous Waste Management Plan. The map, Figure 6-1, Volume II, CoHWMP, may, but is not required to, be used by the County or the cities as a tool to designate lands for future rezoning to accommodate the siting of hazardous waste management facilities. Furthermore, the areas selected in Figure 6-1, Volume II, CoHWMP, still need to be subjected to a careful evaluation should a proponent be interested in siting an off-site facility in the identified areas. In addition, the facility must have a Finding of Conformance with the CoHWMP including consistency with the CoHWMP siting criteria, a site-specific risk assessment as well as environmental evaluation pursuant to CEQA. The standards for a risk assessment (i.e., scope, methodology and level of risk) shall be based on standards generally applied on a Statewide and regional basis by the U.S. EPA, SDOHS and local air quality management district.

The 2,000-foot buffer zone specified in the Siting Criteria applies only to hazardous waste land disposal facilities/residuals repositories.

Figure 6-1 does not identify any sites for residuals respositories in the cities or County unincorporated areas.

ON-WIDE
ALL AMERICA CITY
AWARD WINNER

CITY OF SANTA FE SPRINGS

CITY HALL, 11710 TELEGRAPH ROAD 90670-3658 - P.O. BOX 2120 - (213) 868-0511

May 15, 1988

Los Angeles County Dept of Public Works
Waste Management Division
Post Office Box 1460
Alhambra, California 91802-1460

Attention: Mr. Mike Mohajer

Gentlemen:

Subject: Draft Environmental Impact Report (EIR)
for the Los Angeles County Hazardous Waste Management Plan

The above-referenced Draft EIR has been reviewed and the following concerns and comments are hereby submitted for your consideration:

1. Regarding Section 6.4.1 (page 6-13) the generalization is made that impacts from modern hazardous waste treatment facilities typically resemble those found at industrial facilities engaged in manufacturing or petrochemical processing. This statement is felt to be inaccurate and misleading. Depending on the nature, size, etc., of such facilities, the impacts could be substantially greater and significant. This is especially true where industries engaged in manufacturing are generallly light in nature and located in quality office/industrial parks. Many such quality office/industrial parks are located in the City of Santa Fe Springs and other locations falling within those general areas indicated as potentially suitable for off-site hazardous waste management facilities. (Figure 5-9, CoHWMP)

2. Regarding Section 6.4.1, Subsection G (page 6-31, last paragraph) it is implied that substantial alteration of the present or planned land use of areas where hazardous waste facilities are sited is not anticipated since they will be located in industrial areas as indicated on the map. (Figures 5-9, CoHWMP) Again and for the reasons cited in 1 aobve, such facilities potentially may result in substantial alteration of the present or planned land use of areas shown as potentially suitable for such facilities through economic, aesthetic, air quality (including odors), transportation/circulation and other impacts that may be significant.

3. Regarding Section 6.4.1, Subsection H (page 6-33) the statement is made that implementation of the CoHWMP is not anticipated to result in an increased risk of upset from explosion or the release of hazardous substances nor the creation of any potential health hazard which cannot be effectively prevented or mitigmted. This statement is felt to be inappropriate at this time and misleading in that the siting of hazardous waste facilities is more likely than not to result in some increased risk of upset and the creation of potential health hazards attendant therewith which cannot be effectively prevented or mitigated. The extent of such increased risk and/or potential health hazards is dependent on the nature, size, location, etc., of the facility proposed and one cannot speculate at this time as to what these are anticipated to be; such determination must await the site specific evaluation of environmental impacts.

4. Regarding Section 6.4.1, Subsection L (Page 6-35) the statement is again made that aesthetic impacts are not anticipated and it is implied that this is because hazardous waste facilities will be located in industrial zones where they are compatible with surrounding buildings. For the same reasons set forth in 1 and 3 above, it is felt this statement is inaccurate, inappropriate and misleading. The fact that such facilities are located in industrial zones does not assure they will be aesthetically or otherwise compatible with srrounding buildings and the business community.

Your thoughtful consideration of the comments noted will be greatly appreciated. Please advise if you have any questions regarding this matter.

Very truly yours,

George Beaty

GEORGE BEATY
Director of Environmental Management

GB/pb

cc: Donald R. Powell, City Manager

15. RESPONSE TO CITY OF SANTA FE SPRINGS (LETTER OF MAY 15, 1988)

The major thrust of comments in the City's letter appear to be related to a lack of site-specific impact analysis and mitigation measures. CEQA Guideline provisions for Tiered EIR's allow the specificity and depth of environmental evaluation to be less for CoHWMP's than for individual project proposals. The scope and content of CEQA documents for CoHWMP's is limited to general, overall impacts of various types of facilities.

a. This comment does not take into consideration the full context of the paragraph from which the comment is derived. The paragraph states that "All hazardous waste facilities, by their very nature, can potentially produce adverse environmental impacts. While the specific impacts may vary as a function of the facility's specific characteristics and actual wastes to be treated, impacts from modern hazardous waste treatment facilities typically resemble those found at industrial facilities engaged in manufacturing or petrochemical processing. In some instances, federal and State regulations require more stringent pollution controls at hazardous waste treatment facilities than at industrial plants where many of the wastes are generated".

   It is felt that this statement is accurate. The reference to industrial facilities was not intended to equate to "light manufacturing", but rather to those manufacturing plants which actually produce the hazardous waste which is then managed in a hazardous waste management facility.

b. The map identifying the general geographical area for potentially suitable off-site hazardous waste management facilities is for illustrative purposes only and may, but is not required to, be used by the local

jurisdiction as a tool to designate lands for the future rezoning to accommodate the siting of off-site hazardous waste management facilities. The rezoning responsibility of any area within a jurisdiction remains with the governing body of that jurisdiction. All of the environmental safeguards specified in the CoHWMP are designed to eliminate potential environmental impacts or mitigate them to an acceptable level.

c. The preceeding text in Section 6.4.1 H discusses in more depth the issue raised by this comment. It is agreed that the extent of risks and/or potential health hazards is dependent on the nature, size, location, etc., of the facility proposed. The DEIR emphasizes the necessity and importance of site-specific evaluation of environmental impacts.

d. The basis for the statement that aesthetic impacts are "not anticipated" recognizes that proposals for site-specific hazardous waste facilities must undergo the in-depth environmental assessment, evaluation and documentation required by CEQA, as well as a site-specific siting assessment and permitting processing including a Conditional Use Permit which may specify conditions relative to prevention of impacts on community aesthetics.

CITY OF CULVER CITY
9770 CULVER BOULEVARD • P.O. BOX 507
CULVER CITY, CALIFORNIA 90230-0507

May 16, 1988

HAND DELIVERED ON MAY 16, 1988
TO LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
WASTE MANAGEMENT DIVISION
900 S. FREEMONT AVENUE
ALHAMBRA, CA 91802
(ATTENTION: MIKE MOHAJER)

Los Angeles County
Department Of Public Works
Waste Management Division
P. O. Box 1460
Alhambra, CA 91802-1460

ATTENTION: Mr. Mike Mohajer

Dear Mr. Mohajer:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the Draft Los Angeles County Hazardous Waste Management Plan. We have reviewed the DEIR and offer the following comments:

1. The DEIR is inadequate in several areas. California Environmental Quality Act (CEQA) requires that each EIR contain a brief summary of the proposed project and its consequences. Specifically, the summary must identify each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; areas of controversy known to the lead agency, including issues raised by agencies and the public; and issues to be resolved, including the choice among alternatives and whether or not how to mitigate the significant effects (Guidelines Section 15123). The summary section in the County Hazardous Waste Management Plan (CoHWMP) DEIR only makes a generalized statement that the CoHWMP is not seen as having any adverse effects upon human health or the environment. This statement would be acceptable if in the body of the DEIR it was stated that a particular impact is too speculative for evaluation and discussion of the impact terminated. However, impacts are discussed and in some cases mitigation measures are suggested. The summary should reflect this.

   The DEIR does not discuss indirect impacts of the CoHWMP or potential cumulative impacts of the CoHWMP as required by CEQA (Guidelines Sections 15126 and 15130).

Finally the DEIR does not adequately discuss alternatives to the CoHWMP. A DEIR must describe a range of reasonable alternatives that could feasibly attain the project's basic objectives, and evaluate the comparative merits of each alternative. The alternative to the CoHWMP that should be analyzed is the preparation of a hazardous waste element of the County Solid Waste Management Plan (Guidelines Section 15184).

2. Chapter 6, the Environmental Impact Analysis/Mitigation Measures section of the DEIR tends to be biased toward beneficial effects of the CoHWMP and glosses over negative impacts by stating that the siting criteria will mitigate any negative impacts. It is stated on Page 6-4 that waste transfer and storage facilities (distinguished primarily by its storage tanks and surrounded by protective dikes) would be "visually compatible with their surroundings". How can such a statement be made when a specific site is not known? The DEIR should state that there may be visual impacts, list possible ways to mitigate them, and then state that site specific EIR's will more thoroughly analyze the impacts. Three full pages of this section of the DEIR state how the CoHWMP will be beneficial to the environment. They are conclusory statements unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind.

3. Section 6.4.1, Page 6-13, states that "impacts from modern hazardous waste treatment facilities typically resemble those found at industrial facilities engaged in manufacturing or petrochemical processing". In State and Federal law, regulations regarding transfer, storage and disposal facilities (TSDF's) are substantially different from those concerning "generators" of hazardous wastes. If impacts are so similar, why are they not regulated by the same laws?

4. Section 6.4.1(A), Earth, does not adequately discuss potential impacts or mitigation measures. Specific mitigation measures outlined in the CoHWMP, Siting Criteria, are only referenced. This document, DEIR is supposed to be the document that lists the possible mitigation measures and analyzes their effectiveness.

   The one mitigation measure mentioned in this section refers to possible impacts resulting from movement of earth along fault zones. The wording of the mitigation measure in the DEIR is different than that in the CoHWMP. Specifically, the DEIR indicates that <u>all</u> facilities must prepare a seismic activity evaluation. The CoHWMP should also state this.

   We believe the Air section of the DEIR to be adequate. The other sections of the DEIR should be modeled after this section.

5. Section 6.4.1(C), Water, indicates that "hazardous waste management facilities can contaminate water quality if improperly sited, designed and maintained. However, the siting criteria have specific guidelines to protect surface and groundwater supplies by requiring that all facilities be constructed in areas posing minimal threats". The specific criteria being referred to should be provided in the DEIR. The criteria proposed does not limit siting to adequately protect the groundwater. The proposed five foot (5') separation of wastes from underlying groundwater provides an insufficient buffer to protect the underlying groundwater from contamination.

   The use of an "adopted general, regional or State plan" to determine whether the proposed residuals repository or other hazardous waste facility site is within a known or suspected supply of principal recharge to a regional aquifer is not reliable enough to protect against widespread contamination of the water supply. Use of a more reliable indicia should be mandatory, such as a site specific geological analysis geared to ascertain the probability of a recharge area.

   The siting criteria does not provide adequate protection against vertical percolation of pollutants to the groundwater, nor early opportunities for detection and control of pollutant releases. Use of reliable engineering safety criteria and current technological design features geared to handling of hazardous and extremely hazardous waste should be mandatory. The proposed criteria does not provide uniform minimum standards. Rather, it establishes a standard for structural design features "common to other types of industrial facilities".

6. Section 6.4.1(D), Plant and Animal Life. The siting criteria should be listed in the DEIR as potential mitigation measures. However, the use of an "adopted general, regional and State plan" to determine whether the proposed hazardous waste facility site is within a current wetlands area is not reliable enough to protect against contamination of this scarce natural resource. Use of more reliable indicia should be mandatory, such as a site specific analysis.

   Allowing the siting of hazardous waste facilities within a known wetlands area simply because the local government's land use planning or zoning indicates industrial usage does not protect against loss of the resource, as the County's plan should provide greater safeguards of these regional resources.

   Siting a hazardous waste facility on condition that "wildlife resources can be maintained and enhanced in a portion of the site, or preserved elsewhere in the area" should not be approved until data accumulated shows that a reduced habitat or a habitat that has been relocated can be successful.

The State guidelines do not permit siting of hazardous waste facilities in habitats of threatened and endangered species. The CoHWMP criteria provides insufficient protection of these resources, and should not fall below the State's minimum standards.

7. Section 6.4.1(G), Land Use, indicates that hazardous waste facilities should strive to locate in "industrial, commercial or specially zoned lands to minimize the risks associated with the transport and disposal of hazardous wastes". The "commercial" zones should not be included in the plan as permissible sites for facilities without further qualification. For example, retail commercial zones are clearly inappropriate for hazardous waste facilities, while commercial manufacturing may or may not be appropriate. Potential impacts from locating in these areas should be discussed.

8. Section 6.4.1(H), Risk of Upset/Hazards to Human Health, states that "setbacks may be required, though the burden of justifying the distance should lie with the host community, based on studies and/or proposed land uses". Relying solely on the host community to provide buffer zones may lead to siting decisions which impose severe environmental risks to the jurisdictions immediately adjacent to the facility. This is not an adequate mitigation measure and potential impacts should be discussed.

   A minimum Countywide buffer zone should be applied. This will preclude one jurisdiction from permitting a hazardous waste facility directly at its boundary with an adjoining jurisdiction, and thereby insure at least some measure of protection to that adjoining jurisdiction.

9. Section 6.4.1(L), Aesthetics, indicates that hazardous waste facilities are to be located in industrial zones where they are compatible with surrounding buildings is, again, a conclusory statement with no data to justify such a statement. This is not an adequate mitigation measure and should be removed from the DEIR.

Thank you again for the opportunity to comment on the CoHWMP DEIR. Should have any questions regarding these comments, please call Ann Larson, Associate Planner, at 213/202-5777.

Sincerely,

Jay B. Cunningham
City Planner

JBC:AL:ee

Copy: Los Angeles Projects File
Ann Larson, Associate Planner

16. RESPONSE TO CITY OF CULVER CITY (LETTER OF MAY 16, 1988)

a. The DEIR is a Tiered EIR and was prepared in accordance with the CEQA requirements as provided in the SDOHS Guidelines for Preparation of County Hazardous Waste Management Plans, dated June 30, 1987, and Environmental Review and Hazardous Waste Management Plans, dated November 24, 1987. It was the conclusion of the DEIR that there are no specific impacts which could not be minimized and/or reduced to an acceptable level.

The major thrust of comments in the City's letter appear to be related to a lack of site-specific impacts analysis and mitigation measures. CEQA Guidelines' provisions for Tiered EIR's allow the specificity and depth of environmental evaluation to be less for CoHWMP's than for individual project proposals. The scope and content of the CEQA documents for CoHWMP's is limited to general, overall impacts of various types of facilities.

The discussions of impacts and associated mitigation measures are designed to provide general information on facilities and site-specific impacts and mitigation measures are intended to be discussed at the time when such projects are proposed. The impacts and mitigation measures identified in the DEIR are not intended to be all inclusive nor designed to preclude site-specific environmental analysis. However, this Final EIR is not intended to be used by any project proponent to justify preparation of a Negative Declaration to avoid the full environmental assessment, documentation and disclosure required by CEQA.

b. Section 8.0 of the DEIR provides a discussion of alternatives to the CoHWMP. It should be recognized that the County had previously prepared a Draft Hazardous Waste Element for the County Solid Waste Management Plan dated June 1986. However, the County was informed by the SDOHS that such an element, if used in lieu of a CoHWMP, must comply with all of their guidelines for CoHWMP. Therefore, the element would have been identical to the CoHWMP for which the DEIR was prepared.

c. It is felt that the statement quoted from Section 6.4.1, page 6-13, is accurate. The reference to industrial facilities was intended to equate to those manufacturing plants which actually produce a hazardous waste which is then managed in a hazardous waste management facility. Comparison between hazardous waste management facilities and industrial plants was not intended to imply that the laws governing each is the same. However, the two are comparable in that similar processing technologies and equipment are employed to deal with hazardous substances of the same nature and impact.

d. The DEIR does not state that <u>all</u> facilities must prepare a seismic activity evaluation. However, the Siting Criteria prohibits development of off-site facilities within 200 feet of a known active fault, as stipulated on pages A-31 and 32 of the DEIR.

e. The Siting Criteria as shown in Appendix 6A, Volume II, CoHWMP, is in conformance with the SDOHS Guidelines for Preparation of County Hazardous Waste Management Plans, dated June 30, 1987. The allegation that the five-foot (5') separation of wastes from groundwater is inaccurate. The

criteria in the CoHWMP relative to "Depth to Groundwater" are mandated within existing provisions of Title 23, California Administrative Code, Chapter 3, Subchapter 15, Discharges of Waste to Land. Furthermore, additional measures and/or restrictions are also required by the SDOHS and the State Water Resources Control Board (SWRCB) to protect against water contamination. These are noted in the DEIR, pages 6-24 through 6-27.

f. The criteria for proximity to habitats of threatened and endangered species in the CoHWMP are those mandated for inclusion by the SDOHS.

g. The map identifying the general areas which might meet the Siting Criteria and could potentially be suitable for off-site hazardous waste management facilities is for illustrative purposes only and may, but is not required to, be used by local jurisdictions as a tool for future rezoning to accommodate the siting of off-site hazardous waste management facilities.

It should be noted that this map identifies commercial manufacturing zoned areas only if the local zoning would allow similar uses comparable to hazardous waste management facilities.

h. In reference to the City's comment (8.), it should be noted that the CoHWMP requires the project proponent for any off-site hazardous waste management facilities must apply and obtain a Finding of Conformance from the DPW to ensure that Siting Criteria will be applied uniformly throughout the County, including the incorporated cities. This requirement will ensure that distance/buffer provisions of the Siting Criteria are complied with.

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 FLAIR DRIVE, EL MONTE, CA 91731 (818) 572-6200

May 18, 1988

Mr. Mike Mohajer
Los Angeles County Department
of Public Works
P.O. Box 4089
Los Angeles, CA 90051

Dear Mr. Mohajer:

DEIR ON LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

Thank you for the opportunity to review the above-referenced environmental document. We reviewed it with reference to CEQA requirements and our response to your Notice of Preparation.

The air impact analysis contained in the DEIR meets our needs in terms of adequacy of analysis and mitigation. We note that Appendix A satisfies our concerns on subsequent detailed impact analysis and mitigation.

If you have any questions, please contact me at 818/572-2152.

Sincerely,

Brian W. Farris
Senior Air Quality Specialist
Planning Division

BWF:et

17. RESPONSE TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (LETTER OF MAY 18, 1988)

No response is necessary.

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR

GEORGE DEUKMEJIAN, Governor

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

Micheal Mohajer
Los Angeles County
Dept. of Public Works
900 S. Fremont Avenue
Alhambra, CA 91802-1460

May 18, 1988

Subject: Draft EIR - County Hazardous Waste Mgmt. Plan
SCH# 87122312

Dear Mr. Mohajer:

The State Clearinghouse submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is closed and the comments of the individual agency(ies) is(are) enclosed. Also, on the enclosed Notice of Completion, the Clearinghouse has checked which agencies have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the package is not in order, please notify the State Clearinghouse immediately. Your eight-digit State Clearinghouse number should be used so that we may reply promptly.

Please note that recent legislation requires that a responsible agency or other public agency shall only make substantive comments on a project which are within the area of the agency's expertise or which relate to activities which that agency must carry out or approve. (AB 2583, Ch. 1514, Stats. 1984.)

These comments are forwarded for your use in preparing your final EIR. If you need more information or clarification, we suggest you contact the commenting agency at your earliest convenience.

Please contact Keith Lee at 916/445-0613 if you have any questions regarding the environmental review process.

Sincerely,

David C. Nunenkamp
Chief
Office of Permit Assistance

cc: Resources Agency

Enclosures

State of California — The Resources Agency

Memorandum

To : 1. Projects Coordinator
Resources Agency

Date : May 9, 1988

2. County of Los Angeles
Department of Public Works
900 S. Fremont Avenue
Alhambra, CA 91802-1460

From : **Department of Fish and Game**

Subject : Draft Environmental Impact Report (DEIR): Los Angeles County Hazardous Waste Management Plan, SCH 87122312

We have reviewed the DEIR for the County Hazardous Waste Management Plan (HWMP) which establishes the policies and guidelines for planning and management of hazardous waste in Los Angeles County as mandated by California state statutes. The purpose of the HWMP is to establish criteria and guidelines and to identify general areas suitable for locating specific sites for hazardous waste management facilities. Such sites must meet the guidelines established in the HWMP in addition to completing a rigorous site-specific assessment and permitting process at local, state, and federal levels.

In examining environmental factors relative to the HWMP, we have the following specific concerns:

1. Wording on page 6-27 should be changed to indicate that the State Department of Health Services criteria protects plant and animal life in environmentally sensitive areas.

2. Development of hazardous waste management facilities should not be allowed within wetlands, riparian areas, or oak woodlands. Requirements of the HWMP should be modified to include these restrictions.

Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Fred Worthley, Regional Manager of Region 5, at 245 W. Broadway, Suite 350, Long Beach, CA 90802-4467 or by telephone at (213) 590-5113.

Pete Bontadelli
Director

State of California — Department of Health Services

Memorandum

To : Keith Lee
State Clearinghouse
Office of Planning and Research
1400 10th Street
Sacramento, CA 95814

Date : May 12, 1988

Subject: Los Angeles County Hazardous Waste Management Plan Draft EIR (SCH# 87122312)

From : Toxic Substances Control Division
714/744 P Street
P.O. Box 942732
Sacramento, CA 94234-7320
322-2822

The Alternative Technology Section, in conjunction with the Southern California Section of the Toxic Substances Control Division, has reviewed the draft Environmental Impact Report (EIR) for the draft County Hazardous Waste Management Plan (CHWMP). The Department is a responsible agency under the provisions of the California Environmental Quality Act (CEQA) and the final approving agency for the CHWMP developed by the County of Los Angeles pursuant to AB 2948 (Tanner, 1986).

In addition to the comments on the draft EIR presented below, the County will need to consider the comments which the Department provided in a letter dated May 3, 1988 concerning the draft CHWMP. In the event that certain comments should require a change in the scope of the final CHWMP, the County should reflect such changes in the scope of the final EIR as well.

I. Scope of a Tiered EIR

The final EIR should focus on the general impacts associated with adoption and implementation of the final CHWMP. As currently written, the draft EIR focuses on site specific impacts which can only be accurately assessed at the project specific level. As such, many of the conclusions reached from the site specific assessment were inappropriately used to justify the argument that the impacts created from implementation of the CHWMP will be reduced to a level of insignificance.

This level of assessment could potentially encourage a site specific project proponent futilely attempting to use the document to justify preparation of a negative declaration and avoid full environmental disclosure required by CEQA.

The final EIR should state that the discussions of impacts and associated mitigation measures are designed to provide general information on facilities and that site specific impacts and mitigation measures are intended to be discussed at the time when such projects are being proposed. The final

EIR should specify that the impacts and mitigation measures identified in the draft EIR are not intended to be all inclusive nor designed to preclude site specific environmental analysis.

Examples of certain sections of the draft EIR which need to be changed to clarify the above concerns are discussed below. Additional sections should be changed accordingly.

6.4.1 Impact Analysis/Mitigation Measures

A. EARTH

The third full paragraph on pages 6-15 states "The initial Study determined that adoption and implementation of the CoHWMP would not result in exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure or similar hazards". This sentence and accompanying support information is used out of context within the discussion of general impacts. This statement implies that the county has already assessed the likely impacts and appropriate mitigation measures associated with geologic hazards and that no further environmental assessment is necessary. Unless this is the case, this sentence should be deleted.

B. AIR

The second full paragraph on page 6-19 states "Overall, however, the impacts upon the community can be expected to be minimal, given modern emission control technologies and good management procedures are practiced". This statement is also out of context with the overall discussion of impacts and implies that the county has already assessed the likely impacts and appropriate mitigation measures associated with air quality and that no further environmental assessment is necessary. Unless this is the case, this sentence should be deleted.

II. Impact Analysis/Mitigation Measures

The siting criteria developed by the County are intended to be used in identifying areas or sites potentially suitable for the siting of facilities. While some criteria developed in response to State or Federal laws may lead to mitigation

of certain impacts through their application (e.g. 2000 foot buffer zone, 200 feet from an active earthquake, etc.), the use of the criteria as all inclusive mitigation measures for potential impacts created by adoption and implementation of the CHWMP is inappropriate.

The final EIR should specify that the siting criteria should not be viewed as all inclusive for the purpose of mitigating certain impacts created by either CHWMP implementation or site specific proposals. Further, the final EIR should consider the comments provided by the Department concerning siting criteria.

An example of a section of the draft EIR which needs to be changed to clarify the above concerns is discussed below. Additional sections should be changed accordingly.

6.4.1 Impact Analysis/Mitigation Measures

C. WATER

The statement at the top of page 6-25 that "... the siting criteria have specific guidelines to protect surface and groundwater supplies by requiring that all facilities be constructed in areas posing minimal threats" incorrectly implies that the siting criteria are all inclusive mitigation measures when, in fact, they are designed to assist in identifying areas or sites suitable for the siting of facilities from a land use perspective. While certain criteria developed by the Department concerning such locational considerations such as distances to residences, earthquake faults, wetlands, etc. may be factors limiting potential impacts in such areas, many of the criteria developed by the County may have no bearing on the issue of water quality from a siting standpoint. In such cases, the county should refer to the Department's comments concerning the criteria.

III. Environmental Setting

Since the CHWMP will be amending the county General Plan by designating general areas suitable for the siting of facilities, the discussion of environmental setting in the draft EIR should clearly identify the general areas within the county where facilities may be located. As such, the final EIR should reflect comments provided by the Department concerning the methodology used to arrive at the preferred areas.

IV. Alternatives

The statement in the draft EIR that off-site facilities will be developed if the CHWMP is implemented is misleading. This statement implies that the county and/or private industry will be developing facilities without support for such a statement.

The final EIR should be modified to state that implementation of the CHWMP will provide a planning framework for the siting of needed hazardous waste management facilities. In addition, the final EIR should state that impacts from such facilities will be addressed at the site specific project level, along with associated mitigation measures.

If you should have any questions regarding this matter, please contact Guenther Moskat, ATS Planning Unit, at (916) 324-1807 or Maria Gillette of the Department's Southern California Section Office at (213) 620-2380.

for David J. Leu, Ph.D., Chief
Alternative Technology Section

cc: Ted Rauh
Department of Health Services
Toxic Substances Control Division
Southern California Section
107 South Broadway, Room 7011
Los Angeles, CA 90012

Maria Gillette
Department of Health Services
Toxic Substances Control Division
Southern California Section
107 South Broadway, Room 7011
Los Angeles, CA 90012

DJL:RR:dd

Mail to: State Clearinghouse, 1400 Tenth Street, Room 121, Sacramento, CA 95814 — 916/445-0613

NOTICE OF COMPLETION AND ENVIRONMENTAL DOCUMENT TRANSMITTAL FORM

See NOTE below
SCH # 87122312

1. Project Title: Draft EIR - County Hazardous Waste Management Plan (CoHWMP)
2. Lead Agency: L.A. County Dept. of Public Works 3. Contact Person: Michael Mohajer or Al Hearne
3a. Street Address: 900 S. Fremont Avenue 3b. City: Alhambra
3c. County: Los Angeles 3d. Zip: 91802-1460 3e. Phone: (818) 458-3561
PROJECT LOCATION 4. County: Los Angeles 4a. City/Community: Entire County
4b. Assessor's Parcel No. N/A 4c. Section N/A Twp. N/A Range N/A
5a. Cross Streets: N/A 5b. For Rural, Nearest Community: N/A
6. Within 2 miles: a. State Hwy # N/A b. Airports N/A c. Railways N/A d. Waterways N/A

7. DOCUMENT TYPE		8. LOCAL ACTION TYPE	9. DEVELOPMENT TYPE N/A
CEQA		01. ___General Plan Update	01. ___Residential: Units_____ Acres_____
01. ___ NOP	06. ___ NDE	02. ___New Element	02. ___Office: Sq. Ft._____
02. ___Early Cons	07. X NOC	03. ___General Plan Amendment	Acres_____ Employees_____
03. ___Neg Dec	08. ___ NOD	04. ___Master Plan	03. ___Shopping/Commercial: Sq. Ft._____
04. X Draft EIR		05. ___Annexation	Acres_____ Employees_____
05. ___Supplement/Subsequent EIR (Prior SCH No.: _____)		06. ___Specific Plan	04. ___Industrial: Sq. Ft._____
		07. ___Community Plan	Acres_____ Employees_____
NEPA		08. ___Redevelopment	05. ___Water Facilities: MGD_____
09. ___NOI	11. ___Draft EIS	09. ___Rezone	06. ___Transportation: Type_____
10. ___FONSI	12. ___EA	10. ___Land Division (Subdivision, Parcel Map, Tract Map, etc.)	07. ___Mining: Mineral_____
OTHER		11. ___Use Permit	08. ___Power: Type_____ Watts_____
13. ___Joint Document		12. ___Waste Mgmt Plan	09. ___Waste Treatment: Type_____
14. ___Final Document		13. ___Cancel Ag Preserve	10. ___OCS Related
15. ___Other_____		14. X Other CoHWMP	11. ___Other:_____

16. TOTAL ACRES: N/A 17. TOTAL JOBS CREATED: N/A

18. PROJECT ISSUES DISCUSSED IN DOCUMENT			
01. X Aesthetic/Visual	08. ___Flooding/Drainage	15. ___Septic Systems	23. X Water Quality
02. ___Agricultural Land	09. X Geologic/Seismic	16. ___Sewer Capacity	24. ___Water Supply
03. X Air Quality	10. ___Jobs/Housing Balance	17. ___Social	25. ___Wetland/Riparian
04. X Archaeological/Historical	11. ___Minerals	18. X Soil Erosion	26. X Wildlife
05. ___Coastal Zone	12. X Noise	19. ___Solid Waste	27. X Growth Inducing
06. ___Economic	13. X Public Services	20. X Toxic/Hazardous	28. ___Incompatible Land Use
07. X Fire Hazard	14. ___Schools	21. X Traffic/Circulation	29. X Cumulative Effects
		22. X Vegetation	30. ___Other_____

19. FUNDING (Approx) Federal $_____ State $ Unknown to date Total $_____
20. PRESENT LAND USE AND ZONING: N/A

21. PROJECT DESCRIPTION: The purpose of the EIR is to provide public agencies, industry, and the public in general with information about the overall effects which adoption of the CoHWMP is likely to have environmentally and to enumerate ways in which potentially significant effects might be prevented or minimized. The CoHWMP establishes policies and guidelines for proper planning and management of hazardous waste on a County-wide basis.

CLEARINGHOUSE CONTACT: KEITH LEE
916-445-0613

#87122312

STATE REVIEW BEGAN: 4-4-88

DEPT REV TO AGENCY: 5-12

AGENCY REV TO SCH: 5-17

SCH COMPLIANCE : 5-19

*** Please return this form with any comments.

W/C N/C

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AQMD/APCD: 33 (Resources: 4,9)

18. RESPONSE TO STATE OFFICE OF PLANNING AND RESEARCH (LETTER OF MAY 18, 1988)

No response is necessary. However, it is noted that response to the Department of Fish and Game and the Department of Health Services letters referenced in this letter are included in response numbers 8 and 12, respectively.

COUNTY OF LOS ANGELES • DEPARTMENT OF HEALTH SERVICES

313 NORTH FIGUEROA STREET • LOS ANGELES, CALIFORNIA 90012 • (213) 974-8101

May 20, 1988

Los Angeles County Department of Public Works
Waste Management Division
P. O. Box 1460
Alhambra, CA 91802-1460

Attention Mike Mohajer

Dear Mr. Mohajer:

OFFICIAL REVIEW OF THE MARCH 1988 ENVIRONMENTAL IMPACT REPORT (SCH #87122312) FOR THE LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

This is in response to your March 31, 1988 letter requesting our review and comments on the subject report.

The Department's Bureau of Occupational Health and Radiation Management staff have reviewed the report and comment as follows:

The needs, policies, goals, recommendations, implementation schedule, and funding source stated in the Los Angeles County Hazardous Waste Management Plan (CoHWMP) call for the enhancement of new and existing programs to protect the public's health and the environment County-wide.

Approval and/or adoption of CoHWMP and implementation of the plan are expected to result in a favorable environmental impact. We point out that implementation will depend on the capabilities of the Departments included in the CoHWMP.

This Department draws special attention to Los Angeles County Department of Health Services (DHS) emergency response involvements mentioned in Policy 8, Chapter 10, Recommendation 47, of the CoHWMP with regard to emergency response capabilities by DHS. It calls for DHS Code 3 emergency response capability, but does not take into account current limited available staff. A modification of Recommendation 47 would be more consistent with Policy 8 which calls for enhancement of existing emergency response capabilities.

Our suggestion is to change the language of Recommendation 47 to read as follows: "County to sponsor and cities to support and promote State Legislation to allow for the use of red lights and sirens on Health Services vehicles which have been specifically designated by responding agencies as Hazardous Materials Emergency Response Vehicles, as opposed to the presently used amber light. Funding should be provided to allow adequate training of responders. Funding should also be provided for a sufficient number of staff and fully equipped vehicles at appropriate locations to respond to incidents as required in a more timely manner."

If this recommendation is carried out as reworded, DHS' Hazardous Waste emergency responses will be fully effective at less than half the currently required time.

If you have any questions or need additional specific details regarding these comments, please contact Anastacio Medina, Chief, Hazardous Materials Control Program at (213) 744-3223.

Very truly yours,

Robert C. Gates
Director of Health Services

RCG:nm
804:011

19. RESPONSE TO COUNTY OF LOS ANGELES, DEPARTMENT OF HEALTH SERVICES (LETTER OF MAY 20, 1988)

With respect to the comment regarding amending Recommendation 47 in the Draft CoHWMP to provide additonal funding, it should be noted that Recommendation 5 in the CoHWMP focuses on counties and cities making every effort to provide for sufficient resources/manpower to better enforce existing laws/regulations. These efforts most assuredly would include, where appropriate, provisions to promote and support legislation to provide adequate funding wherever needed.

2.3 - ORAL COMMENTS AND RESPONSES

1. - PUBLIC HEARING OF APRIL 13, 1988, LANCASTER

Gladys Cunningham
44744 North Fern Avenue, Lancaster

Summary of Comments:

Felt that environmental impacts and the health and safety of human beings were not being considered or addressed.

Response:

The Draft Environmental Impact Report (DEIR) is part of the Tiered EIR and is not intended to be used by any project proponent to justify preparation of a Negative Declaration to avoid the full environmental assessment. The discussions of impacts and associated mitigation measures in the DEIR are designed to provide general information on the various types/categories of hazardous waste management facilities. The impacts and mitigation measures identified are not intended to be all inclusive nor designed to preclude site-specific environmental evaluation. At the time site-specific projects are proposed full environment analysis and disclosure, including a risk assessment of the potentially significant impacts on the health and safety of human beings will be required.

2. - PUBLIC HEARING OF APRIL 20, 1988, SANTA CLARITA

Ginger Bremberg, Councilwoman
City of Glendale

Summary of Comments:

Enough time has not been allocated for proper review of the EIR.

Response:

Provisions of the California Environmental Quality Act (CEQA) Guidelines, Section 15087(c), specify that review periods for DEIRs shall not be less than 30 days. The review period allowed for this DEIR was 45 days.

3. - PUBLIC HEARING OF APRIL 20, 1988, SANTA CLARITA

Christopher Gray
City of Glendale Fire Department

Summary of Comments:

Commented that the EIR provides only a brief qualitative analysis to point out the environmental effects. Fails to explain how to mitigate any environmental effects, and impact analysis to avoid significant waste related problems. EIR considers reasonable to adopt criteria calling for a seismic structural facility design that would resist earthquake ground motion having a low to moderate probability of occurring during the economic life of a facility. Should follow seismic design criteria that would withstand earthquake ground motion having a high probability of occurring.

Response:

the DEIR is a Tiered EIR and was prepared in accordance with the CEQA requirements as provided in the SDOHS' Guidelines for Preparation of County Hazardous Waste Management Plans, dated June 30, 1987, and Environmental Review and Hazardous Waste Management Plans, dated November 24, 1987.

CEQA Guidelines' provisions for Tiered EIRs allow the specificity and depth of environmental evaluation to be less for the CoHWMPs than for individual project proposals. The scope and content of the CEQA documents for the CoHWMPs is limited to general, overall impacts of various types of facilities.

The discussions of impacts and associated mitigation measures are designed to provide general information on facilities and site-specific impacts and mitigation measures are intended to be discussed at the time when such projects are proposed. The impacts and mitigation measures identified in the DEIR are not intended to be all inclusive nor designed to preclude site-specific environmental analysis. However, this Final EIR is not intended to be used by any project proponent to justify preparation of a Negative Declaration to avoid the full environmental assessment, documentation and disclosure required by CEQA.

The Siting Criteria (DEIR Pages A-31 through A-32) addresses "proximity to active or potentially active faults/sesismic". The criteria has been mandated by the SDOHS for inclusion in the CoHWMP. It should also be noted that as a part of the facility permitting process, all facilities must be designed for all the seismic loads as mandated by Federal, State/County and local jurisdictions.

PART II

DRAFT ENVIRONMENTAL

IMPACT REPORT

This Report Constitutes The
Draft Environmental Impact Report
For The

COUNTY OF LOS ANGELES
HAZARDOUS WASTE MANAGEMENT PLAN

County of Los Angeles
Department of Public Works
900 S. Fremont Avenue
Alhambra, California 91802

March 1988

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1.0 - SUMMARY

The Draft Environmental Impact Report (EIR) for the Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared pursuant to requirements of the California Environmental Quality Act (CEQA). This Act requires all agencies, including local agencies of the State of California, to consider environmental issues in their decision-making process. The CoHWMP is a discretionary action and subject to the CEQA requirements.

The CoHWMP was prepared pursuant to the requirements of Article 3.5, Chapter 6.5, Division 20, of the California Health and Safety Code (Chapter 1504 of the State Statutes of 1986, AB 2948 - Tanner, and Chapter 1167 of the State Statutes of 1967, SB 477 - Greene), and in accordance with the State Department of Health Services (SDOHS) Guidelines for the Preparation of Hazardous Waste Management Plans dated June 30, 1987.

On March 10, 1987, the Los Angeles County Board of Supervisors (Board) formally elected to prepare the CoHWMP in lieu of the Hazardous Waste Management Element of the County Solid Waste Management Plan, as required by the State law, Chapter 1504 of the State Statutes of 1986 cited above.

On May 27, 1987, the Board established the County Hazardous Waste Management Advisory Committee (CoHWMAC) to oversee the development of the CoHWMP by the Los Angeles County Department of Public Works (DPW). The preparation of the Draft CoHWMP began on July 15, 1987, and was completed by December 1987, as mandated by the State law. The Draft CoHWMP, dated December 1987, consists of three volumes, Volume I - The Plan, Volume II - Technical Supplement, and Volume III - Appendix.

On January 5, 1988, the Board authorized release of the Draft CoHWMP for a 90-day review and comment period. The Draft CoHWMP was delivered to the SDOHS on January 7, 1988, and distributed to all 85 incorporated cities, State, regional and local agencies, industries and citizens during the first part of January 1988.

The Final CoHWMP, incorporating comments received from the SDOHS, the 85 cities, governmental agencies, industry and the general public, will then be submitted to the cities and the Board for formal approval. The approved Final CoHWMP must then be submitted to the SDOHS on or prior to October 1, 1988.

The EIR provides information about the overall environmental effects the CoHWMP is likely to have, along with mitigation measures for these effects. Information on the overall potentially beneficial and adverse effects of the CoHWMP in Los Angeles County is also provided.

Achievement of the Plan's goals and objectives will result in an environmentally sound and expeditious system for managing hazardous waste County-wide. This will ensure the maintenance of human health, the environment and economic growth at high standards.

The CoHWMP is not seen as having any adverse effects upon the human health or the environment. As previously stated, the CoHWMP will greatly benefit both areas. However, any specific proposal for a hazardous waste management facility must undergo a rigorous site-specific health risk assessment and develop a separate environmental assessment and documentation pursuant to CEQA requirements. The health risk assessment and environmental assessment and documentation must describe any site-specific risks and/or adverse effects and all risks to the human health and the environment along with mitigation measures to reduce or eliminate these risks or effects. The proposal must be consistent

with the Final CoHWMP, including the siting criteria, permitting, transportation and all other pertinent regulatory requirements.

As previously mentioned, the CoHWMP has been prepared pursuant to legislation which mandated its development. The CoHWMP does differ from the SDOHS Guidelines in the Siting Criteria Section - Appendix 6A. The CoHWMP identifies siting criteria in addition to those contained in the SDOHS Guidelines. The additional criteria were included to identify additional areas of concern to ensure that adequate mitigation measures can be provided. These additional criteria are not intended to prohibit the siting of new hazardous waste management facilities or impair the expansion of existing ones. Also, they are not to be used for exclusionary purposes.

The EIR is not all inclusive. Several documents are included by reference as an integral part of the EIR. The discussion is kept brief as CEQA requirements allow the specificity and depth of environmental evaluation to be less for county hazardous waste management plans.

2.0 - PROJECT DESCRIPTION

2.1 - Location

The County of Los Angeles Hazardous Waste Management Plan (CoHWMP) covers the entire County of Los Angeles, an area of 4,083 square miles. The County is bounded by Ventura County on the west, Kern County on the north, San Bernardino County on the east, Orange County on the northeast and the Pacific Ocean on the west and south. County jurisdiction also includes Catalina and San Clemente Islands.

Los Angeles County is the hub of the Southern California region, defined for the purpose of this report as the six-county area encompassed by the Southern California Association of Governments (SCAG). The SCAG planning region covers a total of 38,528 square miles and includes the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura. (Map 2-1 indicates the location of Los Angeles County within the SCAG region). Los Angeles County, with a projected population of 7.5 million, has approximately 65 percent of the population and 11 percent of the area of the SCAG region. The County contains 85 incorporated cities which together form an area of approximately 1,100 square miles. Unincorporated area is over 3,000 square miles.

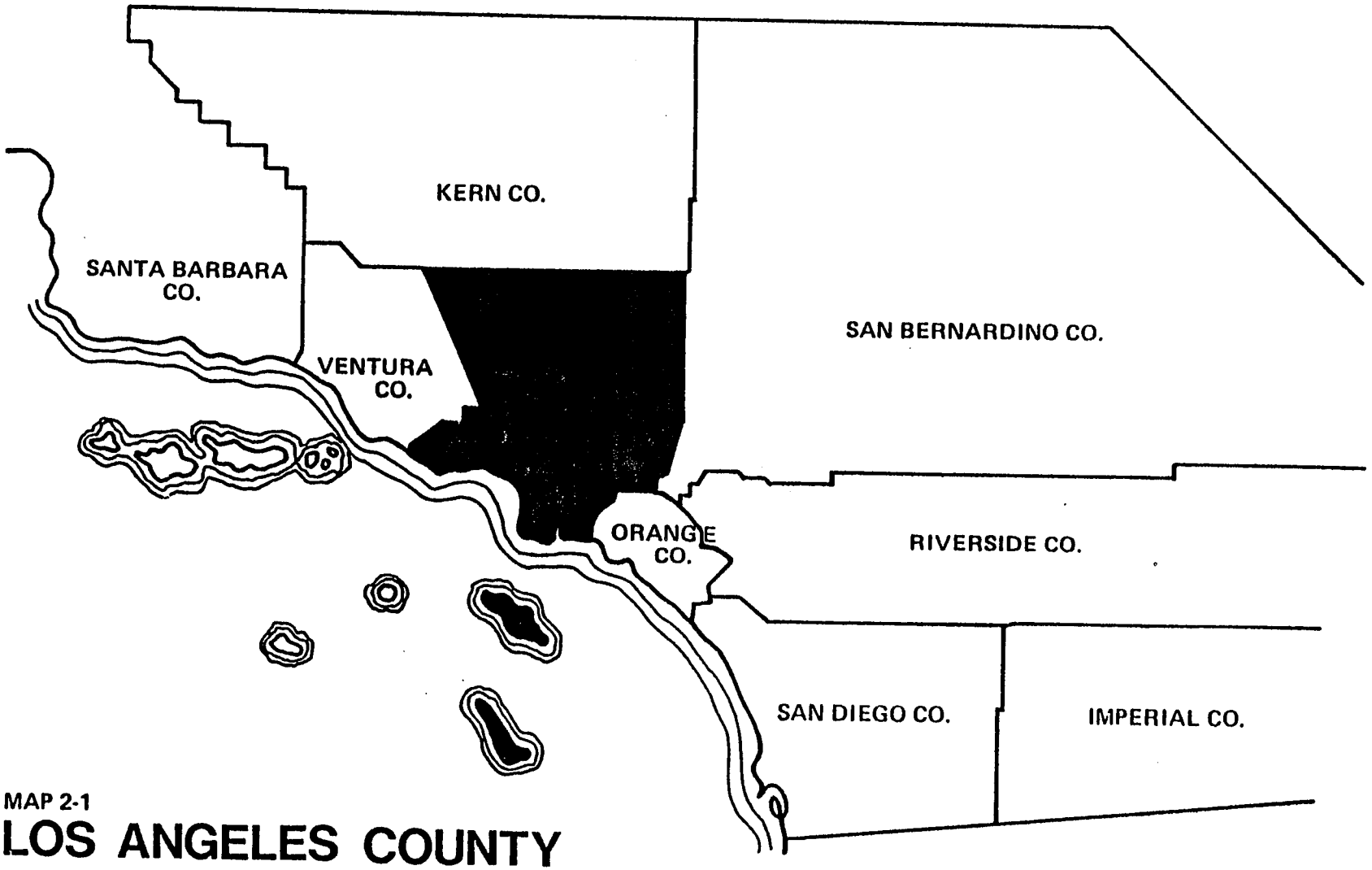
2.2 - Objectives

The objectives of the CoHWMP as delineated in the plan are as follows:

1. To protect the health, welfare and safety of all citizens;

2. To protect significant environmental resources, particularly our water and air quality;

3. To ensure that the generation of hazardous waste in the County



MAP 2-1

LOS ANGELES COUNTY

is reduced to the maximum extent feasible;

4. To ensure that all hazardous wastes generated in this County are recycled and/or treated to the maximum extent possible and that the need for land disposal of untreated hazardous waste is completely eliminated by May 1990 as mandated by State law;

5. To ensure that safe, effective and economical facilities for the management of hazardous waste are available when they are needed and that these facilities are operated in a manner which protects public health and the environment;

6. To make information regarding hazardous waste management widely available to the public so that informed decisions can be made; and

7. To actively seek and promote public involvement/participation in the planning, siting and permitting of hazardous waste management facilities.

2.3 - Description

The CoHWMP planning effort began when the Los Angeles County Board of Supervisors, on March 10, 1987, formally elected to prepare the CoHWMP in lieu of a Hazardous Waste Element of the County Solid Waste Management Plan. The CoHWMP was developed pursuant to the requirements of Article 3.5, Chapter 6.5, Division 20 of the California Health and Safety Code (AB 2948, Tanner and SB 477, Greene), and the State Department of Health Services' Guidelines for the Preparation of Hazardous Waste Management Plans (June 30, 1987).

As required by the law, the CoHWMP includes goals, objectives and policies for the siting of off-site hazardous waste facilities and the general management of

hazardous waste through the year 2005. The objectives have been cited in Section 2.2 herein. The policies establish the framework for the County's overall hazardous waste management strategy (refer to CoHWMP, page 5, Volume I - The PLAN). The CoHWMP also contains goals and sixty-nine (69) specific action recommendations to aid in achieving the goals. The remaining volumes of the Plan contain background to support the Plan.

The CoHWMP also includes the following mandated elements:

1. An analysis of the hazardous waste stream generated in the county, including an accounting of the volumes of hazardous waste produced in the county, by type of waste, and estimates of the expected rates of hazardous waste production until the year 2005, by type of waste.

2. A description of the existing hazardous waste facilities which treat, handle, recycle and dispose of the hazardous wastes produced in the county, including a determination of the existing capacity of each facility.

3. An analysis of the potential in the county for recycling hazardous waste and for reducing the volume and hazard of hazardous waste at the source of generation.

4. A consideration of the need to manage the small volumes of hazardous waste produced by businesses and households.

5. A determination of the need for additional hazardous waste facilities to properly manage the volumes of hazardous waste currently produced or that are expected to be produced during the planning period.

6. Siting criteria for off-site hazardous waste management facilities as

well as identification of general geographical areas within the cities and unincorporated areas where the criteria might be applicable. These criteria may be applied by developers, regulators and the community to provide a uniform set of constraints, standards and guidelines to evaluate the siting and permitting of proposed facilities within a rational decision making process.

In addition, SB 477 allows local land use jurisdictions to establish more stringent planning requirements or siting criteria to protect the public health, safety or welfare.

It should be noted that the CoHWMP does not identify any specific sites for hazardous waste management facilities. It does identify general areas suitable for locating these facilities.

These criteria are adopted from the Southern California Hazardous Waste Management Project (SCHWMP) and modified to comply with the State Department of Health Services Guidelines for preparation of hazardous waste management plans pursuant to requirements of State law (AB 2948, Tanner).

7. An implementation plan and time schedule, through the year 2005, for actions to achieve the goals of the CoHWMP. The implementation schedule delineates lead, major support and advisory responsibilities/roles for county government, cities with the county and private industry for each of these actions. The possible funding source to carry out these actions is also identified.

In addition to the legally required elements of the plan described in this section, the CoHWMP also includes a number of other elements. These are

elements recommended in the State "Guidelines for the Preparation of Hazardous Waste Management Plans, June 30, 1987" or as determined necessary for inclusion to provide for the proper management of hazardous waste. The additional elements are as follows:

1. An element establishing waste minimization including source reduction, process modification, substitution, material recovery and recycling, and source segregation as a primary goal of the Plan.

2. An element describing the permitting process for application, review and approval of a series of both ministerial and discretionary hazardous waste facility permits by federal, state and local agencies and including provisions for public involvement in the process;

3. An overview of the major statutory laws and regulations governing the management of hazardous waste and a summary of the regulatory programs of federal, state and local (county/city) government agencies in surveillance and enforcement of these hazardous waste management regulations;

4. An identification of the role/responsibility of federal, state and local (county/city) government agencies for emergency response to hazardous waste/material incidents, and an enumeration of existing emergency response plans and programs;

5. An element describing provisions for public education and participation including resources and mechanisms for public information, education, community relations, community involvement and public participation to ensure that the public has an opportunity to participate knowledgeably in decisions on issues of hazardous waste

management;

6. An element describing the county's hazardous waste transportation system including applicable regulations, current county system, factors producing changes in the system and risk assessment factors and criteria for determining safe transportation routing, and;

7. A listing of inactive and/or abandoned hazardous waste sites/facilities in the county, discussions regarding management of these sites and regulations/guidelines for proper cleanup and/or closure of hazardous waste sites/facilities.

8. An overview of technologies for the management and disposal of hazardous waste.

9. A description of the emergency response requirements, roles and plans for the prevention and mitigation of hazardous waste/material incidents.

3.0 - METHODOLOGY

3.1 - Purpose of a County Hazardous Waste Management Plan EIR

The California Environmental Quality Act (CEQA) requires all agencies, including local agencies of the State of California, to consider environmental issues in their decision-making process. CEQA applies to all discretionary projects. Projects are defined as the whole of an action which has potential for resulting in physical change in the environment, directly or ultimately. (CEQA Guidelines Section 15378). The definition includes an enactment or amendment of zoning ordinances, and the adoption and amendment of general plans or elements thereof [CEQA Guidelines Section 15378(a)(1)]. The CoHWMP appears to fall within this definition.

Necessary environmental documentation is required prior to adoption of the CoHWMP. The Initial Study of Environmental Factors has concluded that adoption of the CoHWMP may have a significant effect on the environment, and an Environmental Impact Report (EIR) is required.

The purpose of this EIR is to provide public agencies and the public in general with information about the overall effects which the adoption of this plan is likely to have on the environment; to list ways in which the significant effects might be minimized; and to indicate the alternatives to this project (i.e., plan).

This EIR was prepared in accordance with state and county guidelines for the implementation of CEQA to be an informational document and is intended to provide a full disclosure of environmental effects. An environmental evaluation need not be exhaustive, nor is it the intent of an EIR to resolve disagreement among experts regarding technical matters.

The EIR is part of a tiered EIR approach to assess the overall impacts of hazardous waste facility siting and management of hazardous waste. CEQA environmental assessment/documentation is also required for Regional and State hazardous waste management plans and, as has been noted, for individual project proposals. The State CEQA Guidelines allows the specificity and depth of environmental evaluation to be less for plans than for individual project proposals for site-specific hazardous waste management facilities.

It must be noted that CEQA requires that individual project proposals for new hazardous waste facilities or expansion of existing facilities must undergo rigorous site-specific environmental assessment and documentation. Thus, the intent of this EIR is to identify potential problem areas and to set forth the appropriate standards and/or mitigation measures. No specific sites are identified in the CoHWMP; however, general areas which are likely to conform to the siting criteria are identified so that the selection of sites may focus on these areas.

3.2 - Environmental Analysis

The Initial Study of Environmental Factors - Los Angeles County Hazardous Waste Management Plan identified fourteen environmental effect categories representing physical hazards, natural resources, services, land use, and socioeconomic factors as follows:

Earth

Air

Water

Plant and Animal Life

Noise

Light and Glare

Land Use

Risk of Upset

Transportation/Circulation

Public Services

Utilities

Human Health

Aesthetics

Cultural, Archaeological, Historical and Paleontological Resources

In order to avoid duplication and redundancy, and to reduce the size of this EIR, a number of other documents which are a matter of public record and are generally available to the public will be incorporated by reference into this EIR. Such incorporation by reference is authorized by Section 15150 of the CEQA Guidelines.

The following documents are incorporated by reference as an integral part of this EIR to satisfy the CEQA requirements of the EIR:

1. The County of Los Angeles' County Hazardous Waste Mangement Plan (CoHWMP).

2. The County of Los Angeles' General Plan Final Environmental Impact Report, certified on November 25, 1980, first reprint, March 1981.

3. The California Health and Safety Code (CHSC), Division 20, Chapter 6.5, Hazardous Waste Control.

4. The California Administrative Code (CAC), Title 22, Division 4, Chapter 30, Minimum Standards for Management of Hazardous and Extremely Hazardous Waste.

5. The CAC, Title 23, Chapter 3, Subchapter 15, Discharges of Waste to Land.

6. The South Coast Air Quality Management District Rules and Regulations, January 1988.

7. The U.S. Resource Conservation and Recovery Act (RCRA) of 1976.

The CoHWMP is available to the public for inspection at public libraries throughout the County and at the County Department of Public Works, Waste Management Division Office, 900 S. Fremont Avenue, Alhambra. The remaining reference documents are available at the County Department of Public Works, Waste Management Division office.

Those portions of the reference documents and their pertinent relationship to the EIR are briefly described as follows:

The CoHWMP contains Hazardous Waste Management Facility Siting Criteria (HWMFSC) which provide important technical details with reference to Chapter 6.0 ENVIRONMENTAL IMPACT ANALYSIS/MITIGATION MEASURES. These criteria, and the series of factors which define their objectives, identify potentially signficant environmental impacts which hazardous waste management facilities may pose, as well as critera and other measures to minimize and mitigate these impacts.

The HWMFSC also describes the major designs and operational characteristics of six basic types of hazardous waste management facilities. The description includes examples of typical environmental protection and control measures. These measures may be employed to safeguard health and safety and mitigate potential environmental impacts.

The HWMFSC are in the CoHWMP, Vol. III, Appendix 6A.

The discretionary permit process is also an integral and important part of the CoHWMP. A series of discretionary permits are required from a number of

federal, state, regional and local agencies for the construction, operation and closure of a hazardous waste management facility. In addition, permit applicants must also demonstrate the establishment of a financial assurance mechanism for closure of the facility, such as a trust fund, surety bond, letter of credit, insurance policy or equivalent financial arrangement. This must include liability coverage for the facility for claims arising out of bodily injury and property damage to third parties caused by operation of the facility.

Applications for these various permits require extensive technical documentation of the potential impacts, health risk assessment, and mitigating measures, as well as detailed analysis pertaining to facility design, operation, maintenance, and closure and post-closure maintenance (land disposal facility).

A detailed review and discussion of the discretionary permit process is included in the CoHWMP. The discretionary permit process is also pertinent to Chapter 6.0 and is found in the CoHWMP, Vol. III, Appendix 6B.

The CoHWMP also contains information describing plans and programs for emergency response to hazardous waste/material incidents which play a major role in the prevention or mitigation of potentially significant environmental impacts. This information is contained in the CoHWMP, Vol. II, Chapter 10, Emergency Response and Vol. III - Appendix 10A, Los Angeles County Hazardous Material Incident Contingency Plan, and Appendix 10B, Emergency Response Programs in Los Angeles County.

Other portions of the CoHWMP not enumerated here may also include elements which identify or detail potentially significant environmental impacts and mitigation measures.

The County General Plan, Final Impact Report, Chapter 5.0, contains a more detailed description of the environmental setting for Los Angeles County.

Provisions of statutory law and administrative code incorporated by reference contain detailed requirements for permitting hazardous waste facilities and the management of hazardous waste. These are contained in CHSC, Division 20, Chapter 6.5, Article 9, Permitting of Facilities, and Title 22, CAC, Division 4, Chapter 30, Article 4, Hazardous Waste Facility Permit; SCAQMD Regulation II - Permits. These provisions enumerate the basic conditions which are required to be incorporated into operating permits for hazardous waste management facilities and are intended for the purpose of preventing or mitigating impacts on human health and the environment.

Provisions of Title 23, CAC, Chapter 3, Subchapter 15, Article 3, Waste Management Unit Classification and Siting, also contain detailed provisions for the various classifications. The purpose for these provisions also relate to Chapter 6.0 of the EIR and the prevention or mitigation of potentially significant environmental impacts.

Provisions of the Rules and Regulations, SCAQMD, apply to all stationary, non-vehicular sources of air pollution. Each regulation is broken down into a number of rules, each of which deals with a specific topic. For example, Regulation II deals with permits and Rules 201 through 221 pertain to specific types of permits, how they are granted and administered, and their impact. Many rules relate to a specific type of operation or source of pollution. These generally contain a statement of conditions under which the rule applies, definitions of terms, requirements of the rule and allowances or exemptions. In addition to those specific rules which may be pertinent to the various types of hazardous waste management facilities, the provisions of Regulation II -

Permits and Regulation XII - New Source Review, together with Regulation IX - Standards of Performance for New Stationary Sources, are in particular relevent with respect to Chapter 6.0 - Environmental Impact Analysis/Mitigation Measures of this EIR. They contain preconstruction review requirements for new and modified stationary sources to ensure that their construction and operation is consistent with attainment of the National Ambient Air Quality Standards and permit operation provisions/conditions which prevent or mitigate air pollution emission impacts.

Provisions of RCRA, Title II - Solid Waste Disposal, Subtitle C - Hazardous Waste Management, and in particular, Section 3005 concerning permits for treatment, storage, or disposal of hazardous waste for purposes of this EIR, are pertinent regarding Chapter 6.0 of the CoHWMP.

3.3 Plan Compatibility/Consistency

Provisions of state law, regulations and guidelines for development of state, regional and county hazardous waste management plans and their environmental assessment/documentation require collaboration between the state, counties, cities and regional councils of government during the preparation of their plans to ensure that the most sound and economical solutions to hazardous waste management problems are selected.

The hazardous waste management plan serves as the primary planning document for managing hazardous waste at the local level. The plan must be integrated with other local and land use planning activities to ensure that suitable locations are available for needed off-site hazardous waste facilities and that land uses adjacent to, or near off-site hazardous waste facilities, are compatible with their operation. The plan must be prepared with the full and meaningful involvement of the public, environmental groups, civic associations, generators

of hazardous wastes, and the hazardous waste management industry.

Plan Consistency

State Plan: The statewide hazardous waste management plan shall be prepared in conjunction with, and shall take into account, hazardous waste management plans adopted by counties and regional councils of government (California Health and Safety Code, Section 25135.9).

County Plan: The CoHWMP was developed under the auspices of the County Hazardous Waste Management Advisory Committee (CoHWMAC). The CoHWMAC includes representatives of the hazardous waste industry, governmental agencies with expertise in hazardous waste planning, environmental and civic organizations, the general public and representatives from cities within the County selected by the city Selection Committee. A series of four community workshops and additional meetings with various chambers of commerce were held to obtain input for development of the plan.

Within 180 days after the State Department of Health Services approves the CoHWMP, the County shall either incorporate the applicable portions of the plan, by reference, into the County's General Plan, or enact an ordinance which requires that all applicable zoning, subdivision, conditional use permit, and variance decisions are consistent with the portions of the CoHWMP's siting criteria for off-site hazardous waste facilities [California Health and Safety Code, Section 25135.7(b)].

The CoHWMP is consistent with and serves in lieu of a Hazardous Waste Management Element of the County Solid Waste Management Plan (CoSWMP) (California Government Code, Section 66780.8).

City Plan: Each city within the County, within 180 days after receiving

written notification from the State Department of Health Services that it has approved the CoHWMP, shall do one of the following:

1. Incorporate the applicable portions of the approved CoHWMP, by reference, into the city's general plan; or

2. Adopt a city hazardous waste management plan containing all of the elements required for county hazardous waste management plans. The plan shall be consistent with the approved CoHWMP; or

3. Enact an ordinance which requires that all applicable zoning, subdivision, conditional use permit and variance decisions are consistent with the portions of the approved CoHWMP which identify general areas or siting criteria for hazardous waste facilities [California Health and Safety Code, Section 25135.7(c)].

Regional Plan: Governing boards of regional councils of government may elect to prepare a regional hazardous waste management plan to serve as a resource document and to identify hazardous waste management issues, needs, and solutions at the regional level. The Southern California Association of Governments (SCAG) has elected to prepare a Regional Hazardous Waste Management Plan (RHWMP). SCAG has transferred the responsibility for preparing the RHWMP, and state funds granted for such preparation, to the Southern California Hazardous Waste Management Authority (SCHWMA).

SCAG/SCHWMA are required to cooperate and consult with representatives and staff of affected counties and cities in their region and to involve the public, to the fullest extent possible, by public hearings, informational meetings, and other appropriate forums for the preparation of the RHWMP.

The RHWMP is required to be consistent with state guidelines for the preparation

of regional hazardous waste management plans and to apply the methods, techniques, and policies established in the technical reference manual of these guidelines to determine whether there is a need for additional or expanded hazardous waste facilities to safely manage and properly dispose of hazardous waste produced within the region.

[California Health and Safety Code, Sections 25135.3(b), (g), (h), (i)].

3.4 - Future Facility Consistency

The California Legislature has declared that it is in the public interest to, and they have established state policy that has the objective to ensure that safe, effective, and economical facilities for the management of hazardous waste are available when they are needed, and that these facilities are of a type, and operated in a manner which protects the public health and the environment.

Even though suitable sites for treatment and disposal facilities may be limited, it is necessary that all local communities in the state be willing to share the burden of hazardous waste management and that all local governments consider the feasibility and appropriateness of identifying suitable sites for treatment and disposal facilities in their general plans.

[Chapter 1504, 1986 Statutes, Section 1(b)(3), (AB 2948)].

No person shall establish or expand an off-site hazardous waste management facility, unless the legislative body of the city or county in which the off-site facility is proposed makes a determination that the facility or expansion is consistent with the CoHWMP approved by the State Department of Health Services (SDOHS).

The determination shall be based on the following:

1. The proposed facility or expansion is found to be consistent with the Hazardous Waste Management Facility Siting Criteria (HWMFSC) of the CoHWMP; and
2. The need for the facility or expansion has been determined in the CoHWMP; and
3. The location for the new facility is within the general areas identified as suitable for hazardous waste facilities in the CoHWMP; or
4. The location proposed may be equally suitable as determined by a case-by-case evaluation of suitability based on the HWMFSC; and
5. Environmental evaluation/documentation for the site-specific new facility or expansion has been completed, and appropriate findings have been made by the legislative body, as required by the CEQA.

(California Health and Safety Code, Sections 25135.1(d)(6), 25135.4(a), 25135.5, 25235.7(a) and California Public Resources Code (CEQA), Section 21081).

4.0 DESCRIPTION OF ENVIRONMENTAL SETTING - REGIONAL

4.1 - Introduction

Prior to describing the County's setting, a broader view of the region as a whole is appropriate. To aid in defining the various characteristics of the region, much information from the Southern California Association of Governments (SCAG) area is used.

The SCAG region is a complex area, characterized by a climate, topography, economy, and lifestyle that are not only distinct in the United States, but also contain marked internal differences.

About 11.5 million people inhabited the SCAG region in 1980. There are six counties in the region: Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. There are well over 150 municipalities in the region, as well as numerous multi-purpose growth/activity centers of varying size and density. Many of these centers are cities, but some are neighborhoods or communities. The Los Angeles Central Business District (CBD) stands out as the most highly developed center, and also forms the nucleus of the regional core. The regional core is an intensely developed area extending from the CBD to Santa Monica and including 10 major centers. The region's metropolitan area is roughly 40 miles wide by 140 miles long, extending from Ventura and Oxnard on the north to Newport Beach on the south. This development is connected by an elaborate network of freeways, expressways, and conventional state highways.

4.2 - Physical Features

The topography of the region's 38,500 square miles includes a narrow coastal strip and lush coastal valleys on the west, foothills and high rugged mountain

ranges, and inland desert areas on the east. The coastal plains and valleys, although constituting a small portion of the region's land area, contain the majority of population and land devoted to urban activities.

While the region as a whole encompasses many prominent topographical features, the east/west trending mountain ranges, including the Santa Monica, San Gabriel, San Bernardino and Santa Ana Mountains, are perhaps the most notable. Coastal areas bound the Counties of Los Angeles, Ventura and Orange, providing a rich scenic and recreational resource.

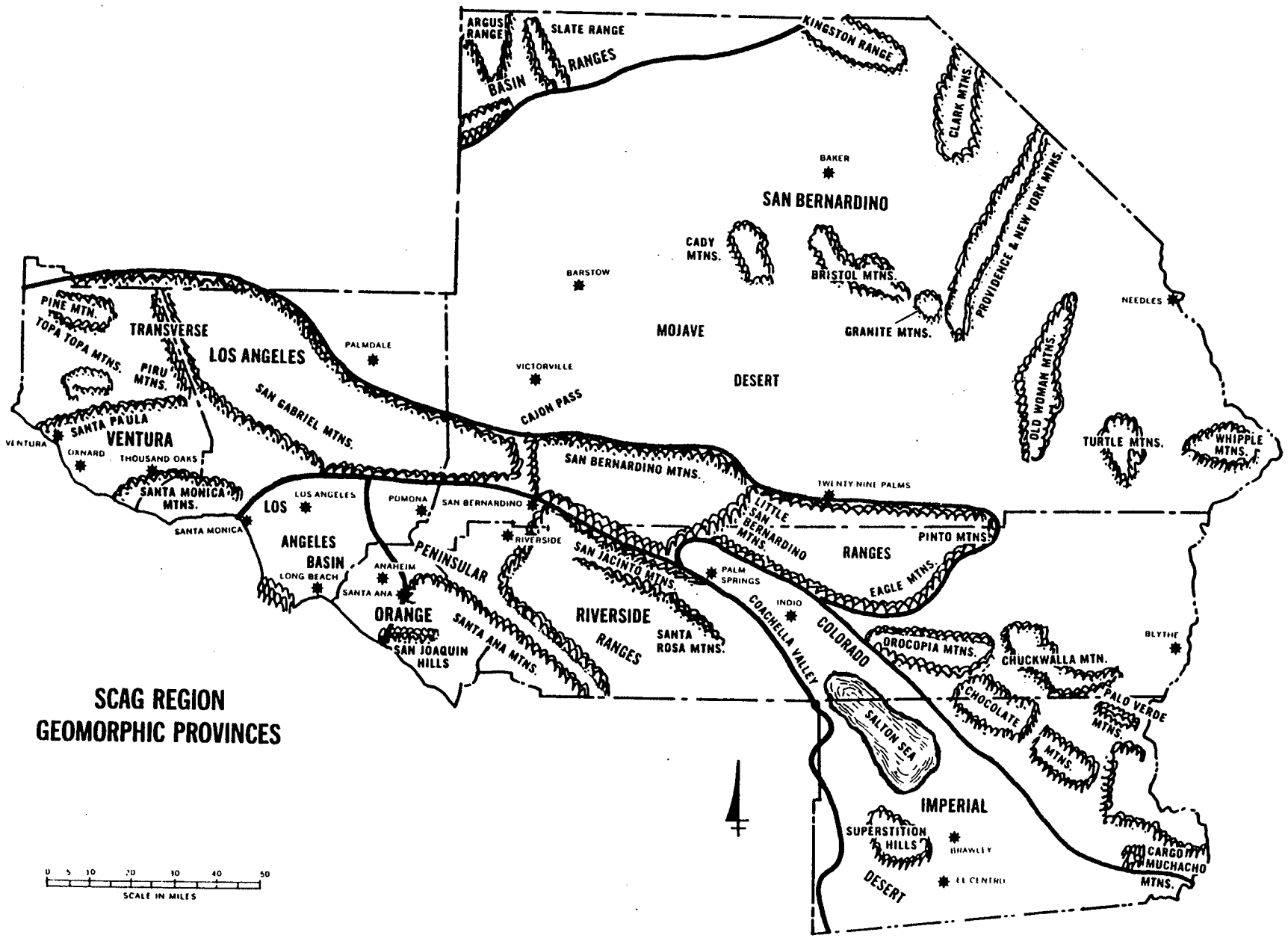
The region extends over five geomorphic provinces, each with characteristic topography and rock types. These provinces include the Transverse Ranges, Peninsular Ranges, Colorado Desert and Basin Ranges. SCAG Region Geomorphic Provinces are depicted in Map 4-1.

Various environmental/soil stability problems such as erosion, landslides, subsidence, and seismic rupture are associated with the geology and soils of the SCAG region. Rock types in the region range from old, crystalline basement rocks; old, chiefly marine, sedimentary rocks; and young continental deposits (alluvia).

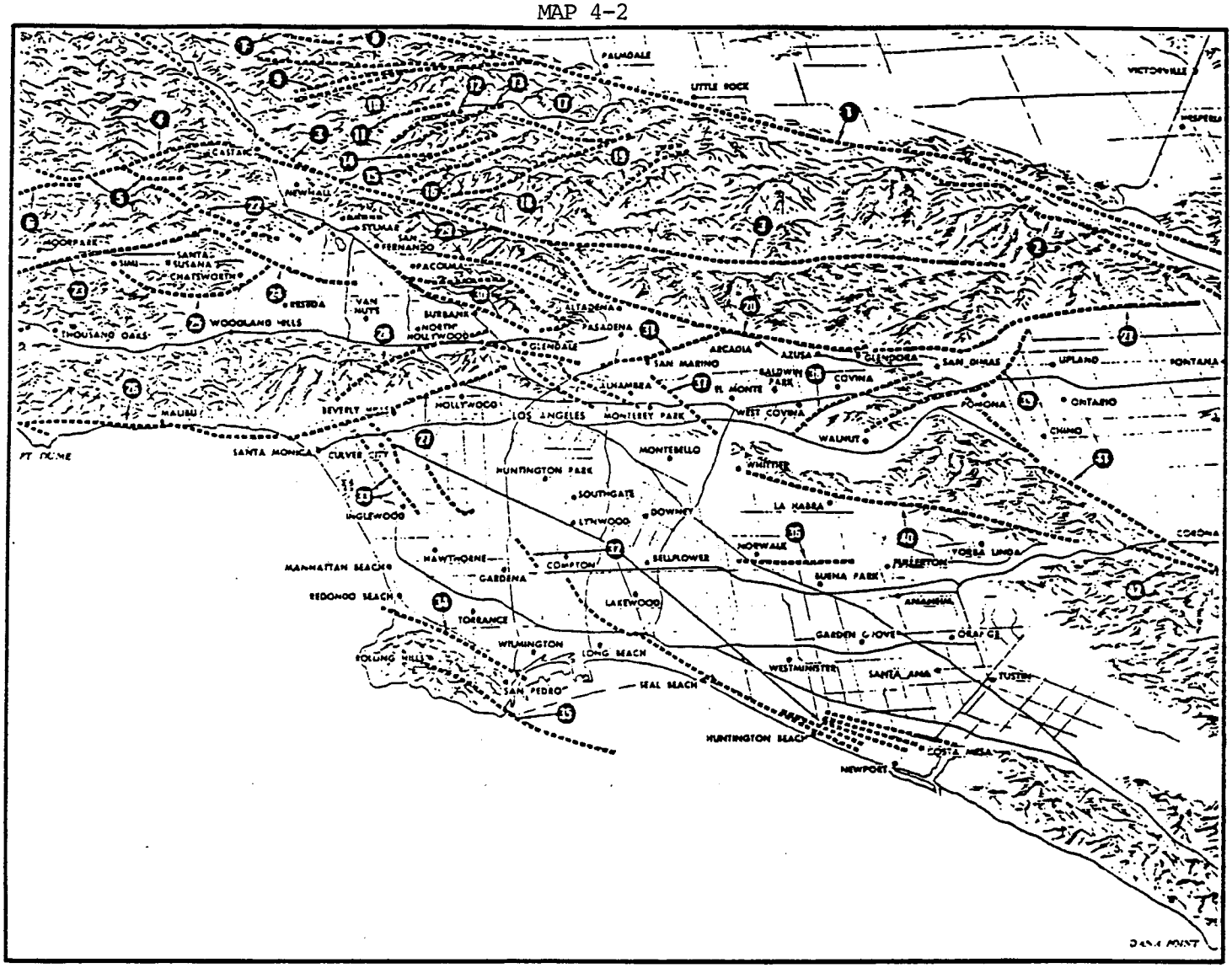
Soils in the mountains and deserts are highly erodible. Landslides can occur in fine-grained materials where bedding planes are cut, or where rock materials fail under loading or weathering. Subsidence occurs chiefly in areas of extensive pumping of oil or water and in marsh or bog areas.

Southern California is well known to be a seismically active area. The network of faults intersecting the urbanized portion of the region is shown in Map 4-2. Major active fault systems in the SCAG region include the San Andreas, Cucamonga, Newport-Inglewood, San Jacinto, San Gabriel, and Imperial fault

MAP 4-1


ARGUS RANGE
SLATE RANGE
BASIN
RANGES
KINGSTON RANGE
CLARK MTNS.
BAKER
SAN BERNARDINO
CADY MTNS.
BRISTOL MTNS.
PROVIDENCE & NEW YORK MTNS.
BARSTOW
NEEDLES
MOJAVE
GRANITE MTNS.
DESERT
VICTORVILLE
CAJON PASS
OLD WOMAN MTNS.
TURTLE MTNS.
WHIPPLE MTNS.
PINE MTN.
TOPA TOPA MTNS.
TRANSVERSE
LOS ANGELES
PALMDALE
PIRU MTNS.
SAN GABRIEL MTNS.
SANTA PAULA
VENTURA
ORNARD
THOUSAND OAKS
SAN BERNARDINO MTNS.
TWENTY NINE PALMS
SANTA MONICA MTNS.
LOS ANGELES
POMONA
SAN BERNARDINO
LITTLE SAN BERNARDINO MTNS.
PINTO MTNS.
SANTA MONICA
RIVERSIDE
ANGELES BASIN
PENINSULAR RANGES
SAN JACINTO MTNS.
PALM SPRINGS
EAGLE MTNS.
LONG BEACH
ANAHEIM
SANTA ANA
ORANGE
SANTA ANA MTNS.
SAN JOAQUIN HILLS
RIVERSIDE RANGES
SANTA ROSA MTNS.
INDIO
COACHELLA VALLEY
COLORADO
OROCOPIA MTNS.
CHUCKWALLA MTN.
BLYTHE
CHOCOLATE MTNS.
PALO VERDE MTNS.
SALTON SEA
IMPERIAL
SUPERSTITION HILLS
BRAWLEY
EL CENTRO
DESERT
CARGO MUCHACHO MTNS.
SCAG REGION
GEOMORPHIC PROVINCES
0 5 10 20 30 40 50
SCALE IN MILES

MAP 4-2



Earthquake Faults in the Urbanized Portion of the SCAG Region

1 - SAN ANDREAS FAULT
2 - SAN JACINTO FAULT
3 - SAN GABRIEL FAULT
4 - HOLSER FAULT
5 - SAN GAYETANO FAULT
6 - OAK RIDGE FAULT
7 - LIEBRE FAULT ZONE
8 - CLEARWATER FAULT
9 - BEE CANYON FAULT
10 - SAN FRANCISQITO FAULT
11 - VASQUES CANYON FAULT
12 - MINT CANYON FAULT
13 - GREEN RANCH FAULT
14 - SOLEDAD FAULT
15 - POLE CANYON FAULT
16 - MAGIC MOUNTAIN FAULT
17 - ACTON FAULT
18 - TRANSMISSION LINE FAULT
19 - PACIFIC MOUNTAIN FAULT
20 - SIERRA MADRE FAULT ZONE
21 - CUCAMONGA FAULT ZONE
22 - SANTA SUSANA THRUST
23 - SANTA ROSA FAULT
24 - NORTHRIDGE HILLS FAULT
25 - CHATSWORTH FAULT
26 - MALIBU COAST FAULT
27 - SANTA MONICA FAULT
28 - SEPULVEDA FAULT
29 - TUJUNGA FAULT
30 - VERDUGO FAULTS
31 - RAYMOND HILL FAULT
32 - NEWPORT INGLEWOOD FAULT ZONE
33 - CHARNOCK FAULT
34 - PALOS VERDES FAULT ZONE
35 - CABRILLO FAULT
36 - NORWALK FAULT
37 - WORKMAN MILL FAULT EXTENSION
38 - WALNUT CREEK FAULT
39 - SAN JOSE FAULT
40 - WHITTIER FAULT ZONE
41 - CHINO FAULT ZONE
42 - ELSINORE FAULT

SOURCE: Los Angeles County Board of Supervisors. Report of the Los Angeles County Earthquake Commission. San Fernando Earthquake, February 9, 1971. November 1971.

systems. Movement also occurs along numerous smaller faults. At least 50 earthquakes of Richter Scale magnitude 6.0 or more have occurred in Southern California since 1769. The most intense earthquakes, with epicenters in the region, since the 1971 San Fernando earthquake (magnitude 6.4) occurred in 1979 in the Imperial Valley (magnitude 6.6), in 1986 in Palm Springs (magnitude 6.0), and most recently, October 1987 in Whittier (magnitude 5.9).

Unstable soils resulting in landslides are also an inherent hazard. Mass movement of soils is most demonstrable, perhaps, in the Palos Verdes Peninsula and Pacific Palisades area of Los Angeles County. Landslides have also occurred in other mountainous areas. Furthermore, expansive soils create possible development problems.

Compounding the problem of mass movement of unstable soils are the occasionally great amounts of rainfall which induce supersaturation of soils and cause them to slide. Examples of this can be found during heavy rainstorms in the San Gabriel Mountain foothill communities and in the Santa Monica Mountains.

Flooding and runoff are problems primarily in the frontal mountainous canyons and hilly areas of the region. As more land is developed, the potential for flooding/runoff increases. This is due in part to the fact that a greater amount of impermeable surfaces are being created. However, most developed areas are required to provide adequate storm drain facilities to alleviate the danger of flooding. Dam collapse due to earthquakes provides yet another potential flood hazard.

Because of the nature of the region's dense chaparral vegetation, brush fires pose potential hazards. Also, forest fires during the dry summer and fall seasons pose health and safety hazards, especially to mountainous areas of the region.

Over the last three decades, noise levels have been increasing at a steady rate. This is partially a result of the introduction of larger and noisier transportation vehicles as well as the increase in actual numbers of vehicles. Furthermore, the increasing demands of a growing population for better, more convenient transportation facilities, coupled with inadequate noise control measures to buffer residential areas from noise generated by these facilities, have moved the sources of noise closer to the people.

4.3 - Natural Resources

The region contains two air basins - South Coast Air Basin and Southeast Desert Air Basin. The most populous is the South Coast Air Basin, which includes parts of Santa Barbara, Ventura, Los Angeles, San Bernardino and Riverside counties as well as all of Orange County. Topography, air movement and temperature have direct influences on the concentration of air pollutants. Normally, air contaminants are dispersed, but temperature inversions frequently occur to hold pollutants close to ground level. The most notable area where this phenomenon occurs is the Coastal Basin. Additionally, the most common pollutants are hydrocarbons, carbon monoxide, oxides of nitrogen and sulphur oxides. Automobiles (gasoline exhaust) are the greatest single source of hydrocarbons, oxides of nitrogen and carbon monoxide. Smog (photochemical oxidants) is the result of chemical reactions among the common pollutants in the atmosphere. In addition, stationary sources emit a lesser percentage of a complex mixture of pollutants, the most noticeable component of which is sulfur dioxide.

The water resources of the SCAG region are critical for drinking and domestic uses, agricultural and industrial purposes, habitat for biota, and recreation and commerce. In addition, water resources can present flood hazards and are

primary determinants of topographic features through processes such as erosion and sedimentation.

The value of water resources depends greatly upon their quality (e.g., clarity, mineral content, absence of toxic metals and organic compounds). Pollutants have been and are introduced into waters by point and non-point source discharges. Point source discharges include effluents from sewage treatment facilities and industrial wastewater discharges. Non-point source discharges include runoff of storm water contaminated by such pollutants as trash, oil, gas and lead.

Most water for the region is imported from outside sources - primarily the Colorado River, the Los Angeles Aqueduct and the State Water Project. In the past, the quantity of water provided to the region has presented no major problems although recent droughts demonstrated the need for water conservation measures and a re-evaluation of water sources.

Water quality is, on the whole, of a generally acceptable nature for domestic purposes. State Water Project water, however, is considered to be of higher quality than Colorado River water based on the amounts of dissolved solids. In most areas, groundwater is also generally of high quality. However, high nitrate and total dissolved solids (TDS) concentrations have caused local problems. Recent groundwater monitoring by state and county departments of health services have detected organic contamination resulting in the limited use or shutdown of some wells.

A variety of biological resources have evolved in the region. Because of the topographical and climatic diversity of the region, a wide range of vegetative and animal habitats exist. These biotic habitats range from marine to sub-alpine and desert communities.

4.4 - Energy Resources

Most of the natural gas and nearly one quarter of the electricity consumed in the region come from outside the state.

Both production and supplies of natural gas are declining regionally, while foreign and domestic imports are steadily increasing. The region is not self-sufficient in its production of extractive resources (primarily petroleum).

Major producers of electricity and suppliers of natural gas in the region are the Southern California Edison Company, the Los Angeles City Department of Water and Power and the Southern California Gas Company.

Transportation in the region almost totally depends on petroleum-based fuels, which are used largely for on-road vehicular transporation.

Petroleum (crude oil) is the primary source of all transportation fuels in the region. The fuels are refined principally by large complexes located in the vicinity of the Los Angeles-Long Beach Harbor. In 1981, refineries in the region processed nearly one million barrels of crude oil each day. Most of this supply is from domestic sources located in California and Alaska. The oil reserves in both states are expected to last through this century and beyond. According to a California Energy Commission (CEC) 1982 report, ample resources exist to sustain petroleum requirements of the state during the next two decades. The CEC in 1980 concluded that proven global oil reserves can sustain current worldwide consumption rates for 26 to 29 years, and that total petroleum resources exist to continue consumption at this rate for another 39 to 144 years.

4.5 - Cultural/Scientific/Archeological/Historical Resources

The region's Indian and Hispanic heritage, coupled with a wide variety of peoples with different cultural backgrounds, lends a rich cultural heritage to the region.

The wide array of topographic and urban features provide the region with a wealth of scenic resources. Urban development conforms closely to the transportation network - the railroads, then the freeways. Intense development occurs in the coastal basins throughout the region and in the inland areas of San Bernardino and Riverside Counties. Intense agriculture is predominant in Imperial County.

Cultural and scientific resources include structures or sites of historical, archaeological, and paleontological interests. Much of Southern California's developed area contains significant cultural and scientific resource sites, reflecting both the region's long prehistoric occupancy and the semi-arid climate which helped preserve these sites. The greatest concentration of undiscovered archaeological and paleontological sites probably occurs in currently undeveloped mountain, desert and coastal areas.

There are more than 13,000 known or surveyed archaeological sites within the SCAG region, approximately three-fourths of which are located in the desert portions of Imperial, Riverside and San Bernardino Counties. The vast majority of the 930 designated historic sites are located in urbanized areas, primarily in Los Angeles County. Table 4-1 provides an estimate of the number of known and surveyed archaeological and historical sites within the SCAG region.

Archaeological and paleontological resources are frequently uncovered during construction, while historical resources are generally known.

TABLE 4-1

STATUS OF SCAG REGIONAL CULTURAL RESOURCES, 1981

COUNTY	FEDERAL AND STATE DESIGNATED HISTORICAL SITES[a]	KNOWN/SURVEYED ARCHAEOLOGICAL SITES	APPROXIMATE PERCENTAGE OF AREA SURVEYED FOR ARCHAEOLOGICAL RESOURCES
Imperial	40	3,916	less than 5%
Los Angeles	310	1,111	20%
Orange	150	993	25%
Riverside	165	2,200	less than 5%
San Bernardino	180	4,309	less than 5%
Ventura	85	727	10%
SCAG Regional Total	930	13,256	less than 10%

[a] In addition there are estimated to be several thousand local, city, or county designated historical or cultural landmarks within the region, most of these in urbanized portions of Los Angeles, Orange, Ventura, and Riverside counties.

Source: State of California Office of Historic Preservation, 1981.
U.S. Army Corps of Engineers, Los Angeles District, 1981.

4.6 - Land Use/Urban Development

The depiction of the urban portion of the region as new, sprawling and lacking features which create a sense of community identity is becoming less pertinent as the Southern California region evolves more like older metropolitan areas and they become more like Los Angeles in terms of the patterns of land use, housing densities, journey to work, and community identification.

However, since this region's growth tends to be of more recent vintage and compressed into a shorter time period than is typical, its pattern of land development reflects the experience and the trends of the last few decades more than most. These trends have included the increasing importance of the auto in urban travel; dominance of single-family home development; dispersed or decentralization of economic activities; growing affluence; expanding planned development rather than piecemeal urban land conversion.

The general condition of dwelling units in the region is good. This is most likely due to the fact that the majority have been constructed since 1950. However, increasing numbers of dwelling units are now considered substandard, that is, lacking plumbing facilities or overcrowded.

The metropolitan area of the region contains an urbanized core which extends from the Los Angeles CBD to Santa Monica. This regional core covers approxi-57 square miles and is roughly 11 miles wide by 5-1/2 miles long. In 1980, 912,000 persons lived within the core and 891,000 employees worked there. The population density of the core is approximately 2-1/2 times more dense than the remaining urban center areas of the region, and employment density is about three times more dense.

4.7 - Economy

The SCAG region has a large, diverse and mature economy. In 1980, the total Gross Regional Product (GRP), which measures the dollar value of all goods and services produced in the region, was approximately $140 billion. This total was surpassed by only 13 other countries in the entire world.

In 1980, total employment in the SCAG region was 5,605,900, which was 52% of California's total. This ranks it as one of the largest labor markets in the United States. In addition, the SCAG region is a major center for international trade, with total international trade (imports and exports) for 1980 totaling more than $35 billion.

The leading employment sector in the region is manufacturing, with 22% of the total employment. The rapidly growing services area contains 20% of regional employment, while 840,000 employees in retail trade represent 15% of total employed in the region. Manufacturing employment was concentrated in the durable goods sector, with aerospace (aircraft, missiles, electronic components, etc.) as the key industry. Other key manufacturing activities are food processing and fabricated metal products. A major component of service employment in the SCAG region is television and motion picture production.

4.8 - Services

The region's transportation network (streets and freeways) provides relatively fast, unimpeded vehicular movement during off-peak hours. Provision of water and waste service facilities is most nearly complete in the highly urbanized areas, fragmented where expansion into hills and mountains has taken place, and poorest in isolated developments.

Although services vary among jurisdictions, those such as fire, police, and

library are available through almost every city or by contract with the county agency. Other services such as health and welfare are available on a nearly county-wide basis. Beyond the county-wide level, agencies such as the South Coast Air Quality Management District (SCAQMD) and the Regional Water Quality Control Board (RWQCB) serve several counties.

4.9 - Reference

A more detailed description of the overall environmental setting for the region can be found in Chapter III of the 1984 Regional Transportation Plan, Volume 4, Environmental Impact Report, Southern California Association of Governments, April 5, 1984.

5.0 - DESCRIPTION OF ENVIRONMENTAL SETTING - LOS ANGELES COUNTY

5.1 - Introduction

The terrain of the county falls into a broad pattern of Coastal Lowlands, mountains, desert valleys, and the Channel Islands. The southern fourth of the county, site of the second largest metropolis in the United States and the western hemisphere, is in the Coastal Lowland region. (See Map 5-1: Natural Subregions Map and 5-2: Topography of Los Angeles County.)

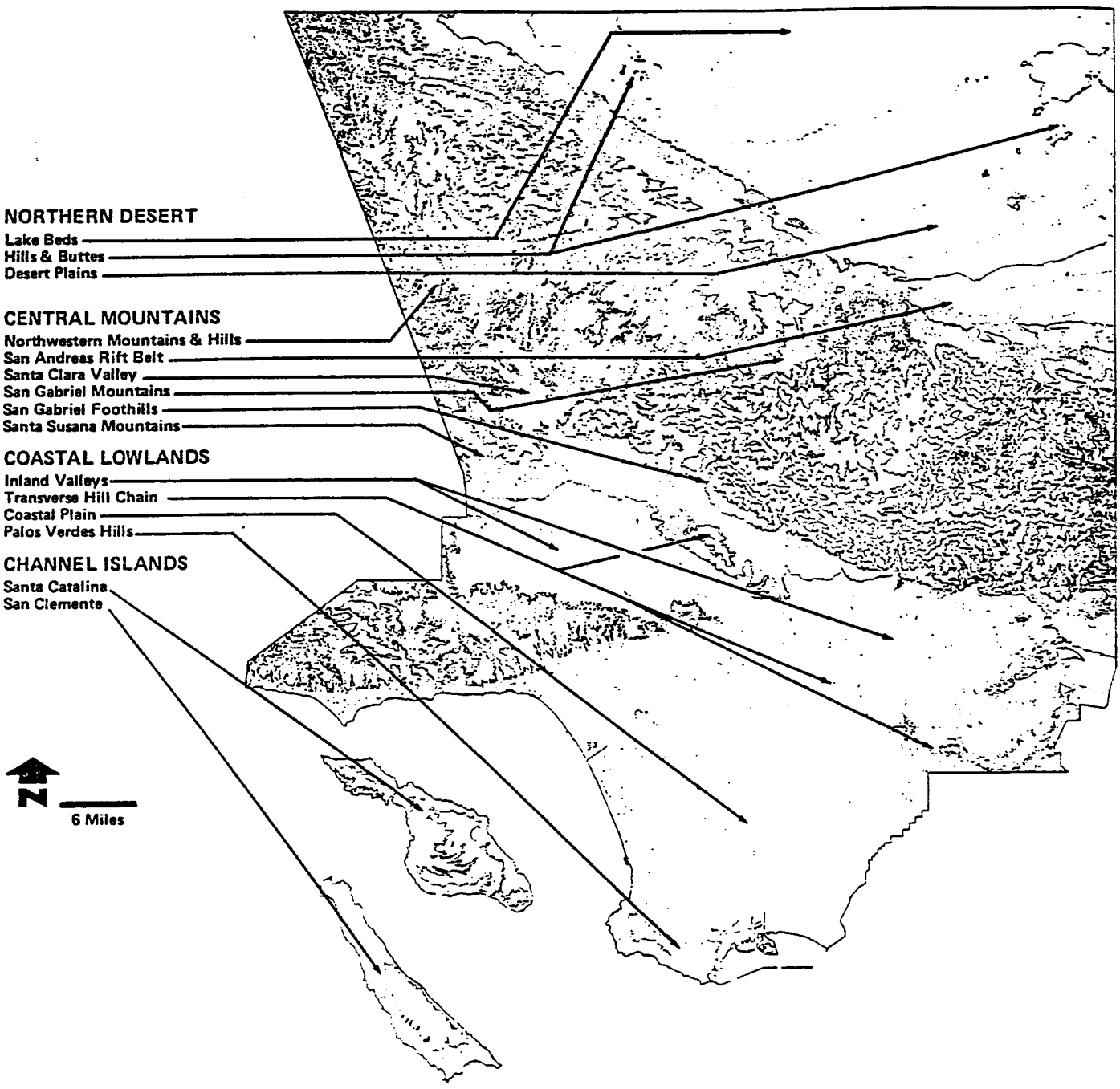
The Coastal Lowlands-

The Coastal Lowland region of Los Angeles County may be divided into three subregions: the Coastal Plain, the Transverse Hill Chain and the Inland Valleys.

The Coastal Plain generally lies below 500 feet in elevation. Its seaward limits are fringed with a combination of marshy lowlands, sand dunes, broad elevated marine terraces and low hill masses such as the Baldwin, Signal, Dominguez and Palos Verdes Hills. The interior edge of the Coastal Plain borders the Transverse Hill Chain and is surrounded by an irregular belt of terraces which are remnants of coalesced alluvial fans.

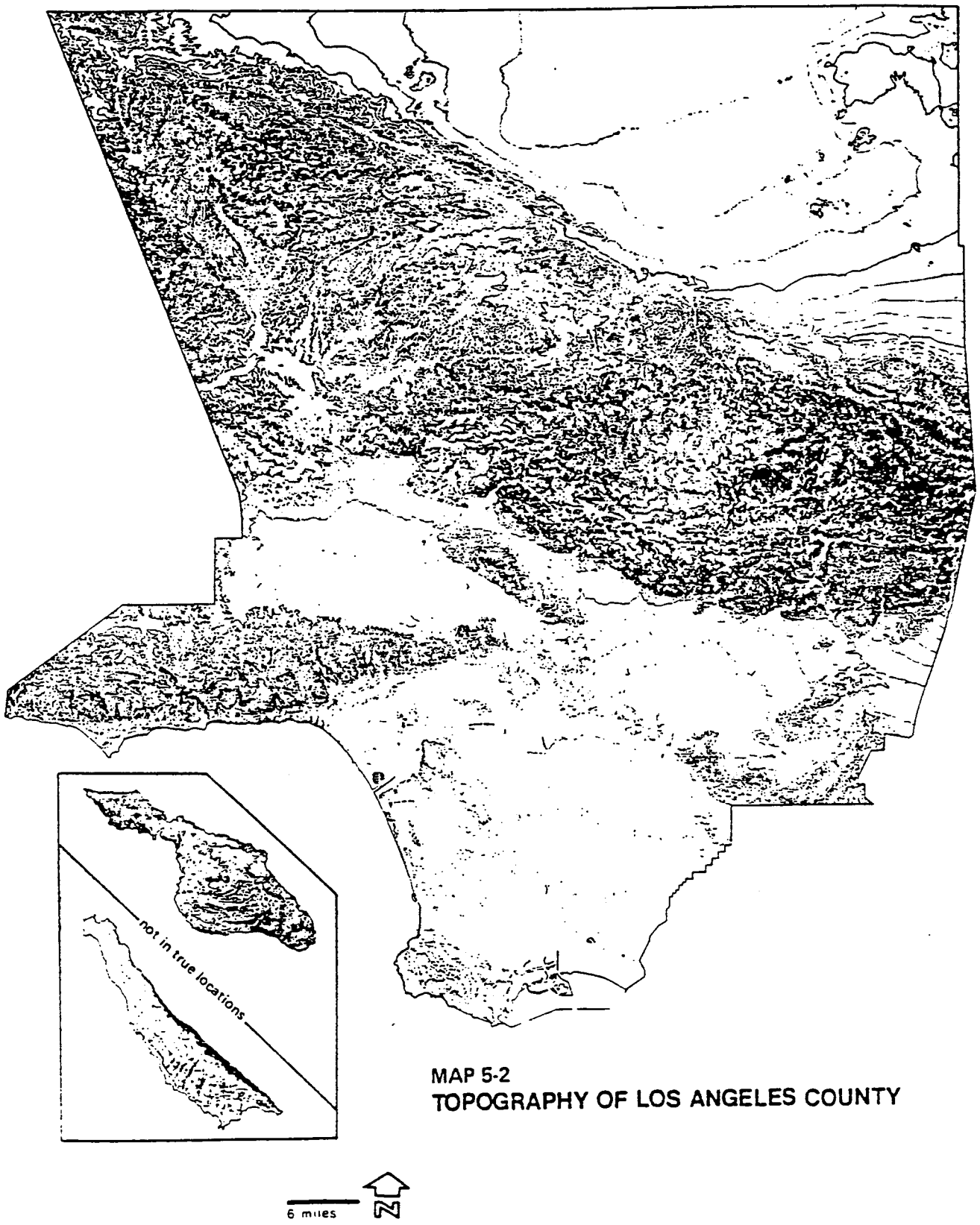
The Inland Valleys are generally less than 1,000 feet above sea level. In the county, there are two major Inland Valleys: the San Gabriel and the San Fernando Valleys. These two broad valleys, surrounded by hills and mountains, are tilted downward toward the sea and are connected to the Coastal Plain by various gaps and passes through the Transverse Hill Chain.

The Transverse Hill Chain, with peaks generally below 2,500 feet in elevation, extends from west to east through the Coastal Lowlands of Los Angeles County and divides the Coastal Plain from the Inland Valleys. Components of the



MAP 5-1

NATURAL SUB-REGIONS



MAP 5-2
TOPOGRAPHY OF LOS ANGELES COUNTY

Transverse Hill Chain include the Santa Monica and Verdugo Mountains, and the Repetto, San Rafael, Puente and San Jose Hills.

Mountains-

A formidable mountain chain slants diagonally from northwest to southeast through the center of the county. This Central Mountain Chain covers nearly half of the county and rises to an elevation of more than 10,000 feet at the summit of Mt. Baldy. The major elements of these mountains include the San Gabriel Mountains, with extensive areas above 5,000 feet in elevation, and the Northwest Mountains and Hills with summits generally below 5,000 feet. Between the San Gabriel Mountains on the south and the Northwest Mountains and Hills on the north side is the Santa Clarita Valley with a floor ranging from 1,000 to 3,000 feet in elevation.

Desert-

The northern quarter of the county, the Antelope Valley, is a broad elevated Plain. This Plain, the westerly extremity of the Mojave Desert, tilts gently downward to the north and ranges in elevation from 2,500 to 4,000 feet above sea level. Its southerly border is the complex terrain of the San Adreas Rift Belt characterized by long narrow valleys, and low ridges trending from northwest to southeast. The complexity is caused by constant motion, over time, of the San Andreas rift belt. The belt is a transition or foothill zone between the desert plain and the mountains. The more prominent topographic features include Leona, Anaverde and Valyermo Valleys and Portal, Ritter and Holcomb Ridges.

An important subregion of Antelope Valley is the area of dry, very flat lake beds northerly and northeasterly of the community of Lancaster. Another

subregion lies in the northeast corner of Antelope Valley around the community of High Vista. This is an area of widely spaced low buttes and hills and elevated uplands.

Channel Islands-

The Channel Islands - Santa Catalina and San Clemente - are the two most easterly of Southern California's eight Channel Islands. The two islands are the peaks of mountains which rise from continental slopes lying approximately 3-1/2 miles beneath the surface of the Pacific Ocean.

Santa Catalina Island, which is located approximately 26 miles southwesterly of the Los Angeles Harbor, has an elevation ranging from sea level to 2,100 feet. The island's interior is generally mountainous and rugged, traversed along its main axis by a high ridge. The coastline consists of precipitous cliffs with less than five miles of water frontage providing reasonable access to the island. In addition to the mountainous areas, there is also a central plateau of rolling hills and numerous valleys with moderate slopes adjacent to the ocean.

San Clemente is publicly owned, but devoted to military use. Its range of elevations is similar to those of Santa Catalina.

5.2 - Earth

5.2.1 Geology/Soils -

Los Angeles County is geologically complex and is characterized by many structural variations. The area contains a wide array of generally disarranged rock types which are dissected by many prominent faults. The region is in the youthful stage of geologic evolution and is tectonically unstable. Major

earthquakes have played a prominent role in its past development and are certain to have an important influence on its future.

Geologic complexity goes hand in hand with topographic diversity and presents the same broad, distinct patterns of Coastal Lowlands, deserts and mountains. Generally, the mountains and hills consist of older, resistant solid rocks, while valleys and basins are made up of younger, softer, often unconsolidated materials.

With regard to specific geologic problems, many of the county's hilly areas are subject to slope failures such as landslides and rockslides. Exposure to slope instability hazard has increased with the urbanization of hilly areas, and as a result, slope failures have caused millions of dollars of property damage in past years. Moderate to steep slopes are most likely to have stability problems. Areas affected by this type of hazard include the slopes of the Santa Monica Mountains, the San Gabriel Mountains, the Palos Verdes Hills, the hills and mountains around Newhall and Saugus and the Puente and San Jose Hills.

Another geological problem in certain areas of Los Angeles County is subsidence. Subsidence is surface settlement caused by over-pumping of groundwater and oil reservoirs. Subsidence is a major problem, particularly in coastal areas such as Long Beach, because of the threat of flooding. Also associated with subsidence (in coastal areas undergoing pumping of groundwater) is the intrusion of sea water into underground fresh water basins.

Los Angeles County has a varied pattern of soils that matches and is partly a product of its complex geology and diverse topography. It is possible to recognize the broad general pattern of Coastal Lowlands, Central Mountains, and Northern Desert in describing county soils.

The Coastal lowlands have broad areas of soils which are suitable for both agricultural and urban development. On the margins of the coastal plain and in recent flood plain deposit areas, major soil problems are present.

5.2.2 Faults and Seismicity -

The rock units of Los Angeles County have been dissected and sheared by an extensive fault system. The widely known San Andreas Fault Zone slants through the county in a generally straight line from Gorman to Big Pines and generally separates the Central Mountains from the Northern Desert. The Santa Susana-Sierra Madre-Cucamonga Fault Zone generally follows the southern edge of the Central Mountains and separates them from the Los Angeles basin. The Central Mountains have been thrust up along this mountain frontal fault zone.

The most prominent fault zone of the Coastal Lowlands is the Newport-Inglewood Fault extending from Beverly Hills through Inglewood and Signal Hill to Orange County. Movement along this fault zone resulted in the 1933 Long Beach earthquake. An extensive fault zone also occurs along the southern base of the Santa Monica Mountains.

Because of the presence of four well known active and many other potentially active faults, Los Angeles County is subject to severe earthquake hazard. Damage may occur along, but is not confined solely to, areas on or near faults. Earthquake induced ground movements may reach their greatest displacement or amplitude in the county's valleys and plains, which are covered with unconsolidated materials. However, certain types of construction on relatively hard materials of the hills and mountains may be subject to greater damage than construction on unconsolidated materials. Relatively hard rock materials, however, are less prone to quake damage resulting from settlement, liquefaction (the sudden loss of strength of soils under saturated conditions due to

earthquake shock) and ground lurching. Quakes in coastal areas may also pose the threat of tidal wave (tsunami) damage. Damage by seiches may occur from seismically induced waves on inland water bodies.

5.2.3 Drainage -

Los Angeles County may be generally divided into four major drainage systems: three coastal systems and one desert system. The coastal systems are the Santa Clara River, the Los Angeles and San Gabriel Rivers and the Santa Monica Mountains. The Antelope Valley is within the desert system.

The Los Angeles River drains the San Fernando Valley, the western margin of the San Gabriel Valley, the Central part of the Coastal Plain in the county, the southwestern San Gabriel Mountains and the northeast slope of the Santa Monica Mountains. The San Gabriel River drains the south central San Gabriel Mountains, the central and eastern San Gabriel Valley, the Puente and San Jose Hills and the eastern Coastal Plain in Los Angeles County. The Santa Clara River drains virtually all the northwestern Central Mountains including the north slope of the western San Gabriel Mountains and most of the Northwestern Mountains and Hills. In the Lake Hughes area, Santa Clara tributaries drain even the north slopes of the Central Mountains and the south central slopes of Portal Ridge. The drainage flows to the sea through Ventura County.

In addition to these three major coastal rivers, there are many smaller streams unrelated to the principal rivers which drain directly to the sea. This occurs particularly in the Palos Verdes, the Baldwin Hills, and the Santa Monica Mountains. Some of the notable smaller streams are Malibu, Topanga, and Ballona Creeks.

Most of the desert system includes ridges, hills and valleys along the

San Andreas Fault Zone (except the Lake Hughes area which drains to the sea) and the northerly slope of the Central Mountains. The principal rivers are Big Rock, Little Rock, and Amargosa Creeks, all of which drain toward Rosamond Playa Lake northerly of Lancaster.

The existing urban area south of the San Gabriel Mountains is relatively free from flood hazard as a result of a comprehensive system of flood control channels, dams, debris basins and storm drains. The Los Angeles River and the San Gabriel River-Rio Hondo drainage areas reflect a 50-year construction program, virtually complete. The facilities constructed include over 2,000 miles of storm drains and channels, 20 dams, 83 debris basins and 20 pumping plants. In the northern portion of the county few, if any, improvements have been made even though the potential exists for drainage in the flood plain. The northerly boundary of the Flood Control District is located northerly of Palmdale.

5.3 - Air Quality

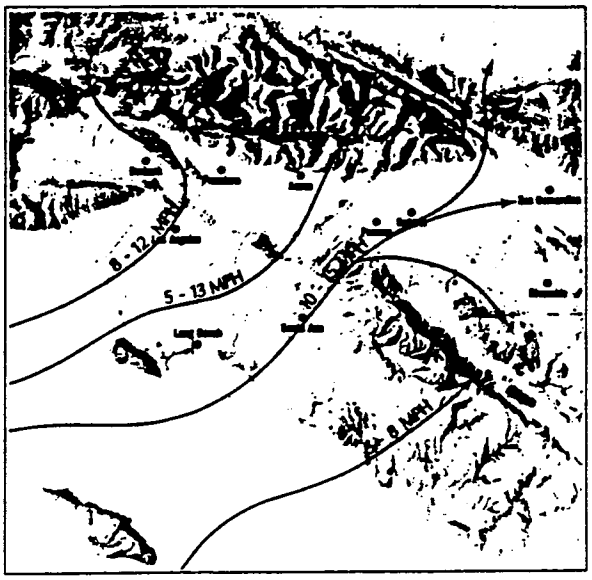
5.3.1 Climate -

The distinctive climate of the South Coast Air Basin is determined by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

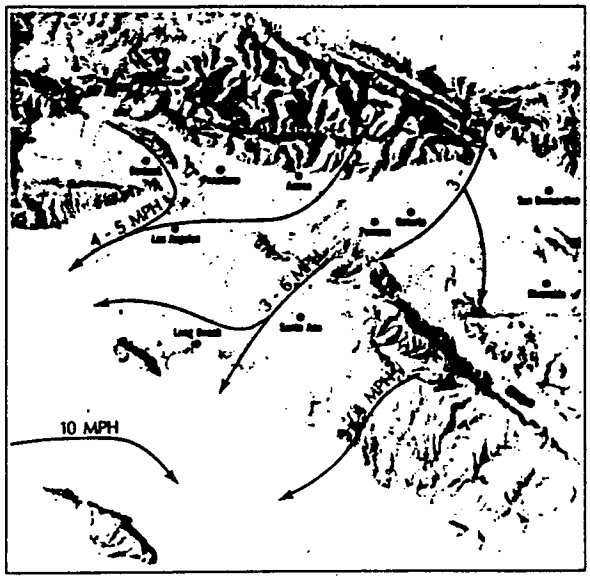
Figure 5-1 shows the terrain of the South Coast Air Basin from the coast to the

Figure 5-1

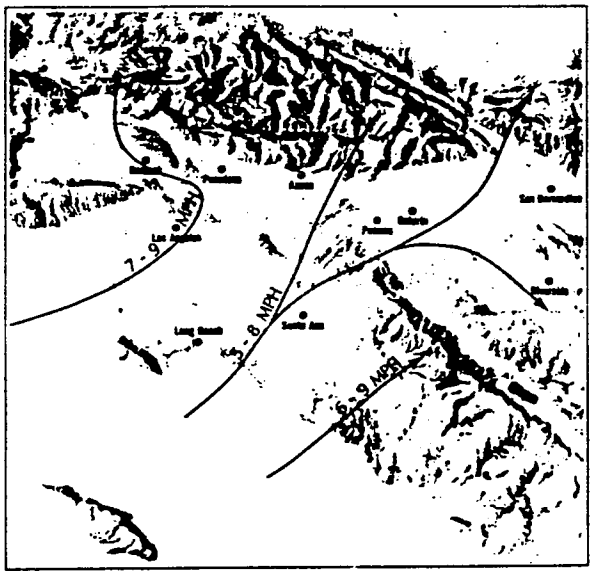
DOMINANT WIND PATTERNS IN THE BASIN



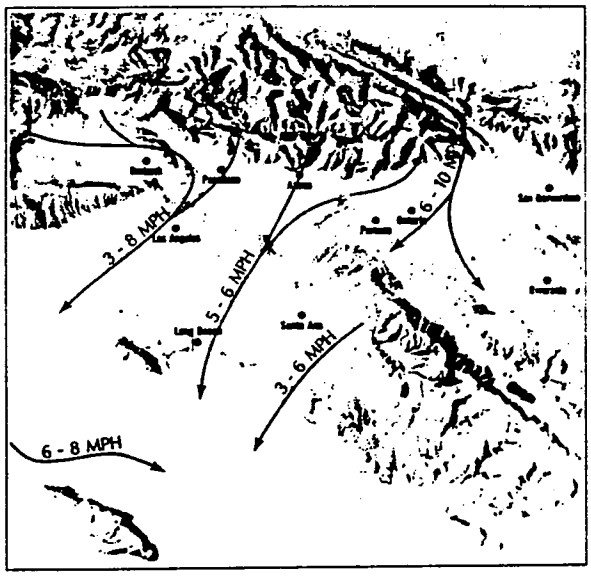
TYPICAL SUMMER DAYTIME OCEAN WINDS
(Noon to 7:00 PM)



TYPICAL SUMMER NIGHT DRAINAGE WINDS
(Midnight to 5:00 AM)



TYPICAL WINTER DAYTIME OCEAN WINDS
(Noon to 5:00 PM)



TYPICAL WINTER NIGHT DRAINAGE WINDS
(Midnight to 7:00 AM)

Figure 5-1 These maps show dominant summer and winter wind patterns in the South Coast Air Basin. For the period of the day shown, the net transport of air onshore usually is greater in the summer, while the net offshore transport as a rule is greater during the winter. Whether there is air movement or air stagnation during the morning and evening hours, before these dominant air flow patterns take effect, is one of the critical factors in determining the smog situation on any given day.

Basin boundary line which follows a general path approximating mountain ridges. The high desert is shown north of the South Coast Air Basin and the low desert to the east.

Temperature

The annual average temperature varies little throughout the 6,600 square-mile Basin, ranging from the low to the middle 60's. However, with a less pronounced oceanic influence, the eastern portion shows greater variability in annual minimum and maximum temperatures. The City of San Bernardino, for example, has an annual average temperature range from 48°F to 79°F, while the Los Angeles International Airport annual range of 54°F to 69°F. All portions of the Basin have had recorded temperatures well above 100°F in recent years. January is the coldest month at all stations, with minimums averaging 47°F in Downtown Los Angeles and 36°F in San Bernardino.

Rainfall

Practically all of the annual rainfall in the Basin falls during the November-April period. Summer rainfall normally is restricted to widely scattered thundershowers near the coast and slightly heavier shower activity in the east and over the mountains. Annual average rainfall varies from nine inches in Riverside to fourteen inches in Downtown Los Angeles, but higher amounts are measured at foothill locations. Monthly and yearly rainfall totals are extremely variable. Rainy days vary from five to ten percent of all days in the Basin, the frequency of such days being higher near the coast.

Humidity

Although the South Coast Air Basin has a semi-arid climate, the air near the surface is surprisingly moist because of the presence of a shallow marine layer

on most days. Except for infrequent periods when dry, continental air is brought into the Basin by off-shore winds, the ocean effect is dominant. Periods with heavy fog are frequent; and low stratus clouds, sometimes referred to as "high fog", are a characteristic climatic feature. Annual average relative humidity is 70% at the coast and 57% in the east.

Wind

With very light average wind speeds, the Basin atmosphere has a limited capability to disperse air contaminants horizontally. Downtown Los Angeles wind speed averages 5.7 miles per hour with little seasonal variation. Summer wind speeds average slightly higher than winter wind speeds. Inland areas record slightly lower wind speeds than Downtown Los Angeles, while coastal wind speeds average about two miles per hour higher than Downtown Los Angeles. The dominant daily wind pattern is a daytime sea breeze and a night-time land breeze, as shown in Figure 5-1. This regime is broken only by occasional winter storms and infrequent strong northeasterly Santa Ana flows from the mountains and deserts north of the Basin.

On practically all spring and early-summer days, most of the pollution produced during an individual day is moved out of the Basin through mountain passes or is lifted by the warm, vertical currents produced by heating of mountain slopes. In those seasons, the Basin can be "flushed" of pollutants by a transport of ocean air of sixty miles or more during the afternoon. From late summer through the winter months, the flushing is less pronounced because of lighter wind speeds and the earlier appearance of off-shore (drainage) winds. With extremely stagnant wind flows, the drainage winds may begin near the mountains by late afternoon. Pollutants remaining in the Basin are trapped and begin to accumulate during the night and the following morning. A low average morning

(6:00 a.m. to noon) wind speed in pollution source areas is an important indicator of air stagnation potential. In Los Angeles, the average morning wind speed is 5 mph; on about 244 days per year it is equal to or less than 5 mph.

Cloudiness

Because of persistent low inversions and cool coastal ocean water, morning fog and low stratus clouds are common. However, 73% of possible sunshine is recorded in Downtown Los Angeles, an important factor considering the necessary role of sunshine in the process of producing photochemical smog. There are 185 clear days (zero to 0.3 of the sky obscured by clouds), 106 partly cloudy days (0.4 to 0.7 cloud cover) and 74 cloudy days (0.8 to full cloud cover) each year on the average. Cloudiness is slightly less in the eastern portions of the Basin and about 25% greater along the coast.

Inversions

The vertical dispersion of air pollutants in the South Coast Air Basin is hampered by the presence of a persistent temperature inversion in the layers of the atmosphere near the surface of the earth. Because of expansional cooling, temperature usually decreases with altitude. A reversal of this state of the atmosphere, wherein temperature increases with altitude, is termed an inversion, which can exist at the surface or at any height above the ground as illustrated in Figure 5-2. The height of the base of the inversion at any given time is known as the "mixing height". The mixing height can change under conditions when the top of the inversion does not change.

Usually, inversions are lower before sunrise than during the daylight hours. The mixing height normally increases as the day progresses, because the sun warms the ground, which in turn warms the surface air layer. As this heating

Figure 5-2

TYPICAL INVERSIONS

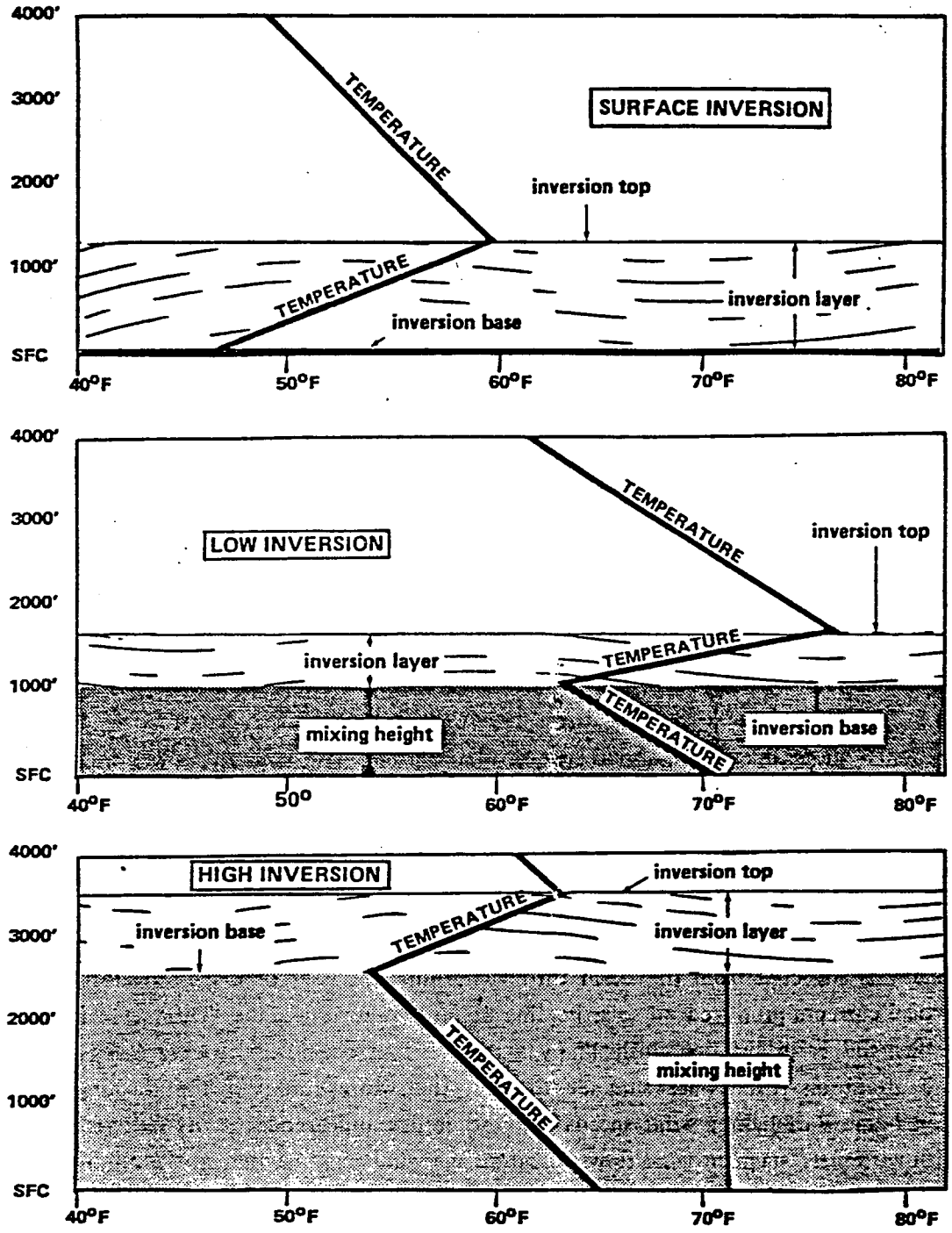


Figure 5-2 plots air temperature on the X axis versus altitude on the Y axis with diagrams of typical inversions: surface-based, low and high inversions. Most of the air pollutants are confined to the air volume below the base of any inversion, or in a very shallow layer near the ground in the case of a surface inversion.

continues, the temperature of the surface layer approaches the potential temperature of the base of the inversion layer. When these temperatures become equal, the inversion layer begins to erode at its lower edge. If enough warming takes place, the inversion layer becomes weaker and weaker and finally "breaks". The surface air layers can then mix upward without limit. This phenomenon is frequently observed in the middle to late afternoon on hot summer days when the smog appears to clear up suddenly. Winter inversions frequently break by mid-morning, thereby preventing contaminant build-up.

The net input of pollutants into the Basin atmosphere from mobile and stationary sources is very much the same nearly every day of the year. Pollutants enter the surface air layers and can mix with less contaminated air from anywhere below the inversion base. The contaminants in the surface layers tend to diffuse and form a relatively uniform mixture (in some cases higher concentrations exist immediately below the inversion base) all the way up to the mixing height. They cannot rise through the inversion. As a result, these air pollutants become more and more concentrated unless the inversion layer lifts, is broken, or unless surface winds are strong enough to disperse the pollutants horizontally.

The combination of low wind speeds and low inversions produces the greatest concentration of pollutants. On days of no inversion or on days of winds averaging over 15 mph, there will be no important smog effects, summer or winter. In the winter, the greatest pollution problems are carbon monoxide and oxides of nitrogen because of extremely low inversions and air stagnation during the night and early morning hours. Photochemical smog levels are much lower during this season due to the lack of strong inversions during the daylight hours and the lack of intense sunlight which is needed for the photochemical reactions.

In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen to form more of the typical photochemical smog. Carbon monoxide is not as great a problem in summer because inversions are not as low and intense in the surface boundary layer (within 100 feet of the ground) as in winter and because horizontal ventilation is better in summer.

Along the Southern California coast, surface air temperatures are relatively cool. The resultant shallow layer of cool air at the surface, coupled with warm, dry, subsiding air from aloft produces early morning inversions on about 87% of the days.

The Basin-wide average occurrence of inversions at the ground surface is 11 days per month; the averages vary from two days in June to 22 days in December and January. Higher inversions, but less than 2,500 feet above sea level occur 22 days each month. Restricted maximum mixing heights, 3,500 feet above sea level or less, average 191 days each year.

The potential for high concentrations varies seasonally for many contaminants. During late spring, summer and early fall, light winds, low mixing heights and brilliant sunshine combine to produce conditions favorable for the maximum production of photochemical oxidants, mainly ozone.

During the spring and summer, when fairly deep marine layers are frequently found in the Basin, sulfate concentrations are at their peak.

When strong surface inversions are formed on winter nights, and are coupled with near-calm winds, carbon monoxide (CO) from automobile exhausts becomes highly concentrated. The highest yearly CO values are generally measured during November, December and January. Similarly, concentrations of oxides

of nitrogen and nitrates are highest during the late fall and winter.

5.3.2 The Air Quality Problem -

The overall air quality in the South Coast Air Basin has shown some improvement in recent years. However, this Basin still has the most serious air quality problem in the nation. Monitored ozone levels are as high as three times the national standard set to protect public health. Carbon monoxide and fine particulate levels (PM_{10}) range up to twice the national health-based standards. This Basin is the only area in the nation still exceeding nitrogen dioxide health standards.

Studies have shown that residents of the more polluted areas of the Basin experience decreases in lung function compared to residents of cleaner areas. Other studies suggest that symtoms of chronic obstructive pulmonary disease may be related to repeated exposures to ozone concentrations above the current health standards. Research shows that air pollution is responsible for tens of millions of dollars worth of damage annually to Basin agriculture. Residents also spend tens of millions of dollars every year to clean and replace articles damaged by air pollution.

The South Coast Air Basin is bordered by mountains which trap pollutants and limit dispersal. In summer, an inversion layer hangs over the Basin, concentrating pollutants under a lid of hot air. During the daytime, sea breezes off the ocean move air masses polluted with primary contaminants, including reactive organic gases (ROG) and oxides of nitrogen (NO_X) inland across the Basin. Sunshine then triggers the photochemical reactions that produce the high ozone concentrations. In winter, inversion layers are frequently based at ground level during night and early morning hours, leading to increased concentrations of pollutants such as carbon monoxide (CO) and NO_X.

Emissions come from nearly all human activities. Large industrial sources have been controlled to a great extent and many traditional "smokestack" industries have left the Basin. However, remaining combustion processes and activities produce emissions which result in unacceptable levels of pollution. Although new automobiles produce far less pollution than they did in past years, mobile sources still represent roughly 60 percent of today's emissions.

The problem of reducing today's pollution is compounded by a projected increase of five million new residents and three million new dwelling units and jobs to the region during the next 20 years. This potential growth presents significant traffic congestion and air quality problems to be resolved.

5.3.3 Air Quality Standards and Episode Criteria -

The State of California and the federal government each have established air quality standards and emergency episode criteria. California and Federal Ambient Air Quality Standards are summarized in Table 5-1. Episode criteria are summarized in Table 5-2.

Air quality standards are set at concentrations which provide a sufficient margin to protect public health and welfare. Episode criteria define air pollutant concentrations at which short-term exposures may begin to affect the health of that portion of the population especially susceptible to air pollutants. The health effects are progressively more severe and widespread as pollutant concentrations increase from Stage One to Stage Two and Stage Three Episode levels. The episode levels require specific actions by industry, the public and the South Coast Air Quality Management District (SCAQMD).

5.3.4 Existing Ambient Air Quality -

The South Coast Air Basin consists of the non-desert portions of Los Angeles,

TABLE 5-1

AMBIENT AIR QUALITY STANDARDS

AIR POLLUTANT	CALIFORNIA		FEDERAL		
	CONCENTRATION	DISTRICT METHOD	PRIMARY (>)	SECONDARY (>)	METHOD[a]
Ozone	0.10 ppm, 1-hr. avg. ≥	U.V. Photometry	0.12 ppm, 1-hr. avg.	0.12 ppm, 1-hr. avg.	Chemiluminescent
Carbon Monoxide	9 ppm, 8-hr. avg.[b] > 20 ppm, 1-hr. avg. >	Non-dispersive Infra-red Spectrophotometry	9 ppm, 8-hr. avg.e) 35 ppm, 1-hr. avg.	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	Non-dispersive Infra-red Spectrophotometry
Nitrogen Dioxide	0.25 ppm, 1-hr. ave. ≥	Gas Phase Chemiluminescence	0.05 ppm, annual avg.[f]	0.053ppm, annual avg.	Gas Phase Chemiluminescence
Sulfur Dioxide	0.05 ppm, 24-hr. avg. with Ozone > 0.10 ppm, 1-hr.avg. or TSP ≥ 100 ug/m³, 24-hr. avg. 0.25 ppm, 1-hr. avg. > [c]	Pulsed Fluorescence	0.03 ppm, annual avg. 0.14 ppm, 24-hr. avg.	0.53ppm, 3-hr. avg.	Para-rosaniline
Total Suspended Particulate (TSP)			75 ug/m³, annual geometric mean 260 ug/m³, 24-hr. avg.	60 ug/m³, annual geometric mean 150 ug/m³, 24-hr.avg.	High Volume Sampling
Suspended Particulate Matter (PM 10)	30 ug/m³, annual geometric mean[d] > 50 ug/m³, 24-hour average >	Size segregated inlet high volume sampling	50 ug/m³, annual arithmatic mean 150 ug/m³, 24-hr. avg.	50 ug/m³, annual arithmatic mean 150 ug/m³, 24-hr. avg.	High Volume Sampling Size Selective Inlet
Sulfates	25 ug/m³, 24-hr. avg. ≥	High Vol. Sampling Methyl-thymol Blue	-	-	-
Lead	1.5 ug/m³, 30-day avg. ≥	High Vol. Sampling x-ray fluorescence	1.5 ug/m³, calendar quarter	1.5 ug/m³, calendar quarter	High Volume Sampling Atomic absorption Spectrophotometry
Hydrogen Sulfide	0.03 ppm, 1-hr. avg. ≥	Cadmium Hydroxide Stractan	-	-	-
Vinyl Chloride	0.010 ppm, 24-hr. avg. ≥	Gas Chromatography	-	-	-
Ethylene	0.10 ppm, 8-hr. avg. > 0.50 ppm, 1-hr. avg. ≥	-	-	-	-
Visibility Reducing Particles	In sufficient amount to reduce the prevailing visibility to less than 10 miles at relative humidity less than 70%, 1 obs.	-	-	-	-

a) Reference method as described by the federal government. An equivalent method of measurement may be used as approved by the federal government.
b) Effective December 15, 1982. The standards were previously 10 ppm, 12-hour average and 40 ppm, 1-hour average.
c) Effective October 5, 1984. The standard was previously .5 ppm, 1 hour average.
d) Effective August 19, 1983. The standards were previously 60 ug/m³ TSP, annual geometric mean, and 100 ug/m³ TSP, 24-hour average.
e) Effective September 13, 1985, standard changed from > 10mg/m³ (≥ 9.3 ppm) to > 9ppm(≥ 9.5 ppm).
f) Effective July 1, 1985, standard changed from > 100mg/m³ (> .0532 ppm) to > .053 ppm (> .0534 ppm).

TABLE 5-2

EPISODE CRITERIA

AIR POLLUTANT	SCAQMD AND CALIFORNIA			FEDERAL		
	STAGE 1	STAGE 2	STAGE 3	STAGE 1	STAGE 2	STAGE 3
Ozone	0.20 ppm, 1-hr. avg.	0.35 ppm, 1-hr. avg.	0.50 ppm, 1-hr. avg.	-	-	0.50 ppm, 1-hr. avg.
Carbon Monoxide	40 ppm, 1-hr. avg. 20 ppm, 12-hr. avg.	75 ppm, 1-hr. avg. 35 ppm, 12-hr. avg.	100 ppm, 1-hr. avg. 50 ppm, 12-hr. avg.	15 ppm, 8-hr. avg.	30 ppm, 8-hr. avg.	40 ppm, 8-hr. avg.
Nitrogen Dioxide	-	-	-	0.60 ppm, 1-hr. avg. 0.15 ppm, 24-hr. avg.	1.20 ppm, 1-hr. avg. 0.30 ppm, 24-hr. avg.	1.60 ppm, 1-hr. avg. 0.40 ppm, 24-hr.avg.
Sulfur Dioxide	0.50 ppm, 1-hr. avg. 0.20 ppm, 24-hr. avg.	1.00 ppm, 1-hr. avg. 0.70 ppm, 24-hr. avg.	2.00 ppm, 1-hr. avg. 0.90 ppm, 24-hr. avg.	-	-	-
Sulfur Dioxide/ Particulate Matter Combined	-	-	-	65,000*, 24-hr.avg.	261,000*, 24-hr.avg.	393,000*, 24-hr.avg.
Particulate Matter	-	-	-	375 ug/m^3, 24-hr.avg.	625 ug/m^3, 24-hr.avg.	875 ug/m^3, 24-hr.avg.
Sulfates**	25 ug/m^3, 24-hr. avg. combined with ozone > 0.20 ppm, 1-hr. avg.			-	-	-
Actions to be Taken	Health advisory to a) Persons with respiratory and coronary disease. b) School officials in order to curtail studentsi participation in strenuous activities. First steps in abatement plans.	Intermediate Stage. Abatement actions taken to reduce concentration of pollutant at issue.	Mandatory abatement measures. Extensive actions taken to prevent exposure at indicated levels. State can take action if local efforts failed.	Open burning prohibited. Reduction in vehicle operation requested. Industrial curtailment.	Incinerator use prohibited. Reduction in vehicle operation required. Further industrial curtailment.	Vehicle use prohibited. Industry shut down or curtailment. Public activities ceased.

*Product of sulfur dioxide (ppm), particulate matter (ug/m^3) and a factor (2620).
**Episodes based upon these criteria are not classified according to stages.

Riverside and San Bernardino Counties and all of Orange County. The 1980 census showed a population of 10.9 million, with 7.4 million people concentrated in the Los Angeles County portion. As previously stated, the current projected population of Los Angeles County is now 8.4 million.

The Basin is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego County line.

The SCAQMD is responsible for all air pollution control in the Basin, with the exception of regulations for on-road vehicles which are under the statewide jurisdiction of the California Air Resources Board (ARB). The SCAQMD maintains a network of air monitoring stations to measure the concentration of each contaminant or condition for which California or federal air quality standards exist. There are 39 monitoring stations in the SCAQMD Air Monitoring Network, including four stations in the Los Angeles and Riverside County portions of the Southeast Desert Air Basin (SEDAB). Map 5-3 depicts the SCAQMD Air Monitoring Network, and the station locations.

The SCAQMD measures air quality continually at the monitoring stations in both the coastal and desert areas.

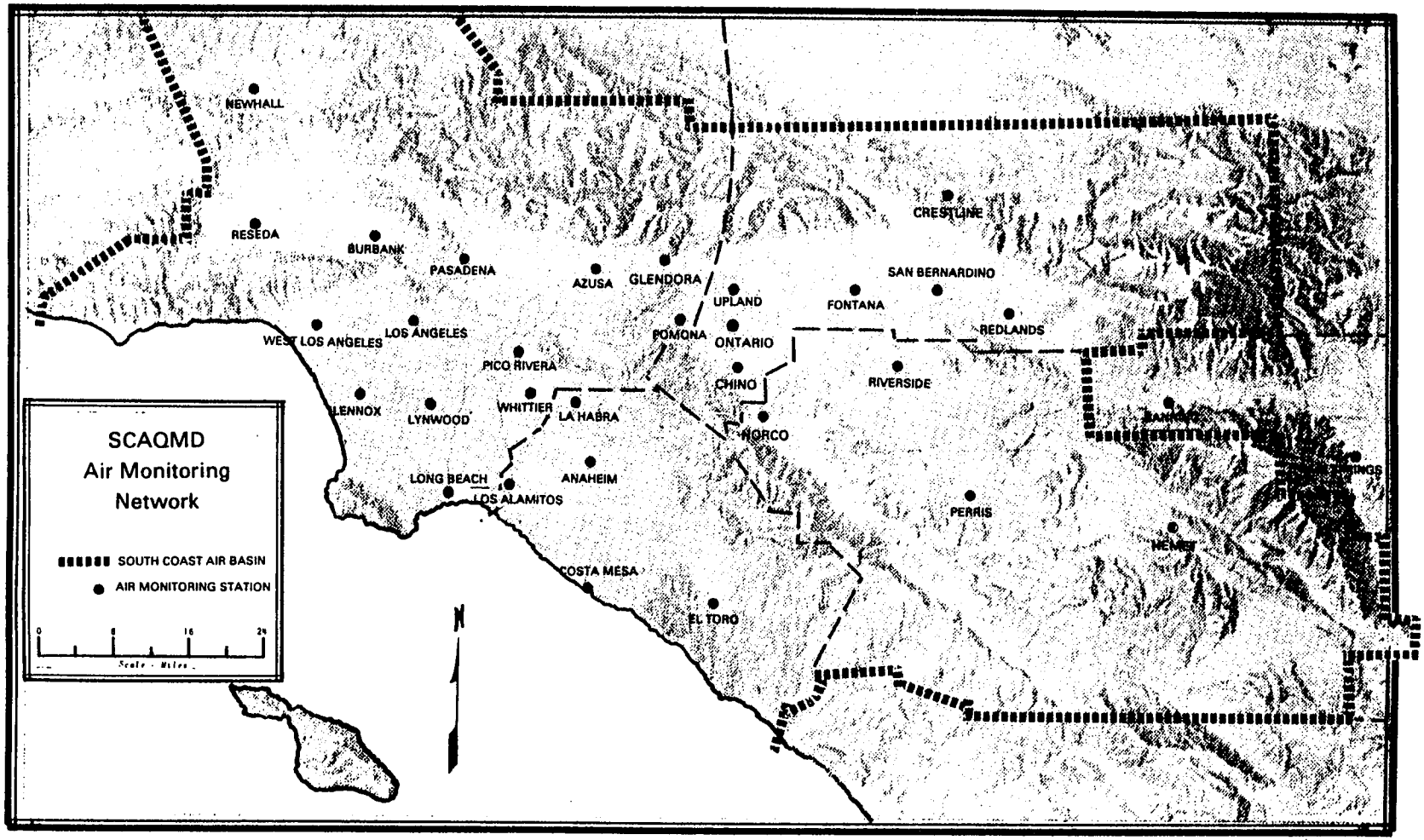
Particulate Matter and Visibility

The most obvious sign of poor air quality is impaired visibility due to fine particulate matter and associated water droplets. High ozone concentrations are frequently accompanied by poor visibility.

Suspended particulate matter 10 micrometers or less in diameter is referred to as PM_{10}. These finer sized particles are a potential cause of signficant health effects, since they can easily penetrate the defenses of the human respiratory

MAP 5-3

AIR MONITORING STATIONS



system. Nitrates and sulfates, which make up a significant fraction of PM_{10}, are also associated with acid fog and acid deposition. Many areas of the Basin significantly exceed the recently promulgated federal standard for PM_{10}.

Ozone

No other region in the United States experiences the ozone problem comparable to that of Southern California. The federal one-hour ozone standard was exceeded in the South Coast Basin an average of 140 days per year during the 1984-86 period. As is typical, ozone levels were lowest along the coast and increased with distance inland. Highest ozone readings occur in an area stretching from Pasadena to San Bernardino and the adjacent mountains. The greatest average number of exceedances outside California was 20 days a year in both Houston, Texas, and the New York City Metropolitan area.

Carbon Monoxide

Exceedances of the carbon monoxide standard in Los Angeles are among the highest in the County. In the period from 1983 through 1984, exceedances occurred on an average of 120 days per year in some Arizona cities and about half that often in the Los Angeles, Denver and New York City metropolitan areas. The highest numbers recorded in Los Angeles County were in Lynwood and Lennox.

Nitrogen Dioxide

No region in the country other than Los Angeles County exceeds the federal nitrogen dioxide standard. Highest concentrations in the region are in an area stretching from Lynwood northward through Downtown Los Angeles and into the eastern San Fernando Valley. A pocket of high readings also exist around Pomona.

It is important to note that emissions of oxide of nitrogen in this Basin lead not only to high ozone and nitrogen dioxide concentrations, but also play a major role in the formation of PM_{10}, acid fog, acid deposition and in visibility degradation.

Sulfur Dioxide

The Basin has been in attainment with the federal sulfur dioxide (SO_2) standards since the mid-1960's. With the exception of one single violation in 1984, the Basin has also been in attainment with the more stringent state standards for SO_2 since 1977.

Of the ten largest U.S. urban areas, Los Angeles had the lowest SO_2 concentrations of all but San Francisco in 1985.

Lead

Combustion of leaded gasoline accounts for nearly all of the lead emitted into the atmosphere of the South Coast Air Basin. As a consequence, lead concentrations are highest in the densely populated parts of the Basin. The reduction of gasoline lead content has resulted in a sharp decrease in atmospheric lead concentrations over the last decade.

The Basin came into attainment of the federal standard and the more stringent state standard for lead in 1983. The Basin has continued to remain in attainment of these standards since that time.

Sulfate

There is no federal standard for sulfate. The average sulfate concentration has shown a steady decline since 1977, with the exception of 1983. The highest 24-hour average sulfate concentration (25.2 ug/m^3) in the Basin was measured

at both the Long Beach and Hawthorne stations. The state standard was exceeded for one day only at both of these locations in 1986.

Air quality data for 1986 for the SCAQMD monitoring station locations are summarized in Table 5-3.

Although present air quality problems are serious, current and past control efforts have achieved substantial gains in air quality, even in the face of large increases in population.

5.4 - Water Quality

Water supplies for Los Angeles County are currently obtained from three sources: (1) groundwater (approximately 40%); (2) Los Angeles City Department of Water and Power - Owens River (approximately 25%); and (3) Metropolitan Water District Colorado River and State Water Project (approximately 35%-20% from the State Water Project and 15% from the Colorado River). The physical facilities for the importation of water have been designed to accommodate population growth substantially in excess of existing population levels.

There are six main groundwater basins in the county. These regions are: Antelope Valley, San Fernando Valley, Santa Clarita Valley, San Gabriel Valley, Central and Upper Santa Ana Valley (see Map 5-4: Los Angeles County Six Main Groundwater Basins). Each basin acts as an underground reservoir from which water is pumped for local use. The basins are replenished by natural percolation and through water replenishment programs. These include Flood Control District projects, salt water barriers and water reclamation projects.

In the Flood Control projects, water is impounded in flood control basins during storms and later released to downstream waterspreading grounds. The percolation of the storm water blends with natural groundwater to form

TABLE 5-3

AIR QUALITY DATA 1986
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Source/ Receptor Area No.	Location of Air Monitoring Station	Carbon Monoxide					Ozone			Nitrogen Dioxide			Sulfur Dioxide				Visibility	
		Max. Conc. in PPM 1-Hour	No. Days Standard Exceeded				Max. Conc. in PPM 1-Hour	No. Days St'd. Exceeded		Max. Conc. in PPM 1-Hour	No. Days St'd.Exc'd.	% AAM Exc'd.	Max. Conc. in PPM 1-Hour	No. Days St'd. Exceeded[a]		% AAM Exc'd.	Location	Days not Meeting State St'd.[c]
			Federal		State			Federal	State		State	Federal		Federal	State	Federal		
			> 9.5 PPM 8-Hrs	> 35 PPM 1-Hr	> 9.1 PPM 8-Hrs	> 20 PPM 1-Hr		> .12 PPM 1-Hour	> .10 PPM 1-Hour		≥ .25 PPM 1-Hour	>.0534 PPM		> .14 PPM 24-Hrs	> .05 PPM 24-Hrs[b]	> .03 PPM		
1	Los Angeles	13	2	0	2	0	.22	48	99	.33	7	14.6	.03	0	0	0	L. A.	ND
2	W. Los Angeles	11	0	0	0	0	.20	30	81	.24	0	0	.02	0	0	0	BUR. AP	219
3	Hawthorne	21	18	0	23	1	.19	8	19	.23	0	0	.09	0	0	0	LAX AP	154
4	Long Beach	13	5	0	5	0	.18	10	29	.26	3	0	.07	0	0	0	L.B. AP	204
5	Whittier	15	0	0	0	0	.25	39	82	.28	1	0	.06	0	0	0	WJF	14
6	Reseda	19	11	0	11	0	.22	72	131	.22	0	0	.02	0	0	0		
7	Burbank	19	16	0	21	0	.28	93	142	.28	2	7.5	.02	0	0	0		
8	Pasadena	14	1	0	1	0	.26	110	166	.24	0	0	.02	0	0	0		
9	Azusa	10	0	0	0	0	.31	126	165	.21	0	0	.03	0	0	0		
9	Glendora[d]	NM	NM	NM	NM	NM	.35	148	191	.13	0	0	NM	NM	NM	NM		
10	Pomona	11	0	0	0	0	.27	89	133	.25	1	4.5	NM	NM	NM	NM		
11	Pico Rivera	14	1	0	1	0	.24	79	126	.26	1	0	.03	0	0	0		
12	Lynwood	27	41	0	44	11	.20	16	46	.26	3	0	.13	0	0	0		
13	Newhall	NM	NM	NM	NM	NM	.24	87	128	NM	NM	NM	NM	NM	NM	NM		
14	Lancaster	9	0	0	0	0	.20	46	108	.09	0	0	NM	NM	NM	NM		
16	La Habra	20	1	0	1	0	.25	49	95	.20	0	0	.06	0	0	0	EL TORO MCAS	ND
17	Anaheim	16	1	0	1	0	.20	28	64	.21	0	0	.03	0	0	0		
17	Los Alamitos	NM	NM	NM	NM	NM	.15	5	30	NM	NM	NM	.03	0	0	0		
18	Costa Mesa	15	3	0	3	0	.17	10	24	.20	0	0	.02	0	0	0		
19	El Toro	7	0	0	0	0	.23	12	38	NM	NM	NM	NM	NM	NM	NM		
22	Norco-Corona	NM	NM	NM	NM	NM	.27	77	140	NM	NM	NM	NM	NM	NM	NM	MARCH AFB	198
23	Riverside Rub.	9	0	0	0	0	.25	106	161	.16	0	0	.02	0	0	0		
23	Riverside Mag.	18	0	0	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
24	Perris	NM	NM	NM	NM	NM	.22	79	133	NM	NM	NM	NM	NM	NM	NM		
28	Hemet	NM	NM	NM	NM	NM	.18	9	40	NM	NM	NM	NM	NM	NM	NM		
29	Banning	NM	NM	NM	NM	NM	.22	45	80	NM	NM	NM	NM	NM	NM	NM		
30	Palm Springs	5	0	0	0	0	.18	31	80	.08	0	0	NM	NM	NM	NM		
30	Indio[e]	NM	NM	NM	NM	NM	.08	0	0	NM	NM	NM	NM	NM	NM	NM		
32	Upland	8	0	0	0	0	.29	111	151	.24	0	0	.01	0	0	0	NOR. AFB	228
33	Ontario	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ONT. AP	255
33	Chino	NM	NM	NM	NM	NM	.25	69	127	NM	NM	NM	NM	NM	NM	NM		
34	Fontana	6	0	0	0	0	.31	121	164	.18	0	0	.02	0	0	0		
34	San Bernardino[f]	9	0	0	0	0	.30	108	149	.18	0	0	.05	0	0	0		
35	Redlands	NM	NM	NM	NM	NM	.29	93	144	NM	NM	NM	NM	NM	NM	NM		
37	Crestline	NM	NM	NM	NM	NM	.26	117	154	NM	NM	NM	NM	NM	NM	NM		

PPM - Parts by volume per million parts of air.
AAM - Annual Arithmetic Mean.
NM - Pollutant not monitored.
ND - No data available.
a) - The Federal (3-hours > .50 ppm) and State (1-hour ≥ .25 ppm) standards were not exceeded.
b) - Twenty-four hours > .05 ppm with 1-hour ozone ≥ .10 ppm, or with 24 hours TSP > 100 ug/m^3.
c) - Visibility standard is less than 10 miles on days when relative humidity is less than 70%.
d) - Nitrogen oxides monitoring initiated December 9, 1986.
e) - Ozone monitoring terminated March 31, 1986.
f) - Ozone monitored entire year; carbon monoxide, sulfur dioxide and nitrogen oxides - reactivated June 1, 1986.

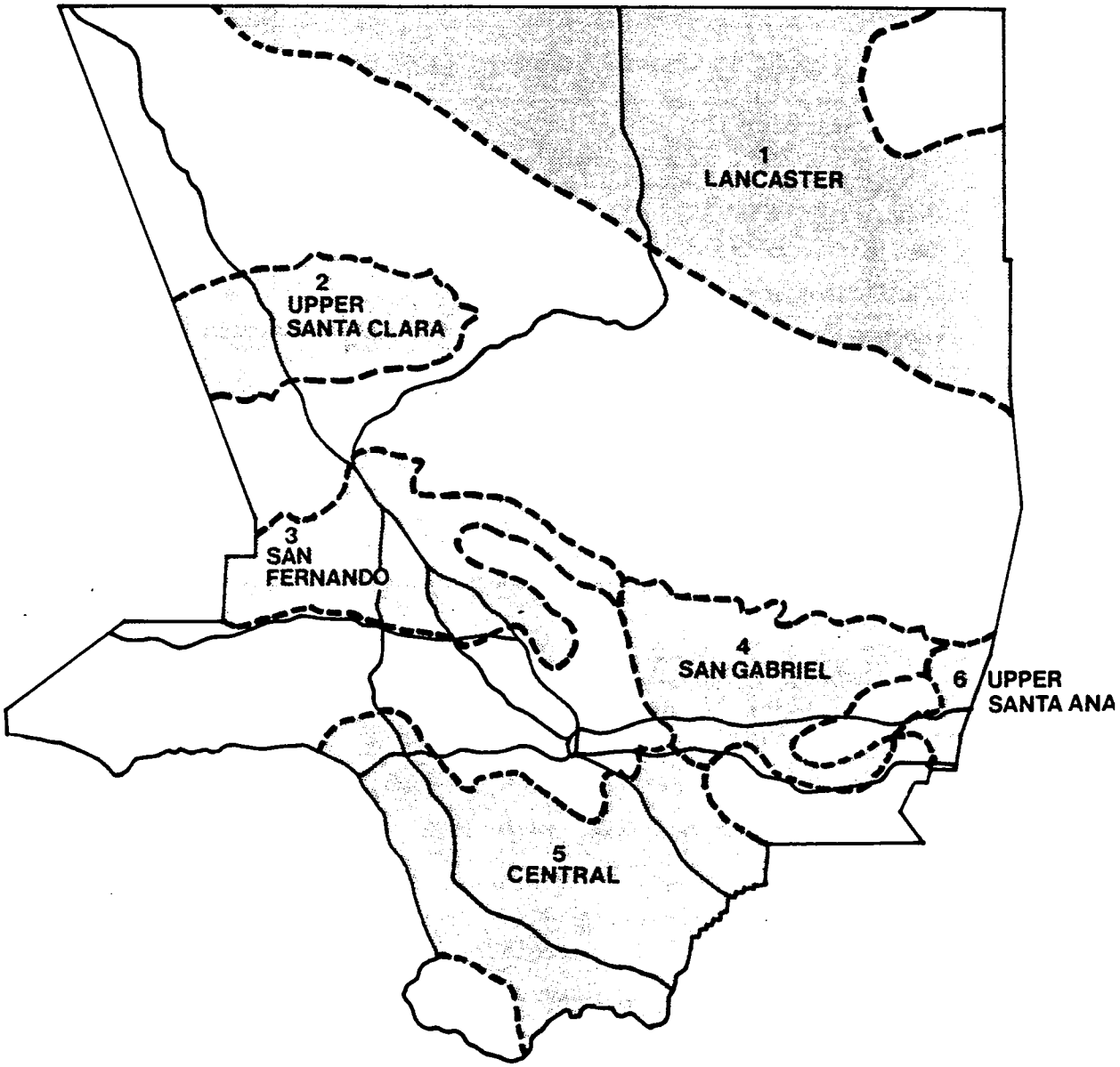
South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 Flair Drive
El Monte, CA 91731

TABLE 5-3 (Continued)

AIR QUALITY DATA 1986
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Source/ Receptor Area No.	Location of Air Monitoring Station	Total Suspended Particulates[g]						Lead[g]			Sulfate[g]		Suspended Particulates PM_{10}[h]			
		Number of Samples	Max. 24-Hr. Conc, ug/m^3	No. Samples Exceeded 24-Hr. Standard		Percent AGM Standard Exceeded		Max. 24-Hr. Conc, ug/m^3	Number of Occasions Standard Exceeded		Max. 24-Hr. Conc, ug/m^3	No. Samples Ex. St'd.	Number of Samples	Max. 24-Hr. Conc, ug/m^3	No. Samples Exceeded Standard	Percent AGM St'd. Exc'd.
				Federal		Federal			Federal	State		State			State	State
				> 260 ug/m^3	> 150 ug/m^3	> 75 ug/m^3	> 60 ug/m^3		> 1.5 ug/m^3 Qrtly Avg.	≥ 1.5 ug/m^3 Mo. Avg.		> 25 ug/m^3 24-Hours			> 50 ug/m^3 24-Hours	> 30 ug/m^3
1	Los Angeles	60	235	0	3	18.9	48.7	0.64	0	0	20.4	0	58	178	38	79.7
2	W. Los Angeles	60	175	0	1	0	0	0.45	0	0	16.9	0	NM	NM	NM	NM
3	Hawthorne	59	182	0	2	0	16.0	0.45	0	0	25.2	1	NM	NM	NM	NM
4	Long Beach	58	174	0	3	8.1	35.2	0.60	0	0	25.2	1	52	136	21	68.4
5	Whittier	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
6	Reseda[i]	19	143	0	0	0	0	0.27	0	0	11.7	0	NM	NM	NM	NM
7	Burbank	59	241	0	3	19.5	49.3	0.74	0	0	19.1	0	58	211	39	88.7
8	Pasadena	54	208	0	2	0	24.9	0.35	0	0	15.6	0	NM	NM	NM	NM
9	Azusa	60	276	1	8	25.7	57.2	0.41	0	0	14.6	0	56	183	34	80.6
9	Glendora[j]	7	160	0	1	0	0	0.18	0	0	11.2	0	NM	NM	NM	NM
10	Pomona	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
11	Pico Rivera	59	225	0	5	25.2	56.5	0.80	0	0	22.1	0	NM	NM	NM	NM
12	Lynwood	59	262	1	5	34.5	68.2	0.94	0	0	22.4	0	NM	NM	NM	NM
13	Newhall	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
14	Lancaster	60	137	0	0	0	2.3	0.26	0	0	8.9	0	NM	NM	NM	NM
16	La Habra[i]	20	151	0	1	1.6	27.0	0.30	0	0	10.1	0	NM	NM	NM	NM
17	Anaheim	60	234	0	4	19.1	48.8	0.46	0	0	18.5	0	NM	NM	NM	NM
17	Los Alamitos	57	197	0	2	14.4	43.0	0.51	0	0	23.6	0	58	124	19	45.6
18	Costa Mesa	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
19	El Toro	60	157	0	2	0	12.0	0.18	0	0	14.9	0	59	109	5	13.1
22	Norco-Corona	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
23	Riverside Rub.	60	347	1	24	60.5	100.7	0.34	0	0	18.4	0	61	294	48	147.1
23	Riverside Mag.	61	326	1	8	28.7	60.8	0.51	0	0	18.5	0	NM	NM	NM	NM
24	Perris	60	215	0	8	18.8	48.5	0.16	0	0	14.0	0	NM	NM	NM	NM
28	Hemet	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
29	Banning	57	213	0	2	0	1.8	0.16	0	0	11.3	0	61	135	20	11.0
30	Palm Springs	59	175	0	3	0	0	0.13	0	0	8.8	0	NM	NM	NM	NM
30	Indio	60	242	0	11	30.5	63.2	0.27	0	0	7.9	0	58	111	26	52.2
32	Upland	61	280	1	5	16.9	46.2	0.48	0	0	15.7	0	NM	NM	NM	NM
33	Ontario	60	332	1	10	39.1	73.8	0.43	0	0	19.8	0	58	272	43	115.6
33	Chino[i]	20	201	0	4	16.5	45.7	0.28	0	0	12.5	0	NM	NM	NM	NM
34	Fontana	61	378	2	17	42.8	78.5	0.40	0	0	18.1	0	56	275	38	110.5
34	San Bernardino	61	385	1	26	54.2	92.3	0.43	0	0	17.8	0	37[k]	285	28	145.8
35	Redlands[i]	20	191	0	3	0	7.7	0.19	0	0	9.9	0	NM	NM	NM	NM
37	Crestline	58	122	0	0	0	0	0.13	0	0	8.0	0	NM	NM	NM	NM

ug/m^3 - Micrograms per cubic meter of air.
AGM - Annual Geometric Mean.
g) - Total suspended particulates, lead and sulfate were determined from samples collected by the high volume sampler method, glass fiber filter media.
h) - Suspended particulates PM_{10} samples were collected using the size-selective inlet high volume sampler with quartz filter media (PM_{10} refers to fine particles with an aerodynamic diameter of 10 micrometers or less).
i) - Sampling period: January through April 1986.
j) - Sampling period: January through February 7, 1986.
k) - Sampling period: May 26 through December 1986.



MAP 5-4

LOS ANGELES COUNTY SIX MAIN GROUNDWATER BASINS

N

10 Miles

THE REGIONAL PLANNING COMMISSION
COUNTY OF LOS ANGELES, CALIFORNIA
1970

subsurface reservoirs. Level of replenishment is, however, partially dependent on total precipitation and frequency/intensity and duration of storms. Salt water barrier replenishment projects generally involve the use of fresh water from the Colorado River to repulse the intrusion of sea water.

There is a deficient local groundwater supply due to relatively low and variable rainfall, and seasonal stream flows. The major production uses of groundwater include domestic, industrial and agricultural.

These basins have been pumped for over 100 years. Despite urbanization, the general quality of the water has been generally good. However, high nitrate and TDS concentrations have caused some local problems. Recent groundwater monitoring (AB 1803) by State and Los Angeles County Departments of Health Services have detected organic contamination in groundwater. Elevated concentrations of contaminants above the State Action Levels have prompted the limited use of many wells and the shutdown of some wells.

The major surface water resource areas are the Los Angeles and San Gabriel River drainage areas. The Los Angeles River drains the hills surrounding the San Fernando Valley and empties into Long Beach Harbor. The drainage area has had minor water quality problems due to high pH, nitrate/nitrite and chlorine levels, and low dissolved oxygen. The Hansen Flood Control Basin is losing capacity rapidly as a result of sedimentation. The Sepulveda Basin is now beginning to receive treated wastewater. Additional surface water features in the area include Ballona Creek and Harbor Lake, which provide significant wildlife habitats. Harbor Lake has generally shown good water quality; Ballona Creek has had problems due to low dissolved oxygen.

The San Gabriel River drainage area features the San Gabriel River, which originates in the San Gabriel Mountains and empties into the ocean between

Long Beach and Seal Beach. Major features in the drainage area include the Puddingstone, Morris, and San Gabriel Reservoirs. Urban runoff and point source discharges have caused minor water quality problems in the urbanized portion of the drainage system, but good water quality conditions exist in the source areas of the San Gabriel Mountains.

The offshore coastal waters are subject to the diluting effects of the major ocean current systems. However, past ocean dumping practices, current and past treated wastewater discharges, storm drain discharges and periodic sewage spills into Santa Monica Bay have raised questions regarding possible significant water quality degradation. Studies to evaluate these questions are being planned or are under way.

Groundwater has been supplemented with imported water since 1913. Water imported by the Los Angeles City Department of Water and Power is distributed through the Department's own network of mains, primarily in the City of Los Angeles.

Water imported by the Metropolitan Water District of Southern California (MWD-SC) from the Colorado River and the State Water Project is sold to and distributed by 27 member agencies. These member agencies include fourteen cities, twelve municipal water districts and the San Diego County Water Authority.

5.5 - Animal and Plant Life

The vegetation patterns of the County are very complex in form, arrangement and number of species. Regional differences are also quite distinct. The coastal lowlands have been largely cleared of native vegetation and are covered with various species introduced from other areas including a number

of agricultural crops. Only the Transverse Hill chain retains its natural cover of grass, coastal sage and chapparral.

The Central Mountains have a complex vegetation pattern of zones differentiated by elevation and exposure. Higher elevations and north slopes are covered with coniferous and oak forests and woodlands with chaparral belts, sagebrush, and grassland zones between them and the developed lowland.

The northern deserts have a distinctive cover of grasslands and desert and alkali sink shrubs. Pinon-juniper woodland, desert sagebrush, and chaparral blanket the southwestern desert fringes.

Vegetation is an important part of the varied habitat types which exist in Los Angeles County. A habitat includes all the environmental factors which exist in an animal's dwelling place, all of which are interdependent and interrelated. In general, twenty-six habitat types have been identified in the County. Some of these are still fairly widespread while others are critically endangered. Each is composed of an interrelated complex of physical conditions, vegetation, characteristic plants and animals, and for each habitat significant, rare, and endangered species of plant and animal life are also identified.

Examples of these habitats which are of significant ecological importance have been included in areas designated as "Significant Ecological Areas" by the Los Angeles County General Plan. These designations reflect factors such as public interest, environmental values special to each area, fragility of the habitat, the location, degree of present protection, vulnerability and rarity, and the interrelationships among the areas.

5.6 - Noise

Noise levels within the county vary significantly from one place to another. While relevant information on noise levels representative of the entire county is somewhat limited, ambient noise data has been generated for specific urban and suburban areas.

A publication of the California State Office of Noise Control reports on noise exposures within various communities in Southern California.

Major noise exposures in Los Angeles County come generally from transportation sources either aircraft, railway or automobile/truck operations . A detailed description of the various aspects of transportation noise may be found in the Los Angeles County General Plan Noise Element and EIR.

Stationary noise sources from industrial, commercial and/or residential activity also contribute significantly to the existing noise environment. Examples of such stationary noise sources include rock and gravel plants, auto repair shops and gas stations, lawn mowers, leaf blowers, animals, air conditioning units, swimming pool heaters and filter motors, construction projects, restaurant exhaust systems and outdoor music concerts/festivals.

5.7 - Land Use

Urban Form -

The county is part of a major international megalopolis extending along the coast from Santa Barbara, California to Tijuana, Mexico and spreading into the desert to Palm Springs. The heart of the megalopolis, a metropolitan area of more than 1,000 square miles, lies in the southern portion of the county. Metropolitan Los Angeles is bounded by powerful natural features. The sea

limits the metropolis on its southwestern margin while its landward edges are defined by ranges of steep hills and mountains. In 1975, an estimated 1,133 square miles of the county's land surface was devoted to some form of urban land use, and more than 97 percent of this urbanization was located south of the San Gabriel Mountains.

The county's development has been most intense in the basin and inland valley areas. Although development has also encroached into the hilly areas, the densities there are generally lower. Hillside development has occurred along the southwestern foothills of the San Gabriel Mountains, in the foothills of the San Jose, Chino and Repetto Hills, within the Santa Monica Mountains, in the Baldwin, Signal, Dominguez and Palos Verdes Hills, and Santa Susana Mountains, especially in the canyons extending from the Santa Clarita Valley. Urban development is also found along portions of the Malibu coast and in the Antelope and Santa Clarita Valleys. Historically, urban uses expanded from established areas such as Los Angeles, Long Beach, and Pasadena into the surrounding agricultural areas with expansion resulting in a decrease in agricultural production.

Residential uses within the county account for only 16 percent of the total land surface but over 55 percent of the county's total land area devoted to urban uses. Although residential development is spread throughout the county, it is primarily concentrated in the basin and inland valleys. Large scale development of single family detached units with varying lot sizes has contributed to urban sprawl. High rise apartments or condominiums are found along a corridor between the Central City and Santa Monica, Marina del Rey, Long Beach, Pasadena, and portions of the San Fernando Valley.

To serve residential areas, commercial facilities (shopping centers, stores,

offices, etc.) have developed along highways or in shopping complexes near transport routes. Although commercial uses are usually dominant, they cover only two percent of the county's total land surface, and less than seven percent of the urbanized area. Since the sixties, retail commercial uses providing substantial parking facilities have tended increasingly to locate in suburban mall-type shopping centers near residential uses. Intense concentrations of commercial facilities are found in the Central City, Wilshire Corridor, Encino, Long Beach, Pasadena, Pomona and other major centers.

Industrial growth has occurred along major transportation routes. Concentrations exist around Los Angeles International Airport, the Los Angeles-Long Beach Harbor area, south central Los Angeles, and along railroad routes through portions of the San Gabriel and San Fernando Valleys. As is the case for residential development, most industrial plants have a low profile - single story with large landscaped parking areas.

Recreation Areas and Open Space -

Los Angeles County contains an estimated 901,000 acres of permanent public and private open space, of which approximately 54,000 acres are located within urban areas. Most remaining open and vacant land lies within desert, mountain and hillside environments including portions of the Santa Monica, Santa Susana, and Verdugo Mountains, the Malibu Coastline, the Puente, Chino and San Jose Hills and the Santa Clarita and Antelope Valleys. About 14,200 acres of this open land is privately owned, while the remainder is publicly owned.

5.8 - Transportation

The county's transportation system (facilities and vehicles) consists of five major modes: roadways (automobiles, buses, trucks), rail, water, air and

pipelines. All of these modes are important movers of freight, while only two--roadways and air--are major movers of people. Each mode has varying degrees of capacity and different service characteristics. Buses are the major public carrier, trucks handle the major share of local freight movement and air, water, rail, and trucks handle the long distance freight and passenger movement. Although not a major mode, bikeways are another component of the system. Nearly 25 percent of all the facilities and vehicles of the transportation system are necessary for goods movement which includes the distribution of foodstuffs, consumer products, manufacturing components, industrial goods, building products, energy and services.

The greater Los Angeles area contains a vast highway system directly linking the harbor and airports to a road system that extends throughout the United States, Canada and Mexico. The county's roadways, which consist of freeways and expressways, serve more than 99 percent of the daily movement of the county's residents.

The local and arterial highways are basically laid out in a grid system, where terrain and other features permit, to facilitate the transportation of people and goods within and between neighborhoods and communities. These facilities also interchange traffic with the freeway system and serve a subordinate function as collectors and distributors of the traffic from that system.

Automobiles -

The pattern of development in the county has interacted primarily with automobile use. The automobile has become the overwhelming transportation mode, as indicated by the extensive highway and freeway system. By reducing the driving time from outlying areas to job centers, the freeway system has promoted the lower density development of outlying areas as opposed to higher

density development in the central areas. A 1967 survey by the Los Angeles Regional Transportation Study (LARTS) found that about 88 percent of the people-moving trips in the county were made by private automobile.

Buses -

Buses provide municipal public transit as well as intercity transportation. The county's public transit service is provided by the Southern California Rapid Transit District (SCRTD), as well as several other municipal transit operators. Municipal bus service is particularly important to the transit dependent--especially the economically disadvantaged, the elderly, the handicapped and the young. Those using public transit have until recently received increasingly lower levels of service. Since 1973, SCRTD and the other municipal bus companies have improved transit service levels and increased ridership. The SCRTD bus fleet has been increased, operational improvements have been made and coverage and frequency have been expanded, the zone system has been simplified, and coordination and cooperation between the SCRTD and other bus companies has been improved. However, fares are again rising and some services are being cut back.

Trucks -

The principal means of goods movement into and out of the county as well as within the county is by truck. Trucking functions range from pick-up and delivery trucks privately owned by firms and businessmen, to specialized vehicles such as those used in garbage collection or construction, to trucks used for personal transport (e.g., campers, pick-ups, etc.) to intercity carriers of all weights and sizes. The intercity segment of the industry is in direct competition with railroads, pipelines and air freight.

Rail -

Railroads cross the county carrying freight to terminal or staging areas where it is transferred to trucks, cargo ships or other trains for trans-shipment to world, state, intercounty or local destinations. Some of these facilities also accommodate passenger service to destinations within and out of state. These facilities serve an important function in transporting people and goods into and from this county.

The county is served by three transcontinental rail freight lines beginning at the harbor complex: the Atchinson, Topeka and Santa Fe; the Southern Pacific; and the Union Pacific. In addition, portions of the county are served by two local, primarily switching, carriers: Los Angeles Junction Railway and the Harbor Belt Line, serving Los Angeles Harbor and the Wilmington area.

Passenger rail service in California is provided by AMTRAK. In the past, passenger demands for intercity rail service had been decreasing because their services were less competitive when compared to the auto, bus or airlines. In general, passenger service had previously operated at a loss. However, due to increased traffic congestion in recent years, passenger rail service is viewed as being a practical solution. This is evidenced by the Metro-Rail, the Long Beach to Los Angeles Transit Rail, and Century Boulevard Light Rail projects currently under construction.

Water -

Another vital component of the county's transportation system is its harbors. The county's two major international seaports--Los Angeles and Long Beach ports--are located within the world's largest man-made harbors. In addition to the two commercial ports, there are seven small craft harbors which are

the City of Santa Monica, the City of Avalon, Marina Del Rey, King Harbor Marina, Alamitos Bay and the Ports of Los Angeles and Long Beach.

The megaport of Los Angeles and Long Beach covers 46 miles of commercial waterfront. Together the seaports constitute the largest port on the West Coast. These ports are modern and have good interfaces with rail and highway transportation. As is the case with most ports, they are owned and operated by public entities.

Air -

The county is favored with one of the best aviation systems in the world with a total of 19 public use airports. Only three of these facilities may be considered major airports: Los Angeles International (LAX), Hollywood-Burbank and Long Beach. Palmdale Airport is planned to become the county's second largest commercial airport, but does not presently serve this function.

LAX, the third busiest airport in the nation in terms of passengers carried, is the region's primary air carrier airport. It is served by a total of 71 domestic and international airlines. LAX served 41,417,867 passengers in 1986 and air cargo has more than doubled in volume over the last decade.

Hollywood-Burbank Airport was purchased by the Cities of Burbank, Glendale and Pasadena with the intent to continue air carrier operations. The ownership is based on a joint powers agreement. The airport at one time was the only privately owned commercial airport.

Long Beach Airport served 1,118,100 passengers in 1986. The City of Long Beach had expressed a reluctance in accepting any more air carrier service, and envisioned the airport's role as serving only general aviation activity and limited air commuter service. This has not been the case as passenger service

has tripled since 1972.

Pipelines -

There are presently four for-hire pipelines in California that are under the jurisdiction of the Public Utilities Commission. Pipelines are an important component of the county's transportation network, largely because of the region's role in the production of crude oil and natural gas. Oil fields located in the county account for about 15 percent of the state's production of oil, and 5 percent of the state's gas output. Pipelines also play an essential role in the movement of water and liquid wastes. The exact quantity of various materials being moved by pipeline within the county is currently unavailable. In 1972, almost 17 percent of the nation's intercity freight tonnage was moved by pipeline.

Bikeways -

Bikeways presently exist in many incorporated and unincorporated areas of the county. The many existing miles of lanes, paths and/or routes are not totally interconnected due to the local nature of this mode of travel. Utilization rates of bicycle facilities range from 50 to 500 bikes per day. Such a mode is best suited for trip distances up to four miles.

5.9 - Aesthetics

Scenic qualities are highly subjective, depending upon the perceptions of the individual viewer. Oil wells or billboards may be scenic to some persons while not to others. However, most people would probably agree that Los Angeles County has been richly endowed with a physical setting which offers its citizens and visitors a variety of scenic expriences--a complex mixture of climates, topography, flora and fauna, together with a rich historical and cultural heri-

tage. The mountain peaks of the San Gabriels rising over 10,000 feet and the blue waters of the Pacific Ocean, together with sandy beaches, are prominent features of different natural regions within the county. These regions are characterized by a variety of topographic features and native vegetation and include such diverse areas as the Coastal Lowlands, the Central Mountains and the Northern Desert. Stands of pine, fir and other evergreens cover the higher slopes of the Central Mountains, while the floor of the desert in the Antelope Valley is carpeted with fragile wildflowers during the early spring months. Memorable and distinctive scenery provides residents with a sense of place and identity, heightening the feeling of belonging and instilling a sense of uniqueness and civic pride.

The urban setting also provides a wealth of scenic resources ranging from early California missions to modern skyscrapers. There are many examples of works by Frank Lloyd Wright, Greene and Greene and other notable architects which, together with other buildings recognized by professional groups as having local and nationwide significance, offer outstanding examples of many architectural styles. Numerous buildings of a cultural nature also display excellence in both landscaping and design; this is evident in many of the museums, amphitheatres, schools and parks located throughout the county. The public buildings of the civic and music centers create a vivid urban landscape which is especially picturesque when the mountains are visible in the background.

Many roads have been built which connect the urban concentrations south of the San Gabriel Mountains with the natural regions in other parts of the county. The beautiful scenery visible from these routes has been recognized for many years. Mulholland Drive and Highway, for example, have been considered a valuable scenic resource of the Los Angeles area for over half a century. This highway runs partly along the crest of the Santa Monica Mountains connecting

Cahuenga Pass in Los Angeles with Leo Carrillo Beach state park on the Pacific Ocean, and offers not only spectacular views of the seemingly endless urban pattern, but also panoramic views of the ocean, steep canyons, bold geologic formations and many significant ecological areas. Many other roads are also located in areas of diverse and attractive scenery, such as the Angeles National Forest and the San Andreas Rift Zone.

Numerous roads within urban areas also have high scenic value. Some such as Wilshire Boulevard in the Miracle Mile area, are noted for their adjacent "high rise" commercial structures. Other roads, such as Sunset Boulevard in the Pacific Palisades area, traverse attractive, well-maintained residential areas.

5.10 - Cultural/Archaeological/Historical/Paleontological Resources

Cultural Resources -

The urban setting of the County provides a wealth of scenic resources ranging from early California missions to modern skyscrapers. Numerous historical sites have been identified by State and local groups; the State alone has officially designated nine historical parks and numerous historical monuments in Los Angeles County. There are several examples of works by Frank Lloyd Wright, Greene and Greene, and other notable architects which, together with many other buildings, are recognized by professional groups as having local and nationwide significance, or offering outstanding examples of various architectural styles.

Archaeological -

Native American people living in the county prior to the arrival of Europeans, developed a complex pattern of resource exploitation. The complexity is reflected in the artifacts, features and sites which make up the only tangible remains of their cultures, which existed for thousands of years. Major sites

containing data for the reconstruction of these systems still exist in many aras of the county. Using sophisticated and precise excavation and analytical techniques, local archaeologists have reconstructed major portions of culture history within the county over a period of 7,000-11,000 years, and are beginning to collect data on earlier periods. However, no comprehensive archaeological survey of the entire county has been carried out.

Historical -

Many monuments to our historical past still exist in Los Angeles County forming an essential link with the present. There are missions and the remnants of the great ranchos which once covered Southern California, and the routes of early explorers and historical trails. There are also stagecoach stations, forts, railroad depots, and the homes of prominent people whose lives are a part of the area's history.

Generally, the sites which have been designated by the State or Federal government or local groups represent some aspect of local history and include residences, churches, public buildings and commercial structures which are distinguished for their design or architectural style, historic trees, battlefields, military campsites, stations along historic transportation routes, and places associated with historically notable persons, activities or events. In many instances, these sites have been marked by a plaque or monument. In some instances, several historical sites are located near one another--e.g., neighborhoods of Victorian houses, homogeneous business districts, and early settlements. Several sites which are not individually of outstanding significance may as a group be considered historically significant. Historical sites are located, for the most part, in the accessible urbanized areas of the county, with the largest number in an east/west belt across the southern county, clustering primarily in the Hollywood and Central Los Angeles areas.

Paleontological -

Los Angeles County is one of the richest areas in the world for both fossil marine vertebrates and land vertebrates from rocks deposited over the last 25 million years. Perhaps one of the richest and most famous fossil deposits is located at Rancho La Brea. Although Rancho La Brea has been highly publicized, there are many other areas of Los Angeles County which contain equally important fossil occurrences.

The richness of fossils in the county is due to several major series of events in the geologic history of the area. During Miocene and Pliocene time (between five and twenty-five million years ago) most of what is now the greater Los Angeles basin and the surrounding hills (Santa Monica Mountains, Repetto Hills, San Jose Hills, Puente Hills, Palos Verdes Hills, the San Fernando Valley, the Simi Hills, Santa Susana Mountains, the Santa Clarita Valley and mountains surrounding) were all submerged below the Pacific Ocean. Thousands of feet of sand, mud and other materials were deposited on the ocean bottom. Marine mammals and shore birds were buried in these deposits as they died and sank to the bottom. Through time, many of these specimens became fossilized.

During Pleistocene (Ice Age) times, forces within the earth elevated much of this area above the ocean and formed hills and mountains where the ocean bottom and valleys once existed. Erosion cut down through these older sediments as they were being uplifted to form the terrain we see today.

5.11 - Reference

A more detailed description of the overall environmental setting for Los Angeles County can be found in Section 5.0 of the County of Los Angeles General Plan Environmental Impact Report, March 2, 1979. See also Chapter III - Regional Environmental Setting of the 1984 Regional Transportation Plan, Volume 4, Environmental Impact Report.

6.0 - ENVIRONMENTAL IMPACT ANALYSIS/MITIGATION MEASURES

6.1 - Introduction

The environmental impact analysis in this EIR will include discussion of potential effects, both beneficial and adverse, that may result from adoption and implementation of the CoHWMP. The discussion will also emphasize feasible mitigation measures to avoid or substantially lessen potentially significant adverse effects.

A copy of the Initial Study of Environmental Factors, Los Angeles County Hazardous Waste Management Plan (Appendix A) is attached to the EIR to provide the basis for limiting the impacts discussed.

The EIR does not provide detailed technical data, but rather incorporates this data by reference where appropriate (see Chapter 3.0 METHODOLOGY).

One of the most important aspects of the CoHWMP is to provide the long-range planning context for siting new and expanding existing off-site facilities to manage hazardous waste to assure they will be sited, constructed, permitted and available when needed. The CoHWMP indentifies generalized areas likely to conform to the siting criteria and the criteria include factors to be carefully evaluated when specific sites are submitted for permitting.

Even though the generic need for hazardous waste management facilties has been determined in the needs and assessment chapter (Chapter 5) of the plan's Technical Supplement (Volume II), the precise number, size, location and type or nature of facilities to be built is not known at this time. This will be known only when actual proposals are made for individual hazardous waste management facilities at specific sites. Individual project proposals for new facilities or expansion of existing facilities, at specific sites, will require

in-depth specificity in the site-specific environmental assessment, evaluation and documentation required by CEQA, as well as a site-specific siting assessment, health risk assessment and permitting process. In addition, the formation of a citizen's advisory committee to address all of the citizens' concerns is required.

While new or expanded hazardous waste management facility construction and operation may have some site-specific adverse impacts, the overall result is expected to improve the way hazardous waste is managed and will be positive or beneficial.

The enumeration of potentially adverse effects in this EIR attempts to avoid discussion of those impacts which are speculative.

6.2 - Design and Operational Characteristics

To facilitate the discussion of potentially significant impacts and feasible mitigation measures, it is appropriate to first review the design and operational characteristics of the six-basic types of hazardous waste management facilities.

The six-basic types of facilities to be reviewed are: 1) transfer and storage facilities, 2) treatment facilities, 3) recycling facilities, 4) solidification and stabilization facilities, 5) incineration facilities, and 6) repositories for treated residuals.

Design variations of these basic types are common in managing specific types of hazardous wastes, but the general descriptions will illustrate the principles involved in each type. Each type of facility could either be established as a separate facility, or could serve as one component of a larger integrated complex.

1. Transfer and Storage Facilities

Hazardous waste transfer and storage facilities are essential to the overall management of hazardous wastes and it is probable that one or more of each should be located in the County. Typically, such facilities serve as collection stations for small quantities of waste, combining like wastes when the quantities become large enough to be economically shipped to a treatment or recycling facility. Such facilities are usually located in urban-industrial areas at or near the source or waste generation, although they may also be located in rural areas where waste volumes are typically too small from a single generator to justify shipping costs to a treatment or recycling center.

Hazardous wastes may arrive at transfer and storage stations by rail and by vacuum, flatbed or tank trucks. The waste manifest is examined and wastes are analyzed to confirm their identity, degree of hazard and compatibility with other wastes. They are then separated as liquids, solids and sludges according to their overall chemical characteristics and kept separate from incompatible wastes. Drums may be transferred directly out of the transporting vehicle to the storage area or they may be transferred by forklift from a receiving area to the storage buildings.

Uncontainerized dry, solid hazardous waste is transferred to bins or tanks by dump truck and, in some cases, by conveyor systems. Uncontainerized liquids, sludges, or slurries are transferred by pipeline from tank trucks to the appropriate storage tanks. Wastes are subsequently transported from the center to a treatment or recovery facility, an incinerator or a stablization unit.

A typical transfer station occupies from one to ten acres and has between two and ten employees. Its annual waste throughput of 10,000 to 40,000 tons could involve weekly incoming traffic ranging from 6 to 75 or more trucks, or 3 to 38 or more railcars.

A typical waste transfer and storage facility will be distinguished primarily by its storage tanks, surrounded by protective dikes. In many industrial areas, these tanks and the warehouse-style truck transfer building often would be visually compatible with their surroundings.

2. Treatment Facilities

The example discussed here is for aqueous hazardous waste treatment facilities. A small liquid waste treatment facility might cover only 3 acres, whereas a large one might require 30 acres. Facilities using advanced waste treatment technologies typically employ from 15 to 40 trained workers. An advanced facility can treat up to 200,000 tons of liquid wastes annually. This would imply the arrival of at least 185 tanker trucks or 120 railcars every week. Smaller treatment facilities would have commensurately lower traffic volumes. An aqueous treatment center visually resembles a typical municipal sewage treatment plant.

Water contaminated with hazardous wastes arrives at a treatment facility from a transfer station and/or storage facility, from a liquid organics recovery facility or, at times, directly from large waste-generating industries. Various processes are then employed to remove heavy metals, reactive ions, and organic matter. Acid and alkaline wastes undergo pretreatment in separate unloading basins. The segregated wastes are then neutralized and/or oxidized to precipitate metals or to detoxify

selected chemicals. Treated wastewater effluent is discharged either to a sewer or to an evaporation pond. The sludges that are formed are sent to an incinerator or to a biological waste converter, or are stabilized for subsequent land disposal.

3. Recycling Facilities

The example discussed is for organics recovery facilities. Facilities for recovery of liquid organics, solvent distillation, and oil rerefining have many similarities to a small refinery or petrochemcial plant. To the ordinary observer, the many storage tanks, pipelines, or distillation towers would be indistinguishable from a modern products refinery. Occasional venting of steam from distillation equipment would simply reinforce this impression.

The typical liquid organics recovery facility could cover between one and ten acres. Employment would range from 15 to 60 individuals. The size of waste throughput and resulting truck or rail traffic would be roughly equivalent to that found at a typical waste transfer and storage facility.

Liquid hazardous wastes containing solvents, oils, and other organics arriving at the recovery facility are analyzed at an on-site laboratory to identify those constituents valuable enough to recycle. Decisions are made regarding those components which will be reclaimed, incinerated, or converted to usable or stable residues. Solvents and oils are separated and clarified, respectively, by physical processes such as distillation/condensation and filtration. Toxic vapors are destroyed by incineration or collected on adsorbents. The purified solvents and oils are stored, recycled, blended into fuels, or shipped out as

industrial raw materials. Residues or sludges from this facility are incinerated, extracted for metals, or "stabilized" prior to land disposal. Liquid wastes remaining after recovery procedures have been completed are then sent to an aqueous waste treatment facility for further processing.

4. Solidification and Stabilization Facilities

Some hazardous wastes that cannot be recycled, treated, or destroyed can be solidified or "stablized". Liquid wastes and sludges can be solidified by use of special additives. Inorganic sludges can be fixed by adding lime and fly ash. Other wastes can be encapsulated in asphalt or plastic (polymer) coatings for lengthy storage or ultimate retrieval.

A solidification facility would be seen as a large industrial building with several tall silos attached for storage of dry chemicals. These facilities range in size from 1 to 10 acres and employ from 5 to 30 individuals. A wide range of waste throughput is again possible, from a low of 5,000 tons per year of material to be solidified, up to as much as 100,000 tons per year. Transportation requirements would vary as a function of the quantities of waste actually being handled.

5. Incineration Facilities

Organic liquids and solids that cannot be reclaimed economically may be burned in incinerators. Liquid feedstreams are filtered and solids shredded prior to entry of the wastes into the incinerator. Satisfactory destruction efficiency requires adequate temperature, time, and turbulence. Thus, hazardous waste incinerators include well-designed primary

heating and secondary after-burner zones. While a fixed-hearth burner with liquid injection can be used for liquids, a rotary kiln has the added advantage of good mixing and residence time for solid hazardous wastes. Many waste streams have sufficient heat of combustion to reduce the cost of incineration through recovery of heat as process steam or by cogeneration of electricity.

A typical rotary kiln incinerator facility has some obvious visual and aesthetic impacts. The tall smokestack is evident, as are storage tanks and support buildings. Incinerator operations typically require from 4 to 10 acres of land and employ from 2 to 12 individuals. A small incinerator might destroy 5,000 tons of waste per year, necessitating only perhaps 5 truckloads of waste per week. A large incinerator could handle up to 100,000 tons annually, and be served by 92 trucks per week.

6. Repositories for Treated Residue

A repository for treated residues would be sited only in an area meeting the geologic and other requirements of the State Water Resources Control Board for Class I waste management units for hazardous waste (Section 2531, et seq., of Title 23, California Administrative Code). Additionally, a repository for treated residues would have the features described below:

The material accepted for deposition would be subject to three principal limitations:

1. Only solid materials resulting from the treatment of hazardous wastes are acceptable;

2. No free liquids would be accepted; and

3. Hazardous organic wastes would not be acceptable unless stabilized or solidified and encapsulated.

The design and operation of the facility would be such as to keep the residuals as dry as practical to prevent the formation of leachate.

By adhering to the above, a residuals repository is set apart from the traditional Class I facility, and is more environmentally benign.

The Southern California Hazardous Waste Management Project commissioned a conceptual design and feasibility study of a 200-acre facility to receive and deposit 160,000 cubic yards of residual material per year for 25 years. The design and operational characteristics presented in this study provide a good example of a typical repository for treated residuals.

Three distinct types of cells were devised for residual emplacement, as follows:

1. Main Cells: Four cells of approximately 530 feet by 1,600 feet dimensions and having a total height of 60 feet would be constructed. Construction would proceed downgradient at a pace commensurate with the receipt of residuals.

2. Weather Cells: Three cells of approximately 120 feet by 800 feet dimension and having a total height of 20 feet would be constructed. A mobile, permanent roof structure would be used to cover the active deposition area to prevent precipitation from reaching the residues.

3. Special Purpose Cells: Three cells sized and operated as wet

weather cells would be constructed to dispose of residuals which are judged to have a relatively high potential for recovery at some future time to obtain the values of metals or other recoverable materials contained in the wastes.

Major cells would be operated during the normal dry weather in order to promote drying of the residual prior to final cover. During periods of rain, temporary sheeting would be used to keep the cells dry. Permanent closure would be accomplished as the residuals are received.

The concept for a residuals repository applies only to those solid materials resulting from the treatment of hazardous wastes. Generally, the residual treatment solids will be inorganic and will be oxidized byproducts of various waste treatment processes. They may also have high concentrations of heavy metals which may be stablized into a relatively nonreactive form.

The residuals are solids, their organic content is low, their toxic inorganic components are relatively insoluable, and are among the most inert and least mobile wastes presented for land disposal. Thus, a properly designed and well operated residuals repository should present very low environmental risk.

6.3 - Beneficial Effects

Implementation of specific action recommendations of the CoHWMP will determine the extent which the County's overall hazardous waste management strategy policies can achieve the Plan's goals and objectives.

Provided these recommendations are implemented in an effective and timely manner, the potentially beneficial effects are as follows:

1. An expeditious and timely mechanism for siting, processing and granting permits for needed hazardous waste management facilities will be developed and implemented.

2. Environmentally sound off-site storage, transfer, recycling, treatment/incineration and disposal facilities to effectively manage the hazardous waste generated in the County will be sited, constructed and permitted so as to be available when needed.

   Off-site treatment and disposal facilities are a critical component of the CoHWMP. While large volume generators may be able to afford to treat their wastes on-site, off-site commercial facilities are the only viable option for most small and medium sized businesses, even after the implementation of waste minimization efforts to the fullest extent possible. Without off-site facilities, many small volume generators could be forced out of business, or into illegal storage and dumping of wastes.

   Specific incentives and interventions to promote facility funding and use have been identified in a study report - "Economic Impacts Analysis Project for Hazardous Waste Treatment Facility Funding and Use in Los Angeles County" (see Bibliography). This project was jointly sponsored and funded by the County of Los Angeles Department of Public Works, the County Sanitation Districts of Los Angeles County, and the Southern California Coalition for Hazardous Materials Management.

3. The volume and hazard of hazardous waste generated in the County and requiring off-site treatment and disposal will be reduced by source reduction, process modification, substitution (raw products/end

products), material recovery and recycling, and increased on-site treatment.

4. The long-term health, environmental and economic risks of hazardous waste land disposal will be reduced or limited by:

   - Elimination/prevention of permanent land disposal of untreated hazardous waste and utilization of residuals repositories for the long-term storage of dry hazardous residuals remaining after treatment;
   - Prevention of air emissions via permit requirements for use of best available control technology and specified environmental protection measures; and
   - Requiring treatment by more economic and technically feasible alternative technologies which are protective to public health and natural environments.

5. The threat to public health and the environment from increased illegal disposal of hazardous waste and the use of outmoded disposal practices (i.e., land disposal of untreated hazardous waste) will be reduced/eliminated.

6. The County's economic growth will not be hampered by limiting development of industry which generates hazardous waste.

7. A central, computerized system for monitoring on-site and off-site hazardous waste generation and management data and methodology to project future needs for hazardous waste management facilitiew will be developed.

8. The safe transport of hazardous wastes from the sources of generation

to the point of management will be improved by strong enforcement of existing law utilizing the hazardous waste manifest system, vehicle safety and emergency response preparedness requirements.

9. Public education programs will be developed to inform and educate the public regarding hazardous waste management issues as well as promotion of waste minimization efforts.

10. Mechanisms will be developed to facilitate and encourage effecitve public involvement/participation in the planning, siting and permitting of hazardous waste management facilities.

6.4 - Adverse Effects

Potentially significant adverse effects are those which may arise from the siting, construction, operation, closure and post-closure maintenance of hazardous waste management facilities. For the purpose of this EIR, this is accomplished by limiting discussion to general overall impacts that can logically be expected by virtue of the general characteristics of location, design, construction, operation and maintenance of the six-basic types of hazardous waste management facilities. The appropriate mitigation measures are also identified. However, as noted in Chapter 3.0 METHODOLOGY, Section 3.1 of this EIR, CEQA requires that individual project proposals for new hazardous waste facilities or expansion of existing facilities must undergo rigorous site-specific environmental assessment and documentation.

A specific action recommendation of the Plan is for the county and cities to promote and expedite development of transfer, storage, recycling, solidification, stabilization and treatment facilities close to the areas of hazardous waste generation. The CoHWMP (Vol. II, Figure 5-9) designates general areas as

suitable for the location of new hazardous waste management facilities and further notes that other locations may be equally suitable as determined on a case-by-case evaluation of suitability based on the HWMFSC.

6.4.1 - Impact Analysis/Mitigation Measures

The goals, objectives and recommendations of the CoHWMP provide only general guidance for the specific actions that ultimately serve to implement the CoHWMP. Therefore, only a brief, qualitative analysis is provided to point out or describe potential environmental effects.

The impact analysis is in relation to the design and operational characteristics of the six basic types of hazardous waste management facilities reviewed in Subsection 6.3. The factors identified in the Initial Study which may have a potentially significant impact are covered for each factor by discussion of those general impacts which can logically be expected relative to the location, design, construction, operation and maintenance of such facilities and including measures to prevent or mitigate these impacts.

All hazardous waste management facilities, by their very nature, can potentially produce adverse environmental impacts. While the specific impacts may vary as a function of the facility's specific characteristics and actual wastes to be treated, impacts from modern hazardous waste treatment facilities typically resemble those found at industrial facilities engaged in manufacturing or petrochemical processing. In some instances, federal and state regulations require more stringent pollution controls at hazardous waste treatment facilities than at industrial plants where many of the wastes are actually generated.

All hazardous waste management facilities in Los Angeles County must be designed

and operated to incorporate environmental control measures which conform to the standards, regulations and permit conditions of the U.S. Environmental Protection Agency (EPA), the South Coast Air Quality Management District (SCAQMD), the State Department of Health Services (SDOHS), and the Regional Water Quality Control Board (RWQCB) for both Los Angeles and Lahonton Regions. They must also comply with the Uniform Building Code, Uniform Fire Code and the National Fire Codes. Standards and regulations of the EPA concerning hazardous waste facilities are imposed in California by the SDOHS. Regulatory inspection, monitoring and enforcement requirements are set by the EPA, SDOHS, SCAQMD and RWQCB, as well as local land use agencies and those local agencies involved in the issuance of discretionary and ministerial permits.

All facilities must sample and analyze incoming waste materials and outgoing effluent discharges. The operations plan upon which the hazardous waste facility's permit is based must identify appropriate measures to separate treatable from untreatable wastes, and to separate incompatible materials.

The environmental impacts that would be associated with implementation of the CoHWMP are discussed below for each of those factors identified in the initial study, along with applicable mitigation measures.

A. Earth

Construction of any facility can cause disruptions, displacements, compaction and overcovering of soil and impacts may vary depending on a facility's characteristics. The stability of a facility may be affected and is a major concern, especially if the facility is used to store hazardous waste.

In order to assure structural stability, facility designers must establish and follow seismic design criteria during project design. The criteria should be based on the type and importance of the structures and the degree

of acceptable risk. It is reasonable to adopt criteria calling for a design that would resist earthquake ground motion having a moderate to low probability of occurring during the economic life of the plant. Acceptable criteria would be those contained in the Uniform Building Code.

A foundation investigation including soils boring and soils testing on the selected site shall be performed where deemed necessary. From this investigation, a foundation design adequate to withstand the level of risk of liquefaction or other soils hazards established, such as slope instability, can be developed.

More detailed and specific information regarding prevention and mitigation are contained in the reference documents sited in Chapter 3.0 - METHODOLOGY for siting, land use and permitting.

The stability of a facility, a major concern for permanent facilities or facilities storing liquids, is related to the potential for movement of the earth along the fault zones. The Initial Study determined that adoption and implementation of the CoHWMP would not result in exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure or similar hazards. The basis for that determination is that the U.S. EPA and SDOHS require, as part of the hazardous waste management facility permit, a seismic activity evaluation of the site. The evaluation must show that either no faults or no lineations suggesting the presence of a fault are located within 3,000 feet of facility or if faults or lineations are located within 3,000 feet of the facility, no faults are located within 200 feet of the active portion of the facility as determined by a comprehensive geologic analysis of the site. Furthermore, facilities located in areas of potential rapid geological change including landslides, mass

movement, subsidence and liquefaction are required to have engineered design safety features to assure structural stability. The location of residuals repositories or new disposal facilities in areas of potential rapid geological change are prohibited. The location of disposal facilities, including residuals respositories, is also prohibited in areas subject to tsunamis, seiches and storm surges from 100 year flooding.

B. Air

Air pollution impacts may occur at hazardous waste management facilities as a result of emissions from the various types of equipment used at these facilities. The character of emissions involved depends on the type of hazardous waste being handled at the facility and the design and type of equipment in use.

The SCAQMD has a specific set of regulations that identify the emission levels that must be met by new sources or by modifications to existing facilities. These emission levels have been established so that National Ambient Air Quality Standards (NAAQS) are maintained or progress is made toward reaching the standards. Based on the NAAQS standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and total suspended particulate matter, the South Coast Air Basin has been identified as being in nonattainment for all except sulfur dioxide and lead. Because of this, further reductions must be made through the application of strict controls.

The SCAQMD requires a permit for all equipment in the basin unless exempted by Rule 219. Applicants for a hazardous waste management facility with air emissions must obtain both a Permit to Construct and a Permit to Operate from the SCAQMD. In addition, the pre-construction New Source Review (NSR) requirement for use of Best Available Control Technology or Lowest

Achievable Emission Rate (LAER) applies to any permit unit which will cause an emission increase of a non-attainment air contaminant. Additional requirements will also be triggered, if threshold limits identified in the regulations are exceeded, which will require obtaining offsets to balance the increased pollutant levels.

It should be noted that individual proposals for hazardous waste management facilities will require a site specific determination of estimated emission rates by type of contaminant from all parts of a facility, including during transport for both "criteria" and "toxic" pollutants; and computer modeling analysis showing ground level concentrations of these pollutants.

A cumulative health risk assessment of the toxic pollutants from the individual proposed facility for compliance with the SCAQMD proposed Rule 1401 will also be required to determine the overall health impact of a facility.

Air pollution impacts may also occur as a result of site preparation and construction of hazardous waste management facilities. Site preparation consists mainly of grading operations and material transfer using heavy-duty equipment and possibly demolition of existing structures.

Dust and other particulate matter may be a problem during this phase. A major source of emissions is the exhaust from the use of heavy-duty vehicles. Either gasoline or diesel-powered vehicles may be used during both the site preparation and construction of facilities. Emissions from such vehicles during travel to and from the site will also occur, as well as from the use of any stationary engines used on-site.

The following measures can be employed to prevent or mitigate these air quality impacts:

During cleaning, grading, earth moving or excavation:

1. Control fugitive dust by regular watering, paving construction roads, or use of other dust preventive measures as delineated in SCAQMD Rule 403,

2. Maintain equipment engines in proper tune.

After cleaning, grading, earth moving or excavation:

1. Seed and water until grass cover is grown,

2. Spread soil binders,

3. Wet the area down, sufficient enough to form a crust on the surface with repeated soaking, as necessary, to prevent dust being picked up by the wind,

4. Sweep streets, should silt be carried over to adjacent public thoroughfares.

During construction:

1. Use water trucks or sprinkler systems to keep all areas where vehicles move damp enough to prevent dust being raised when vehicles are leaving the site,

2. Wet down areas in late morning and after work is completed for the day,

3. Use low sulfur fuel for construction equipment.

Phase and schedule construction activities to avoid high ozone days.

Discontinue construction during second stage alert days.

Additional environmental protection measures are specific to the kind of hazardous waste management facility. Some of the principle impacts and corresponding air and water pollution control measures that are covered by requirements of the SDOHS, SCAQMD or by a RWQCB are summarized in Tables 6-1 through 6-4.

Transportation activity from the point of hazardous waste generation to and from the various types of hazardous waste management facilities may increase noise, congestion and air emissions along the transportation route and in the vicinity of the facility. Overall, however, the impacts upon the community can be expected to be minimal, given modern emission control technologies and good management procedures are practiced. An emergency response plan would be an integral part of a facility's basic hazardous waste management plan and County-wide emergency response plans will serve to prevent or mitigate environmental impacts from transportation associated hazardous waste/material incidents/spills.

In addition to the environmental protection measures for control of air pollution already discussed, or noted in Tables 6-1 through 6-4, some general examples of technology to prevent or mitigate air pollution impacts include:

- Operational controls at conveyor belts, tank and bin stacks and equipment vents.

- Storage tanks and transfer lines utilize vapor recovery and vacuum transfer.

- Dust and vapor collection or containment by dust handling and vapor

TABLE 6-1

Environmental Protection Measures at
Transfer and Storage Facilities

Type of Measure	Description of Measure
Sampling and analysis procedures	Ensure that runoff is confined through automatic analysis of drainage tied into alarms, and an electronically activated shut-off system.
Inspections	Daily Inspect drums and tanks for leaks. Inspect level of liquid in tanks and lagoons. Inspect seams, valves, and pumps. Inspect the overall condition of tanks. Annual Water-fill and pressure-test tanks to detect any leakage.
Air pollution controls	Install and operate controls at the waste-transfer building. . Baghouse to control particulate emissions. . Vapor recovery system or carbon canisters to adsorb organic vapors. Maintain closed storage of all volatile materials. Control emissions at tanks containing volatile materials. . Scrubbers to cleanse vapors. . Inert gas blanketing or floating roofs. Source tests to determine/verify emission types and rates from applicable equipment.

TABLE 6-2

Environmental Protection Measures at
Organics Recovery Facilities

Type of Measure	Description of Measure
Sampling and analysis	Sample and analyze air emissions at distillation, refining, and fuel-blending facilities.
Monthly calibrations	Calibrate process control and emissions control devices.
Air pollution controls	Recycle vapors from boiling liquids through condensers for cooling, liquifaction, and subsequent use. Cool unusable residuals for subsequent incinceration or burial elsewhere. Use vacuum equipment to prevent leaks. Nonvolatile liquid blanketing. Source tests to determine/verify emission rates from applicable equipment. Storage/treatment tanks and tank trucks containing organic liquids should be vented to some type of control system to reduce working and breathing losses.
Water pollution controls	Install a structurally sound containment structure impervious to and compatible with wastes at the facility, and monitor its adequacy. Monitor nearby groundwater. Prevent spillovers by using level-detection devices on tanks and lagoons tied into pump cutoff switches and alarms.

TABLE 6-3

Environmental Protection Measures at
Aqueous Waste Treatment Facilities

Type of Measure	Description of Measure
Sampling and analysis	Conduct automatic analysis of effluents, tied into electronically activated emergency shutoffs.
	Sample all products of processes, and all vapors.
Air pollution control	Aerate odorous wastes in a building equipped with a foul-air scrubber.
	Source tests to determine/verify emission types and rates from applicable equipment.
Inspections	Daily
	Inspect emergency shut-off and safety devices.
	Update process control and operational data.
	Weekly
	Inspect construction materials at chemical reactors.
	Inspect dikes around tanks.
	Monthly
	Calibrate process control devices and emissions control devices.

TABLE 6-4

Environmental Protection Measures at Incinerators

Type of Measure	Description of Measure
Sampling and analysis	Conduct automatic analysis of gases for toxic chemicals, carbon monoxide, oxides of nitrogen and sulfur, and opacity, tied into electronically activated emergency shut-off mechanism. Periodically analyze residues from incineration.
Air pollution controls	Use an afterburner or catalytic oxidizer to heat exhaust gases from the combustion area to a temperature that converts organics to inorganics and inert gases. Use an electrostatic precipitator or baghouse to remove particulates from exhaust gas. Use a mist of water and chemicals in a scrubber to remove chemicals from exhaust gas. Source tests to determine/verify emission types and rates from applicable equipment. Use BACT and T-BACT for Regulation XIII (NSR) and proposed Rule 1401 requirements, respectively, including NO_x controls and temperature and residence time requirements to reduce toxic emissions.
Inspections	Every 15 Minutes Inspect combustion and emissions control devices. Hourly Inspect plume from stack (use an opacity meter). Daily Inspect safety devices. Inspect emergency shutoffs of feed streams. Inspect pipelines and pumps. Update process control and operational data (e.g., temperature, pressure, and flow rates). Monthly Calibrate process control devices and emissions control devices.

recovery systems utilizing flexible boots, hoods, blowers, ducts, baghouses, scrubbers, and associated equipment.

- Maintain tight seals at storage tanks, valves, flanges and fittings to avoid releases of liquids.

- Use of inert or pacified materials to prevent corrosive chemicals.

- Monitoring of air emissions from treatment facility equipment and from the encapsulation process at solidification/stabilization facilities, as required by SCAQMD.

- Use of cyclones and electrostatic precipitators or baghouses at incinerator facilities to trap fly ash and aerosols to avoid their entry into the atmosphere. Scrubbers or alkaline additives may be required to limit acidic gases to acceptable levels.

- Careful operation of incinerators is mandatory. This includes good monitoring of the quality of the waste feed stream, the stack exhaust, and the "bottom" residue.

- Monitoring leachate to ensure hazardous constituents will not migrate when placed in a residuals repository.

- Development of adequate emergency response plans as required by the operation permit.

- Monitoring of water effluent from solidification ponds to assure water discharge standards are met.

C. Water

Hazardous discharges of chemicals could result from accidental spillage of

hazardous waste in transport to or from hazardous waste management facilities. Additionally, hazardous waste management facilities can contaminate water quality if improperly sited, designed and maintained. However, the siting criteria have specific guidelines to protect surface and groundwater supplies by requiring that all facilities be constructed in areas posing minimal threats. Specific criteria regarding the proximity to water supply sources, major aquifer recharge areas, permeability of surface materials, and existing groundwater quality are all part of the CoHWMP's HWMFSC to protect the water quality.

Furthermore, before any permits can be issued, the project must comply with extensive environmental review and stringent requirements from regulatory agencies including, but not limited to, the U.S. Environmental Protection Agency, the State and County Department of Health Services, State Water Resources Board, and the California Regional Water Quality Control Board.

Additional measures and/or restrictions are also required by the SDOHS to protect against water contamination. State law requires new hazardous waste management land disposal facilities including residuals repositories to be immediately underlain by natural geologic materials which have a permeability of not more than 1 X 10-7 cm/sec, and which are of sufficient thickness to prevent vertical movement of fluids including waste and leachate. Further, the geologic materials shall be continuous and shall not be interbedded with materials of greater permeability.

Residuals repositories should be prohibited within areas known or suspected to be supplying principal recharge to a regional aquifer, as defined in adopted general, regional, or State plans. Other facilities should also be discouraged from being located in such areas. If located in these areas,

these facilities must provide properly engineered spill containment features, inspection measures, and other environmental protection controls.

Subsurface storage/treatment facilities and residuals repositories should locate outside of areas where surficial sediments are principally highly permeable materials such as sand and gravel.

All other facilities should have engineered structural design features, common to other types of industrial facilities. These features would include spill containment and monitoring devices.

All hazardous waste management facilities in the State must have emergency response equipment available for control and cleanup of spills. In addition, facilities handling flammable wastes must have on hand fire extinguishers and other fire control equipment. Further, all facilities have to protect nearby surface and groundwaters by undertaking certain measures around all storage tanks and in all areas where spills can occur, including:

- Dikes or curbing around the area to contain the spill;
- Drains inside and outside buildings to transport spillage to ponds or covered tanks;
- Channels outside of these spill containment areas to move any spillage to a common collection pond or holding basin; and
- Lighting to allow detection of leaks and spills at night.

Residuals repositories are prohibited in areas where the highest anticipated elevation of underlying groundwater is 5 feet or less from the wastes.

Hazardous waste management facilities will require a National Pollutant Discharge Elimination System (NPDES) permit and/or Waste Discharge

Requirement (WDR) from the State Water Resources Control Board (SWRCB) if the facility could potentially affect surface or groundwater quality through waste discharges.

Facilities that discharge treated wastewater to surface waters require a NPDES permit. Facilities that will discharge treated wastewater to land, or that have surface impoundments, waste piles, or land treatment or disposal facilities, require WDRs. Additionally, all facilities from which may be discharged in a diffused manner require WDRs.

Specific regulations concerning the water quality aspects of waste discharges to land were adopted on November 27, 1984. Title 23, Chapter 3, Subchapter 15 "Discharges of Waste to Land" identifies siting criteria, construction standards, water quality monitoring requirements, and closure and post-closure maintenance procedures for surface impoundments, landfills, waste piles and land treatment facilities.

More detailed and specific information regarding prevention and mitigation are contained in the reference documents cited in Chapter 3.0 - METHODOLOGY for siting, land use and permitting.

D. Plant and Animal Life

The construction of hazardous waste management facilities may require the removal of vegetation and animal habitat. However, no significant impact on unique biological resources or rare species is anticipated.

The SDOHS has criteria which prohibits the siting of hazardous waste management facilities in certain environmentally sensitive areas unless certain measures are taken to prevent the plant and animal life in that given area.

No facilities should be located in current wetland areas, as defined in adopted general, regional, and State plans, unless: a) industrial usage is permitted by the local government's land use planning or zoning, b) no additional filling is required, and c) fish, plant, and wildlife resources can be maintained and enhanced in a portion of the site, or preserved elsewhere in the area. Furthermore, a facility shall not be located in habitats of threatened or endangered species, as defined in adopted general, regional, or State plans, unless it can be demonstrated that the habitat will not be disturbed and the survival of the species will be assured, or similar habitats can be maintained in a portion of the site, or preserved elsewhere in the region by the facility developer.

Location of hazardous waste management facilities in areas used for agricultural uses should be avoided. When siting hazardous waste management facilities in these areas, overriding public service needs must be demonstrated.

It is not anticipated that implementation of the CoHWMP will result in any change in the diversity of species or numbers of species of any plant or animal life nor a reduction of any unique, rare or endangered species of plants or animals since facilities, with the exception of residual repositories, will be located in urban areas not possessing significant habitats for threatened endangered species.

E. Noise

It is anticipated that the usage of hazardous waste management facilities may increase the noise level in those areas where they will be located. However, with an adequate buffer zone, specified transportation route, and if necessary, the restriction of operating hours, the effects can be

substantially mitigated. Residuals repositories will be located in rural areas where adequate buffers can be provided. All other hazardous waste management facilities will be located in industrial areas where they will be compatible to the adjacent ambient noise levels or rural areas where adequate buffers can be provided.

F. Light and Glare

A hazardous waste facility may increase the light and glare in the areas where it is sited. However, through the use of buffer zones, restricted operating hours, compatible surrounding land use and special low glare paints, these effects can be rendered to the point where light and glare from any facility is minimal. Therefore, no significant impact is expected.

G. Land Use

Surrounding land uses may be affected due to the development of hazardous waste management facilities. However, the State of California requires by law that new hazardous waste disposal facilities be at least 2,000 feet from any permanent place of residence or other sensitive land uses such as Federal and State lands, unless the owner proves that a 2,000-foot buffer zone is not required to protect public health and safety.

The County of Los Angeles also prohibits construction of buildings or structures on or within 1,000 feet of a land disposal facility which contains decomposable material/waste unless the facility is isolated by an approved natural or man-made protective system.

Furthermore, no facilities should be sited so as to preclude extraction of minerals necessary to sustain the economy of the State.

Facilities which handle hazardous waste should strive to locate in industrial,

commercial, or specially zoned lands to minimize the risks associated with the transportation and disposal of hazardous waste. Where applicable, lands should be rezoned to site hazardous waste facilities close to their point of generation.

In Southern California, city and county governments have broad authority to plan for and regulate land use. Cities and counties are required by State law to adopt a General Plan to govern the physical development of lands in their jurisdictions. Zoning ordinances generally consist of text and maps specifying areas, or zones, designated for such basic uses as residential, commercial, industrial, and agricultural. There are many variations within each category oriented to a more narrow range of land use (i.e., residential, density, and type). For each zone, the text of the zoning ordinance tyically includes:

- An explanation of the purpose of the zone;
- A list of the principal permitted uses;
- A list of uses allowed by a conditional use permit; and
- Specific development standards such as lot size, density, building type, and setback.

A conditional use permit provision allows a local government to review and place conditions on an individual project to ensure that the project is compatible with the General Plan and the zoning ordinance, and does not affect neighboring land uses. This type of zoning ordinance provision can also be used to require the modification of an existing use permit should an existing land use be modified to a certain extent.

A local agency can also issue a "zoning variance" if special physical characteristics (e.g., lot size, shape, topography, location, or surround-

ings) deprive a parcel of the privileges that parcels in the same zoning classification have. A variance cannot be used to grant privileges to a parcel that are not available to other parcels in the area that are similarly zoned, and "use variances" cannot be issued for uses not permitted by a zoning ordinance.

If a proposed project in a specific location is not permitted by the zoning ordinance, then a zone change (or rezoning) must be obtained by the applicant. A zone change may require the General Plan to be amended so that it is consistent with the zoning ordinance.

The approval of General Plan amendments, zone changes, zoning variances, modifications to existing use permits, and conditional use permits by the local agency are discretionary decisions and as such are subject to the requirements of the California Environmental Quality Act (CEQA) and public hearing requirements under State planning laws. The CEQA requires the lead agency in the permitting of hazardous waste management facilities, generally the county or city agency responsible for approving the land use permit, to conduct an Initial Study of the proposed facility. If one or more potential significant environmental effects are identified, then an Environmental Impact Report (EIR) is required. If the agency determines that the facility will not have any significant environmental effects associated with it, or that all the significant effects can be mitigated, then a negative declaration is required.

It is not anticipated that implementation of the CoHWMP will result in any substantial alteration of the present or planned land use of areas within incorporated cities or unincorporated areas within the County of Los Angeles since they will be located in industrial areas, as indicated on the map

(Figure 5-9, CoHWMP). Nor is it expected that implementation of the CoHWMP will result in conflict with adopted environmental plans and goals of the communities within the County. As has been noted in Chapter 3.0 - METHODOLOGY, state law requires consistency with State, Regional, City Hazardous Waste Management Plans and General Plans.

H. Risk of Upset/Hazards to Human Health

Wherever hazardous materials are handled, stored or transported, there exists a risk of explosion or the release of hazardous substances which may create a potential health hazard. This risk exists whether or not the CoHWMP is implemented. However, implementation of the CoHWMP may increase the relative risk in those areas where the facilities are sited. Since new facilities will be in industrial areas where hazardous wastes are generated, the potential for hazardous waste spills may be reduced by requiring shorter transportation of the wastes for storage, treatment or disposal. The risk of hazard from illegal dumping may also be reduced where more facilities are available to handle waste in close proximity to where it is generated. In addition, the requirement for business plans, emergency response plans and programs and similar requirements as conditions of operating permits for hazardous waste management facilities serves to prevent such upsets or to mitigate them effectively when they occur.

The siting of a hazardous waste facility may pose a risk to the human health of the surrounding area. The HWMFSC are intended to prevent or mitigate such risks. Risk assessments shall also be made when permitting a facility. These assessments will consider the physical and chemical characteristics of the specific type of wastes that will be handled, the design features of the facility, and any need for buffering residential areas or other sensitive areas from adverse emissions from a proposed facility.

Setbacks may be required, though the burden of justifying the distance should lie with the host community, based on studies and/or proposed land uses.

Engineering or natural buffers (berms, buildings, trees, fences, etc.) may be required as part of the land use permit to buffer effects of fire, explosion, or release of vapors should they occur.

Additional services may be required based on the types of wastes handled at the facility. Particularly for facilities handling corrosive, ignitable, reactive, or volatile toxic wastes, additional design features or on-site emergency services may be necessary. It may be necessary for the facility operator to supplement the capabilities of local emergency services either by maintaining additional emergency response equipment on site or by financially aiding the upgrade of local services.

Additional facility design features, such as dry chemical sprinkler units, isolation of flammable liquids storage tanks, and handling of explosive wastes in depressions to shield surrounding areas may have to be installed to limit the impact of accidents at the source.

The implementation of the CoHWMP is not anticipated to result in an increased risk of upset from explosion or the release of hazardous substances nor the creation of any potential health hazard which cannot be effectively prevented or mitigated.

I. Transportation/Circulation

It is anticipated that the transportation/circulation in and around a hazardous waste facility will increase above the amount which existed before the facility was sited. The possible use of local residential

streets may increase, increasing the risk of accidents along a given route. However, the intent is to use highways and to avoid use of such streets.

Also, facilities other than residuals repositories are to be located so as to minimize distances to major transportation routes designed to accommodate heavy vehicles, if possible, near the sources of waste generation.

Local roads which must be utilized may need to be upgraded by increasing load capacity and width, improving traffic controls or building truck-only lanes or routes. A facility developer may also build a direct access road to avoid minor routes.

Congestion and increased traffic circulation can be mitigated through use of restricted operating hours to reduce congestion during peak morning and late afternoon hours.

Hazardous material/waste incidents/spills which do occur can be effectively controlled/mitigated where the emergency response plans and programs are implemented and maintained in accordance with the CoHWMP.

J. Public Services

Agencies exist already to provide public and emergency services which may be associated with the implementation of the CoHWMP (e.g., Fire, Police and Health Departments).

These agencies may be affected by an upset, spill or fire in the hazardous waste management facility. However, the agencies have or are in the process of securing adequate equipment to deal with emergency incidents and requirements for business plans, emergency response plans and programs will serve to prevent or mitigate such incidents should they occur. Public service agencies will continue their upgrading efforts, including ongoing training,

education and procurement of additional response equipment, as needed.

K. Utilities

With the construction of hazardous waste management facilities, there may be increased discharges to the sewer system after the wastes have been treated to meet the federal, state, and local jurisdictions' discharge requirements. The discharge of adequately treated hazardous waste from such facilities should not have a negative impact on the existing sewer system if the capacity exists in the sewers and the discharge meets the requirements stipulated by the Federal Clean Water Act, State Water Recources Board, California Regional Water Quality Control Board and local agencies.

Any additional sewer capacity needed to accommodate hazardous waste management facilities will be evaluated and, if deemed necessary, provided by either the facility proponent or the city through a discharge tax. Specific needs will be determined when individual projects are proposed for specific sites.

It is not anticipated that implementation of the CoHWMP will result in a significant need for additional utilities.

L. Aesthetics

It is not anticipated that implementation of the CoHWMP will result in any significant impact on community aesthetics such as the obstruction of any scenic vista or view from existing residential areas, public lands or roads.

A buffer zone and aesthetic considerations, such as landscaping berms, block walls, overfills, etc., are required for any hazardous waste management facility under existing requirements. Facility operations can be screened whenever possible from outside viewers to reduce negative visual impacts

associated with hazardous waste facilities. If possible, hazardous waste facilities are to be located in industrial zones where they are compatible with surrounding buildings.

M. Cultural, Archaeological, Historical and Paleontological Resources

The HWMFSC include specific criteria or provisions to assure that prehistoric or historic archaeological and paleontological sites/resources are protected and not altered or destroyed. The likelihood of encountering historical, archaeological, or paleontological artifacts in an industrial urban setting is minimal. Residuals repositories, planned in the more rural areas, could affect some resources. However, the impacts that may result from the development of any hazardous waste management facilities and mitigation measures will be addressed pursuant to CEQA for the individual facilities as they are specifically developed.

7.0 - SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED

The "Initial Study of Environmental Factors - Los Angeles County Hazardous Waste Management Plan" (Appendix A) has assessed and identified those environmental factors for which there may be potential environmental effects.

These potential adverse effects were evaluated and appropriate mitigation measures identified in Chapter 6.0 of this EIR.

After analysis of these potential environmental effects and measures to prevent or mitigate them, it is concluded that implementation of the CoHWMP will not result in any significant impacts which cannot be effectively mitigated. Therefore, there are no identified significant effects which cannot be avoided.

8.0 - DESCRIPTION OF ALTERNATIVES

The California Government Code, Section 66780.8 authorizes a county to prepare a county hazardous waste management plan for the management of all hazardous wastes produced in the county, in lieu of requiring the preparation of a hazardous waste element of the county solid waste management plan.

The Los Angeles County Board of Supervisors have formally elected to prepare the CoHWMP in lieu of a Hazardous Waste Management Element of the County Solid Waste Management Plan (CoSWMP).

The CoHWMP was developed pursuant to the requirements of Article 3.5, Chapter 6.5, Division 20, of the California Health and Safety Code (Chapter 1504 of the State Statutes of 1986, AB 2948 - Tanner, and Chapter 1167 of the State Statutes of 1987, SB 477 - Greene) and in accordance with the State Department of Health Services' Guidelines for the Preparation of Hazardous Waste Management Plans (June 30, 1987).

Since the County of Los Angeles is required to prepare either a Hazardous Waste Management Element for its CoSWMP or a CoHWMP meeting State requirements, consideration of a "no project" alternative is not appropriate and not legally acceptable.

The CoHWMP contains all of the mandated elements including an analysis of the potential in the County for recycling and reducing the volume and hazard of hazardous waste at the source of generation (waste minimization).

The CoHWMP is based on maximizing all aspects of the waste minimization concept. The extent to which waste minimization can be effectively implemented will affect markedly the volume and hazard of the hazardous waste generated and the need for hazardous waste management facilities.

Assuming the emphasis for waste minimization is effectively implemented and new economic incentives for on-site hazardous waste management are provided, the need for additional off-site hazardous waste management facilities can be held to a minimal level, as necessary.

If on-site hazardous waste management does not keep pace, it will result in increasing pressure on existing off-site hazardous waste management facilities, as well as those planned off-site facilities, by requiring them to handle greater volumes, and will eventually result in the need for additional off-site facilities.

The future need (long term) for hazardous waste management facilities will be affected by the construction of the planned and proposed facilities (see Volume II - Technical Supplement, Chapter 5, Needs Assessment) as well as by a number of other factors including:

- Changing waste stream;
- Changing waste generation rates;
- Acceptance of out-of-county waste other than those currently imported;
- Future enactment of more stringent laws and regulations; and
- Potential redirection of waste from off-site to on-site waste management facilities.

The CoHWMP does contain two different scenarios with respect to estimating the need for hazardous waste management facilities. Scenario A assumes that none of the planned and proposed facilities identified in Table 5-3 of the CoHWMP are constructed by 1990 and therefore would result in the need for siting, construction and operation of more facilities than Scenario B which assumes that all of the planned and proposed facilities and their proposed capacities are on line by 1990.

To the extent that neither of these plan alternatives are effectively implemented, then both would result in the potential for more long-term problems in managing hazardous waste.

The CoHWMP, if implemented as proposed, will result in development of needed off-site facilities in urbanized areas near the point where hazardous waste is generated, except for long-term storage facilities and residuals repositories which are recommended to be developed in rural areas. Where these recommendations are not followed, then longer transportation could result in increased spills and illegal dumping and their resultant environmental impacts as well as possibility for incompatible land use impacts.

The CoHWMP identifies general geographical areas which might be considered to be suitable for hazardous waste management facilities. As the Plan is implemented, specific sites will be evaluated in more detail. It is possible that during this process, alternative sites may be identified.

Since the statutory provisions of law and mandatory State guidelines cited above specify the required elements which have been incorporated into the CoHWMP, alternatives other than those noted above have not been considered.

9.0 - RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The discussion of environmental effects in this report is based on the assumption that all of the CoHWMP's projections, policies--both written and mapped--and recommended actions will be promptly implemented in a fashion designed to fully achieve all goals prior to the year 2005. Thus, the CoHWMP environmental evaluation is based primarily on long-term impacts. However, where appropriate, short-term impacts are also discussed under the various impact categories.

Where facility development potential can occur as shown in the CoHWMP's map of areas potentially suitable for the development of hazardous waste management facilities, the options of future generations with regard to the use of this land would be for the most part unchanged. Most facilities are expected to be developed in industrial areas and therefore compatible with surrounding land use. A residuals repository would eliminate the capability for land use as a building site but would be easily converted to a park or recreational area and therefore beneficial to the potential surrounding urban uses.

The direct impacts of the CoHWMP on both current and future generations would be beneficial. The siting criteria in the CoHWMP provides for the protection of any and all environmentally sensitive areas, areas of potential natural or mineral resources, as well as surrounding land uses through means of buffer zones or restrictions on development. The County's economic growth will not be hampered by limiting development of industry which generates hazardous waste. Most of the major impacts on the long-term productivity of the environment cannot be quantified at this time as specific densities and designs are not part of this plan. Therefore, while the anticipated impacts are discussed, the magnitude of the impacts will be completely evaluated at the project level

when specific proposals along with their respective environmental assessment and documentation are submitted.

The CoHWMP includes many policies aimed at safeguarding long-term productivity while balancing it with short-term needs. The facility siting criteria contained in Appendix 6A of the CoHWMP, in particular, attempt to safeguard natural resources (e.g., hillside land, significant ecological areas, agricultural land) and the environment in general against immediate exploitation for short-term gain at the expense of long-term preservation of these valuable amenitites. The plan also recognizes mineral resources and seeks to encourage compatible land uses or preservation in such areas.

Another important safeguard in terms of long-term productivity is the environmental assessment required by the California Environmental Quality Act at the project level. Evaluation of each project's impact will help maintain an integrated land use pattern and identify individual impacts and ways to mitigate them.

Overall, the long-term productivity should not be hampered in any way. The CoHWMP is designed not only to ensure that hazardous waste is managed by safe, responsible methods, but also to protect the long-term productivity.

10.0 - ANY SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH COULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE ADOPTED

Implementation of the CoHWMP will not cause irreversible long-term environmental changes by allowing the siting of hazardous waste management facilities in areas which are suitable for such uses.

The CoHWMP's siting criteria provide restrictions for controlling facility siting in environmentally sensitive areas so as to reduce and/or eliminate the impact on natural resources. Further environmental protection will be provided through the environmental assessment process at the project level. By identifying the more localized impacts, suitable mitigation measures can be developed to minimize and/or reduce them to an acceptable level.

11.0 - GROWTH-INDUCING IMPACT OF THE PROPOSED ACTION

The CoHWMP is not considered to be growth-inducing since it does not provide for population growth or additional homes. The CoHWMP does contain population growth projections, based on employment and population increases developed by Security Pacific Bank and the Center for Continuing Study of the California Economy, but these are only used to determine the volume of hazardous waste which is expected to be generated in the future. The CoHWMP does provide for additional jobs if identified needed facilities are constructed. However, the total number of jobs which would be created is insignficant when compared to the total employment in Los Angeles County.

Also, projections for future residential, housing and employment growth to the year 2010 have been adopted by the County of Los Angeles and the Southern California Association of Governments. Each of these organizations prepared Environmental Impact Reports to analyze the consequences of the projected growth.

12.0 - REFERENCES/ORGANIZATIONS AND PERSONS CONTACTED

REFERENCES

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16. Southern California Hazardous Waste Management Authority, Project Description and Notice of Preparation of an EIR for Regional Hazardous Waste Management Plan for Southern California, September 23, 1987.

17. State of California, California Administrative Code, Title 22, Division 4, Chapter 30, Minimum Standards for Management of Hazardous and Extremely Hazardous Waste.

18. _____, California Administrative Code, Title 23, Chapter 3, Subchapter 15, Discharge of Waste to Land.

19. _____, California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control.

Organizations and Persons Contacted

- California Department of Health Services

  Toxic Substances Control Division:

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- South Coast Air Quality Management District:

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- Incorporated Cities, County of Los Angeles

Copies of the Draft CoHWMP and the Notice of Preparation EIR-CoHWMP, which included the Initial Study of Environmental Factor, were sent to each of the 85 incorporated cities in the County

APPENDIX A

INITIAL STUDY OF ENVIRONMENTAL FACTORS
LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

Attached is the Initial Study of Environmental Factors, Los Angeles County Hazardous Waste Management Plan, including: Attachment A - Hazardous Waste Management Siting Criteria and Attachment B - Characteristics of Facilities Pertinent to Siting.

ERRATA:

Errors have been corrected in the "Initial Study" as follows:

- Parenthetical reference to Attachment B, page A-6, has been corrected to refer to Attachment A under 1. Earth, and 3. Water.

- A number of extra pages were included in the initial distribution of this document, by error, in Attachment B - Characteristics of Facilities Pertinent to Siting. These extraneous pages have been removed from the copy of this Initial Study in Appendix A of this EIR.

NOTE:

It must also be noted that in response to comments from the South Coast Air Quality Management District (SCAQMD) regarding the Hazardous Waste Management Facility Siting Criteria (HWMFSC), changes will be made in the Final County Hazardous Waste Management Plan's HWMFSC concerning the criteria for protection of air quality in non-attainment areas. "Non-attainment air contaminant" will be substituted for "criteria pollutant" and "PM-10" will be substituted for "total suspended particulate" in the Definition subsection of the criteria. Under the Significance subsection of the criteria, "computer modeling and a toxic risk assessment may be required to evaluate a facility's potential impact on air quality" will be added. The Criteria subsection will be amended to delete the last clause - "emissions from such facilities are significantly lesser than those associated with transportation of hazardous wastes not of this area" and substitute "emissions credits are real, permanent and attainable".

INITIAL STUDY OF ENVIRONMENTAL FACTORS

LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

I. Location and Description of Project

A. Location

All of the Los Angeles County.

B. Purpose

The purpose of the project is to establish policies and guidelines for proper planning and management of hazardous waste on a County-wide basis as mandated by Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner) and as amended by Chapter 1167 of the 1987 State Statutes (SB 477, Greene).

C. Description of Work

The project consists of preparing the Los Angeles County Hazardous Waste Management Plan (CoHWMP) pursuant to the requirements of Article 3.5, Chapter 6.5, Division 20 of the California Health and Safety Code, (AB 2948, Tanner and SB 477, Greene). Under the requirements, of the law, the CoHWMP must include, but not be limited to, the following:

"1. An analysis of the hazardous waste stream generated in the county, including an accounting of the volumes of hazardous wastes produced in the county, by type of waste, and estimates of the expected rates of hazardous waste production until 1994, by type of waste.

2. A description of the existing hazardous waste facilities which treat, handle, recycle, and dispose of the hazardous wastes produced in the county, including a determination of the existing capacity of each facility.

3. An analysis of the potential in the county for recycling hazardous waste and for reducing the volume and hazard of hazardous waste at the source of generation.

4. A consideration of the need to manage the small volumes of hazardous waste produced by businesses and households.

5. A determination of the need for additional hazardous waste facilities to properly manage the volumes of hazardous wastes currently produced or that are expected to be produced during the planning period.

6. An identification of those hazardous waste facilities that can be expanded to accommodate projects needs and an identification of general area for new hazardous waste facilities determined to be needed.

   In lieu of this facility and area identification, the plan may include siting criteria to be utilized in selecting sites for new hazardous waste facilities. If siting criteria are included in the county hazardous waste management plan, the plan shall also designate general areas where the criteria might be applicable.

7. A statement of goals, objectives, and policies for the siting of hazardous waste facilities and the general management of hazardous wastes through the year 2000.

8. A schedule which describes county and city actions necessary to implement the hazardous waste management plan through the year 2000, including dates for carrying out the actions.

In addition to the required elements of the plan, the county may include a description of any additional local programs which it determines to be necessary to provide proper management of hazardous wastes produced in the county. These programs may include, but are not limited to, public education, enforcement, surveillance, transportation, and administration."

The CoHWMP will address the above issues with the intent of providing a means for proper planning and management of hazardous wastes on a County-wide basis. It will offer programs and establish siting criteria (see Attachment A) for development of needed hazardous waste management facilities to effectively serve the public need.

The CoHWMP will also designate general geographic areas within the cities and the County unincorporated areas where the siting criteria might be applicable. However, the CoHWMP will not designate specific sites for facility locations since any subsequent hazardous waste facility proponent must show a proposed project to be consistent with the CoHWMP as well as undergo a rigorous site-specific assessment and permitting process at local, State and Federal levels including addressing all environmental concerns as mandated by the California Environmental Quality Act.

The CoHWMP shall establish a need for all types of hazardous waste management facilities and recommend that local jurisdictions assume the responsibility for proper management of hazardous waste generated within their jurisdiction.

A description of possible hazardous waste management facilities extracted from Technical Reference Manual of the guidelines for the preparation of Hazardous Waste Management Plans, State Department of Health Services, June 30, 1987 is shown in the Attachment B.

II. Compatibility with General Plans

1. Upon approval of the CoHWMP, the County's General Plan will be amended concurrently to reflect the CoHWMP.

2. Cities are required to incorporate the applicable portions of the CoHWMP, by reference, into their general plan within 180 days after approval of the CoHWMP by the State Department of Health Services or Comply with the others provisions of Section 25135.7 (c) of the State Health and Safety Code (Chapter 1167 of the State Statutes of 1987, SB 477, Greene).

III. Environmental Setting

Los Angeles County is characterized by a diverse environmental setting. Basically, the County may be divided into four natural sub-regions: northern desert, central mountains, coastal low-lands, and offshore islands.

The northern desert includes the Antelope Valley portion of the County. This area consists of desert plains, hills, buttes, and dry lake beds. The major urban areas in the Antelope Valley are in the Cities of Lancaster and Palmdale and the adjacent unincorporated areas. Except for the foothills and buttes, the area is generally level and contains scattered vegetation. The northern deserts have a distinctive cover of grasslands and desert and alkali sink shrubs. Pinon-juniper woodland, desert sagebrush, and chaparral blanket the southwestern desert fringes. Soils both beneficial and problem for urban and agricultural use may be found in the Antelope Valley. Generally, the unable soils of the area lie in a broad belt stretching from Neenach on the west to the San Bernardino County boundary on the east and extending down from the central mountains on the south to the dry lake beds northerly of Lancaster.

The central mountains consist of steep rugged terrain of the San Gabriel and Santa Susana Mountain ranges. Higher elevations and north slopes are covered with coniferous and oak forests and woodlands with chaparral belts, sagebrush, and grassland zones between them and the developed lowlands. Broad valleys exist in this area. The level areas are found primarily in the Santa Clarita Valley, Acton, and Agua Dulce areas. The middle and upper portions of the areas contain alluvial soils and are subject to flood hazards limiting the areas use.

The coastal lowlands are a highly urbanized area that contains approximately 97 percent of the County's population. There are broad areas of soils which are beneficial for both agricultral and urban development. Major soil problems are present on the margin of the coastal plain. The urbanized areas include the relatively level coastal plain and the San Gabriel and San Fernando Valleys. These areas are interrupted by the Santa Monica Mountains, Palos Verdes Hills, and Puente/San Jose Hills. The coastal lowlands have been largely cleared of native vegetation and are covered with various species introduced from other areas including a number of agricultural crops. Only the Transverse Hill Chain retains its natural cover of grass, coastal sage and chaparral.

Finally, the offshore islands include Santa Catalina and San Clemente Island. Both islands are mountainous Santa Catalina soils are dominantly loam to clay and contain various types of vegetation. San Clemente Island is under Federal ownership and use.

The urban setting of the County provides a wealth of scenic resources ranging from early California missions to modern skyscrapers. Numerous historical sites have been identified by State and local groups; the State alone has officially designated nine historical parks and numerous historical monuments in Los Angeles County. There are several examples of works by Frank Lloyd Wright, Greene and Greene, and other notable architects which, with many other buildings are recognized by professional groups as having local and nationwide significance, or offering outstanding examples of various architectural styles. Numerous buildings of a cultural nature also display excellence in both landscaping and design. This is evident in many of the museums, amphitheaters, schools, and parks located throughout the County. The public buildings of the Civic Center and the Music Center and developing skyline of downtown Los Angeles create a vivid urban landscape which is especially picturesque when the mountains are visible in the background.

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Discussion of Environmental Factors

IV. Identification of Environmental Effects

1. Earth

Construction of any hazardous waste facilities can cause disruptions, displacements, compaction and overcovering of soil and impacts may vary depending upon the facility's characteristics. Construction of any facilities on poor soil or areas having poor geology can lead to contamination of groundwater if special provisions are not considered and mitigation measures are not provided.

Therefore, to ensure the structural stability of hazardous waste facilities, the siting criteria established by the Plan (see Attachement A) shall be fully adgered to and the requirements of the Federal, State and local jurisdiction must be fully complied with.

2. Air

Facilities located in nonattainment areas with air emission in excess of established limits will require pre-construction review under New Source Review requirements and a permit from the South Coast Air Quality Management District to construct and operate. This permit and the requirements stipulated by the U.S. Environmental Agency, the State Department of Health Services, and the State Air Resources Board will substantially mitigate any negative impact on air quality.

3. Water

Hazardous discharges of chemicals could result from accidental spillage of hazardous waste in transport to or from facilities. Additionally, hazardous waste management facilities can contaminate water quality if improperly sited, designated and maintained. However, the siting criteria have specific guidelines to protect surface and groundwater supplies by requiring that all facilities be constructed in areas posing minimal threats. Specific criteria regarding the proximity to water supply sources, major aquifer recharge areas, permeability of surface materials, and existing groundwater quality are all part of the plan to protect the water quality (see Attachment A).
Furthermore, before any permits can be issued, the project must comply with extensive environmental review and stringent requirements from regulatory agencies including, but not limited to, the U.S. Environmental Protection Agency, the State and County Department of Health Services, State Water Resources Board, and the California Regional Water Quality Control Board.

4,5. Plant and Animal Life

The construction of hazardous waste management facilities may require the removal of vegetation and animal habitat. However, no significant impact on unique biological resources or rare species is anticipated. Though no specific sites have been identified for future sites, the siting criteria recommends that significant ecological areas sensitive areas, such as wetlands, habitats of threatened and endangered species, agricultural and natural lands should be avoided.

6. Noise

It is anticipated that the usage of hazardous waste management facilities will increase the noise level in those areas where they will be located. However, with an adequate buffer zone, specified transportation route, and if necessary, the restriction of operations time, the effects can be substantially mitigated. As such residuals repositories will be located in rural areas where adequate buffers can be provided. All other hazardous waste management facilities will be located in industrial areas where they will be compatible to the adjacent ambient noise levels or rural areas where adequate buffers can be provided.

7. Light and Glare

All hazardous waste management facilities are required to be designed and operated to incorporate environmental control measures. These measures include lighting which would allow for the detection of leaks and spills at night and for security reasons.

8. Land Use

Surrounding land uses may be affected due to the development of hazardous waste management facilities. However, siting criteria (See Attachment B) provides for a buffer between waste facilities and areas of concentrated population particularly residential developments, schools and hospitals. Additionally, with the exception of residuals repositories, these facilities are recommended to be located primarily in existing industrial zoned areas and, therefore, no significant negative impact is expected.

10. Risk of Upset

Although the release of hazardous substances or explosions may occur without the proposed development of Hazardous waste management facilities, the proposed facilities may increase the relative risk to those communities where the facilities are sited.

13. Transportation/Circulation

Public concern over the transportation of hazardous waste is heightened when there is an increase in the traffic around the locale of hazardous waste management facilities. The Plan proposes specific on-site criteria and mitigation measures whereby the risk and potential for incidents could be reduced. These include the locating of facilities adjacent to major routes, upgrading road conditions, improving traffic controls, providing training to emergency response personnel, requiring certification of vehicles and haulers, and ensuring that the equipment is maintained in good working order. Hazardous waste transportation could also be curtailed during periods of high traffic volumes.

14. Public Services

Agencies and companies providing emergency services such as health, police and fire departments may be affected. The fire and sheriff/police personnel are trained in dealing with hazardous waste and have recently increased their equipment and personnel.

15. Utilities

With the construction of hazardous waste management facilities, there mayl be increased discharges to the sewer system after the wastes has been treated to meet the Federal, State and local jurisdictions discharge requirements. The discharge of adequately treated hazardous waste from such facilities should not have a negative impact on the existing sewer system if the capacity exists in the sewers and the discharge meets the requirements stipulated by the Federal Clean Water Act, State Water Resources Board, California Regional Water Quality Control Board and local agencies.
Any additional sewer capacity needed to accommodate hazardous waste management facilities will be evaluated and mitigation measures will be provided, if necessary, during the permitting process for these facilities.

17. Human Health

Problems relating to past improper management and disposal of hazardous waste have resulted in widespread concern regarding the use of landfills and the location of treatment facilities. Continued improper and illegal dumping increase the risk of contaminating the environment and pose serious threats to the health of present and future generations. The siting of hazardous waste facilities should not have a negative impact on the health and/or safety of the residents of Southern California because, they will provide a safer and controlled means to dispose of hazardous wastes, prevent illegal dumping, and reduce the threats of untreated hazardous waste and their discharges.

18. Aesthetics

A buffer zone and aesthetic considerations, such as landscaping berms, block walls, overfills, etc. are required for any hazardous waste management facilities under the existing requirements. Operations will be screened from outside viewers and daily covers will be provided.

20. Cultural, Archaeological Historical and Paleontological Resources

The likelihood of encountering historical, archaeological, or paleontological artifacts in an urban setting is minimal. Residuals repositories, planned in the more rural areas could affect some resources. However, the impacts that may result from the development of any hazardous waste management facilities, and mitigation measures will be addressed pursuant to CEQA for the individual facilities as they are specifically developed.

21. Mandatory Findings of Significance

The Plan will address many issues of hazardous waste management and provide potential solutions and mitigation measures to both the public and private sectors for resolving some areas of difficulty while maintaining the protection of public health and safety and environment as the main goal. These issues include compliance with regulations and requirements, the controversial issue of siting and permitting of new facilities, the risks involved in transportation of hazardous waste and the management of the hazardous waste produced by small quantity, industrial, and commercial generators and private households. By its very nature, the Plan will have a significant beneficial impact since it recommends a means to manage hazardous waste in a manner which is protective to the health of the public and natural environmental resources. However, individual projects that will result form the Plan may result in their own environmental impacts and will be subject to their own environmental assessment.

Since the objective of this Plan is to establish waste management policies for the entire Los Angeles County, these policies may have short term, individually limited and/or environmental effects that could cause significant effects that the EIR will address.

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Describe the surrounding properties including information on plants and animals and any cultural, historical, or scenic aspects. Indicate types of land use. Kern, Orange, San Bernardino and Ventura Counties surround the project area and have similar environmental settings.

IV. Identification of Environmental Effects

(Explain all "yes" and "maybe" answers on attached sheets)

	YES	MAYBE	NO
1. Earth. Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic structures?		X*	
b. Disruptions, displacements, compaction, or overcovering of the soil?		X*	
c. Change in topography or ground surface relief features?		X*	
d. The destruction, covering, or modification of any unique geologic or physical features?		X*	
e. Any increase in wind or water erosion of soils, either on or off the site?		X*	
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition, or erosion which may modify the channel or a river or stream or the bed of the ocean or any bay, inlet, or lake?			X
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?			X
2. Air. Will the proposal result in:			
a. Substantial air emissions or deterioration of ambient air quality over the long term?		X*	
b. The creation of objectionable odors or dust?		X*	
c. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?			X

	YES	MAYBE	NO
3. Water. Will the proposal result in:			
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X
b. Changes in absorption rates, drainage patterns or the rate and amount of surface water runoff?		X*	
c. Alterations to the course or flow of flood waters?		X*	
d. Change in the amount of surface water in any water body? (e.g., perennial or intermittent streams; seasonal or year-round springs; ponds and marshes)			X
e. Alteration of water quality including, but not limited to, temperature, dissolved oxygen, or turbidity?		X*	
f. Alteration of the direction or rate of flow of groundwaters, including changes in infiltration or percolation rates?			X
g. Change in the quantity of groundwaters, either through direct additions or withdrawals, or through interception of any aquifer by cuts or excavations?			X
h. Substantial reduction in the amount of water otherwise available for public water supplies?			X
4. Plant Life. Will the proposal result in:			
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?		X*	
b. Reduction of the numbers of any unique, rare, or endangered species of plants?		X*	
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?			X
d. Reduction in acreage of any agricultural crop?			X
e. Any effect upon a Significant Ecological Area which is identified in the Los Angeles County General Plan?			X*

	YES	MAYBE	NO
5. Animal Life. Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	___	X*	___
b. Reduction of the numbers of any unique, rare or endangered species of animals?	___	___	X
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	___	___	X
d. Deterioration to existing fish or wildlife habitat?	___	___	X
6. Noise. Will the proposal result in:			
a. Increases in existing noise or vibration levels?	___	X*	___
b. Exposure of people to severe noise levels?	___	___	X
7. Light and Glare. Will the proposal produce new light or Glare?	___	X*	___
8. Land Use. Will the proposal result in:			
a. A substantial alteration of the present or planned land use of an area?	___	X*	___
b. A conflict with adopted environmental plans and goals of the community where it is located?	___	X*	___
9. Natural Resources: Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	___	___	X
b. Substantial depletion of any nonrenewable natural resource?	___	___	X
10. Risk of Upset. Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?	___	X*	___
b. Possible interference with an emergency response plan or an emergency evacuation plan?	___	___	X
c. Exposure of people or property to a flooding hazard, such as a change in location of flooding in the event of an accident or upset condition?	___	___	X

	YES	MAYSE	NO
11. Population. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	___	___	X
12. Housing. Will the proposal affect existing housing, or create a demand for additional housing?	___	___	X
13. Transportation/Circulation. Will the proposal result in:			
a. Generation of substantial additional vehicular movement?	___	X*	___
b. Effects on existing parking facilities, or demand for new parking?	___	___	X
c. Substantial impact upon existing transportation systems?	___	X*	___
d. Alterations to present patterns or circulation or movement or people and/or goods?	___	X*	___
e. Alterations to waterborne, rail, or air traffic?	___	X*	___
f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?	___	X*	___
14. Public Services. Will the proposal have an effect upon, or result in a need for, new or altered governmental services?	___	X*	___
15. Energy. Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	___	X*	___
b. A substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	___	___	X
16. Utilities. Will the proposal result in a need for new systems, or substantial alterations to utilities such as, but not limited to, gas, water, sewer, storm water drainage, or solid waste disposal?	___	X*	___
17. Human Health. Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	___	X*	___
b. Exposure of people to potential health hazards?	___	X*	___

	YES	MAYBE	NO
18. Aesthetics. Will the proposal result in:			
a. Obstruction of any scenic vista or view from existing residential areas, public lands, or roads?	___	X*	___
b. Creation of an aesthetically offensive site?	___	X*	___
c. Change in character of the general project area?	___	___	X
19. Recreation. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	___	___	X
20. Cultural, Archaeological, Historical, and Paleontological Resources. Will the proposal result in:			
a. Alteration or the destruction of a prehistoric or historic archaeological site?	___	X*	___
b. Alteration or destruction of a paleontological resource?	___	X*	___
c. Adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	___	___	X
d. Physical changes which would affect unique ethnic cultural values?	___	___	X
e. Restriction of existing religious or sacred uses within the potential impact area?	___	___	X
21. Mandatory Findings of Significance.			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	___	___	X*
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	___	X*	___

	YES	MAYBE	NO
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	___	X*	___
d. Does the project have environemtnal effects which will cause substantial adverse effects on human beings, either directly or indirectly?	___	X*	___

SUMMARY:

Factor	No Sig. Effect Possible	Possible Sig. Effect* *	Explanation
Earth		X	See discussion
Air		X	See discussion
Water		X	See discussion
Plant Life		X	See discussion
Animal Life		X	See discussion
Noise		X	See discussion
Light and Glare		X	See discussion
Land Use		X	See discussion
Natural Resources		X	See discussion
Risk of Upset		X	See discussion
Population	X		No effect
Housing	X		No effect
Transportation/ Circulation		X	See discussion
Public Services		X	See discussion
Energy		X	No effect
Utilities		X	See discussion
Human Health		X	See discussion
Aesthetics		X	See discussion
Recreation	X		No effect
Cultural Res.,et al		X	See discussion
Mandatory Findings of Significance		X	See discussion

*See County Guidelines, Section 601, and Appendix C, for examples of significant effects.

V. Initial Study Preparation

A. Conclusion of Initial Study

On the basis of this Initial Study:

1. The proposed project will not have a significant effect of the environment. Therefore, a Negative Declaration will be prepared. _____

2. The proposed project may have a significant effect on the environment, and an Environmental Impact Report is required. The potential significant effects have been identified above. X

B. Preparation

This study was prepared by Clarice R. Nash of the Planning Division, Los Angeles County Department of Public Works, under the supervision of Don F. Keene and Michael Mohajer. Date 12/10/87.

ATTACHMENT A

HAZARDOUS WASTE MANAGEMENT FACILITY SITING CRITERIA

The criteria developed in this Section only apply to off-site hazardous waste management facilities (versus on-site facilities). The siting criteria for on-site facilities are not included in this Section for the following reasons:

First, on-site hazardous waste management facilities are not required to be found consistent with the County Hazardous Waste Management Plan pursuant to Chapter 1504 of the 1986 State Statutes (Tanner, AB 2948). Secondly, the waste generated at an on-site facility is usually a by-product of a manufacturing process and is usually easy to treat. Overall, on-site hazardous waste facilities generate a lesser concern than off-site facilities which accept different waste streams.

On-site facilities are generally classified as accessory use and are generally well regulated by the local zoning/ordinances for compatible land uses. Recently enacted legislation for business plans places further restrictions and increases emergency response capabilities for these facilities.

This Appendix contains three Sections which deal with the siting of off-site hazardous waste management facilities. Section I presents the siting criteria that can be used to evaluate and determine the suitability of a given site. Section II contains information on the use of the siting criteria in the decision making process. Section III gives a brief overview of the major characteristics of six types of hazardous waste management facilities. Environmental protection measures and some of the typical physical characteristics of these facilities are also included.

I. SITING CRITERIA

These criteria, adopted from the Southern California Hazardous Waste Management Project (SCHWMP) and modified to comply with the guidelines as developed by the State Department of Health Services (SDOHS) pursuant to Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner), can be used to evaluate the suitability of locations for the following types of hazardous waste management facilities:

- Transfer and storage facilities
- Treatment facilities
- Recycling facilities
- Solidification/stabilization facilities
- Incineration facilities
- Residuals repositories

These criteria are developed to assist those using them to accomplish the following objectives when siting a hazardous waste management facility:

- Protect the residents
- Ensure the structural stability and safety of the facility
- Protect surface water
- Protect groundwater
- Protect air quality
- Protect environmentally sensitive areas
- Ensure safe transportation of hazardous waste
- Protect the social and economic development goals of the community

Each objective is defined in terms of a series of factors. These factors are listed in Table 6A-1. A description sheet for each factor is included in this package. The description sheet provides a definition of the factor, an explanation of the significance of each in terms of potential impacts of the facility and concerns likely to arise from the community, a set of criteria (specific by facility where necessary) to allow application of each factor to a site, and procedures for mitigating adverse impacts due to site deficiencies relative to the criterion.

In the following Section, those criteria that are set by the State Department of Health Services for the evaluation of facilities are denoted by an asterisk(*). They are the primary criteria to be used in the acceptance or rejection of facilities at a specific location. However, owing to the concern of the public regarding the siting of off-site hazardous waste management facilities, additional criteria have been included in this Appendix to bring out potential areas of concerns to ensure that adequate mitigation measures can be provided. These additional criteria are in no way intended to prohibit the siting of new hazardous waste management facilities or impair the expansion of existing ones. They are not to be used for exclusionary purposes.

TABLE 6A-1
SITING FACTORS

OBJECTIVES	
A. Protect the residents	*- proximity to populations (distance from residences) *- proximity to immobile populations (distance from immobile populations) - capability of emergency services
B. Ensure the structural stability and safety of the facility	*- flood hazard areas/floodplains *- areas subject to tsunamis, seiches, and storm surges *- proximity to active or potentially active faults/seismic *- slope stability (unstable soils) *- subsidence/liquifaction *- dam failure inundation areas
C. Protect surface water	- aqueducts and reservoirs - discharge of treated effluent
D. Protect groundwater	- proximity to supply wells and well fields *- depth to groundwater - groundwater monitoring reliability *- major aquifer recharge areas *- permeability of surficial materials (permeable strata and soils) - existing groundwater quality
E. Protect air quality	*- PSD air areas *- nonattainment air areas
F. Protect environmentally sensitive areas	*- wetlands *- proximity to habitats of threatened and endangered species *- agricultural lands *- natural, recreational, cultural, and aesthetic resources - proximity to public facilities *- federal and state lands *- areas of potential mineral deposits/resources
G. Ensure safe transportation of hazardous waste	*- proximity to areas of waste generation (waste generation stream) *- proximity to major transportation routes - structures and properties fronting minor routes - highway accident rate - capacity vs. AADT of access route
H. Protect social and economic development goals of the community	*- industrial, commercial, and specially zoned lands - changes in real property values - direct revenues to local jurisdictions - changes in employment

Note: PSD - Prevention of Significant Deterioration
AADT - Average Annual Daily Traffic

Source: Los Angeles County Department of Public Works, December 1987

PROTECT THE RESIDENTS

OBJECTIVE: PROTECT THE RESIDENTS

FACTORS:

*o Proximity to populations (Distance from Residences)

*o Proximity to immobile populations (Distance from Immobile Populations)

o Capability of emergency services

PROXIMITY TO POPULATIONS (DISTANCE FROM RESIDENCES)*

Definition: Proximity to population is defined as the distance from the active portion of the facility to one or more dwellings used by one or more persons as a permanent place of residence or to structures inhabited by persons temporarily for purposes of work or other daily activity.

Significance: Hazardous waste facilities should be located such that the health, safety, and quality of life of nearby residents and other persons are not jeopardized from planned or fugitive air emissions, fires, or explosions should they occur, noise from facility operations, subsurface migration of hazardous materials, and other possible impacts.

The State of California requires by law that new hazardous waste disposal facilities be at least 2,000 feet from any permanent place of residence or other sensitive land uses.

The County of Los Angeles also prohibits construction of buildings or structures on or within 1,000 feet of a land disposal facility which contains decomposable material/waste unless the facility is isolated by an approved natural or manmade protective system.

The County of Los Angeles is also in the process of establishing a procedure for notifying residents who live within one mile of a proposed hazardous waste disposal facility and providing them with an opportunity to voice their concerns at public hearings.

The location of treatment and storage facilities in existing industrial areas becomes more complicated than the simple expedient of specifying a buffer zone. It makes sense to place treatment facilities close to the industries they serve. This minimizes transportation of untreated wastes, and provides for similar or related uses in a given area.

Many existing industrial areas within Los Angeles County do not provide a buffer zone between use or storage of hazardous materials and residences.

In order to provide for the acceptable management of hazardous wastes, treatment facilities are urgently needed. The 1984 RCRA amendments set a schedule and prohibit certain waste categories from land disposal by 1990 and required that they be taken to treatment centers for detoxification, volume reduction, and immobilization.

The host community may consider requiring either a buffer distance or natural or engineering barriers, such as berms, buildings, trees, fences, etc., to mitigate potential hazards from treatment facilities.

Criteria:

Residuals Repositories

A buffer zone of 2,000 feet is required for any hazardous waste residual repository [Health and Safety Code, Section 25202.5(b) and (d)], unless the owner proves to the Department's satisfaction that a 2,000 foot buffer zone is not required to protect public health and safety.

All Other Facilities

Risk assessments shall be made when permitting a facility. This should consider the physical and chemical characteristics of the specific type of wastes that will be handled, the design features of the facility, and any need for buffering residential areas or other sensitive areas from adverse emissions from a proposed facility.

Mitigation:

Setbacks may be required, though the burden of justifying the distance should lie with the host community. For example, if a jurisdiction has existing bulk petroleum storage at 500 feet from residences, and it demands that a waste treatment facility have a 2,000-foot buffer zone, it should be up to the local jurisdiction to justify this.

Engineering or natural buffers (berms, buildings, trees, fences, etc.) may be required as part of the land use permit to buffer effects of fire, explosion, or release of vapors should they occur.

PROXIMITY TO IMMOBILE POPULATIONS (DISTANCE FROM IMMOBILE POPULATIONS)*

Definition: Proximity to immobile populations is defined as the distance from the active portion of the facility to areas where persons who cannot or should not be moved are located.

Significance: Hazardous waste management facilities should be sufficiently distant from centers of immobile populations, such as schools, hospitals, convalescent homes, prisons, facilities for the mentally ill, etc., to make evacuation unnecessary in the event of an emergency, since it would likely be difficult or inadvisable to do so.

Criteria:

For All Facilities

Risk assessments, performed at time of permitting, shall be used to determine the need for buffer zones between the facility and immobile populations. This risk assessment will consider the physical and chemical characteristics of the specific types of wastes which will be handled and the design features of the facility and proximity to immobile populations.

Mitigation: The facility developer and the community should review the options recommended in the study for reducing risk and agree on procedures for adequately protecting immobile populations.

CAPABILITY OF EMERGENCY SERVICES

Definition: Capability of emergency services includes the extent of training and equipment of fire departments, police departments, and hospitals for handling industrial emergencies.

Significance: Hazardous waste management facilities require the same type of emergency services required by heavy-industrial areas to quickly remedy the effects of any accident so that workers and surrounding residents are protected.

The local fire department should be able to provide appropriate fire-fighting equipment in a reasonable response time.

The California Highway Patrol, local police department, or sheriff's office should be able to provide traffic control, crowd control, and communications management.

Ambulance service should be able to respond quickly and have sufficient capacity to transport all personnel who could be injured in an accident from the site.

Hospital(s) in the local area should be equipped with appropriate facilities (e.g., emergency room, trauma center, intensive care) or have mutual aid agreements to provide those services.

The required types of personnel training and emergency facilities will depend upon the hazardous waste management facility that is planned, including the types and volumes of wastes, the types of accidents that could occur, and the size of the population at risk.

Criteria:

All Facilities

A facility should be located in an area where fire departments are trained to deal with hazardous materials accidents, where mutual aid and immediate aid agreements are well established, and where demonstrated emergency response times are the same or better than those recommended by the National Fire Prevention Association.

Other Considerations

ENSURE THE STRUCTURAL STABILITY AND SAFETY OF THE FACILITY

OBJECTIVE:	ENSURE THE STRUCTURAL STABILITY AND SAFETY OF THE FACILITY
FACTORS:	*o Flood hazard areas/Floodplains
	*o Areas subject to tsunamis, seiches, and storm surges
	*o Proximity to active or potentially active faults/seismic
	*o Slope stability (Unstable soils)
	*o Subsidence/Liquifaction
	*o Dam failure inundation areas

Additional services may be required based on the types of wastes handled at the facility. Particularly for facilities handling corrosive, ignitable, reactive, or volatile toxic wastes, additional design features or on-site emergency services may be necessary.

Mitigation:

It may be necessary for the facility operator to supplement the capabilities of local emergency services either by maintaining additional emergency response equipment on site or by financially aiding the upgrade of local services.

Additional facility design features, such as dry chemical sprinkler units, isolation of flammable liquids storage tanks, and handling of explosive wastes in depressions to shield surrounding areas may have to be installed to limit the impact of accidents at the source.

FLOOD HAZARD AREAS/FLOODPLAINS*

Definition:

Flood hazard areas are defined as areas which are prone to inundation by floods having a 100-year return period, and by flash floods and debris flows resulting from major storm events. This includes areas subject to flooding by dam or levee failure and natural causes such as river flooding, rainfall or snowmelt, tsunamis, seiches, and coastal flooding. These areas can be determined by checking the Federal Emergency Management Agency flood insurance maps or with the Los Angeles County Department of Public Works.

Significance:

Inundation of the facility by flood waters, debris and/or flash flooding may lead to the physical transport of hazardous wastes, possibly impacting water quality and water dependent species. In addition, flooding interrupts the operation of the facility and could stress leachate handling systems of a residuals repository.

The State of California prohibits by law the locating of new disposal facilities in areas subject to inundation by floods with a 100-year return period. Treatment and storage facilities may locate in floodplains provided that they are designed, constructed, operated, and maintained to prevent inundation.

Criteria:

All Facilities

Facilities should avoid locating in floodplains or areas subject to flash floods and debris flows unless they are designed, constructed, operated, and maintained to prevent inundation. Facilities may be built in areas subject to 100-year flooding if protected by engineered solutions, such as berms, raising above flood levels, etc.

Other Considerations

Residuals Repositories: Residuals Repositories may not be located in areas subject to 100-year events, even with protection [Code of Federal Regulations (CFR), Title 40, Section 264.18(b); and CAC Title 22, Section 66391(a)(11)(b)].

Mitigation:	Design features can be used to prevent the transport of contaminants in the event of a flood. Furthermore, waste acceptance could be curtailed temporarily when flooding is predicted.

AREAS SUBJECT TO TSUNAMIS, SEICHES, AND STORM SURGES*

Definition: Areas subject to tsunamis, seiches, and storm surges are defined as areas bordering oceans, bays, inlets, estuaries or similar bodies of water which may flood due to tsunamis (commonly known as tidal waves), seiches (vertically oscillating standing waves usually occurring in enclosed bodies of water such as lakes, reservoirs, and harbors caused by seismic activity, violent winds, or changes in atmospheric pressure), or storm surges.

Significance: Inundation of a facility by flood waters may lead to the physical transport of hazardous waste, possibly impacting water quality and water-dependent species. In addition, flooding interrupts the operation of the facility and could stress the leachate handling system of a residuals repository.

Areas subject to tsunamis, seiches, and storm surges include the coastal areas of Los Angeles County. Inland lakes and reservoirs could be subject to seiching and storm surges. Coastal development is heavily restricted by Federal and State regulations, including the California Coastal Act of 1976, and as such the likelihood of siting a facility in the coastal area is remote.

The State of California prohibits by law the locating of disposal facilities in areas subject to tsunamis, seiches, and storm surges. Other facilities may be located in these areas if designed, constructed, operated, and maintained to preclude failure due to such events.

Criteria:

All Facilities

All facilities should avoid locating in areas subject to tsunamis, seiches, and storm surges unless designed, constructed, operated, and maintained to preclude failure due to such events. Facilities may be built in areas subject to 100-year flooding if protected by engineered solutions, such as berms, raising above flood levels, etc.

Residuals Repositories

Residuals Repositories may not be located in areas subject to 100-year events, even with protection [Code of Federal Regulations (CFR), Title 40, Section 264.18(b); and CAC Title 22, Section 66391(a)(11)(b)].

PROXIMITY TO ACTIVE OR POTENTIALLY ACTIVE FAULTS/SEISMIC*

Definition:

An active fault is defined as a fault along which surface displacement has occurred during Holocene time (about the last 11,000 years) and is associated with one or more of the following:

- o A recorded earthquake with surface rupture;
- o Fault creep slippage; or
- o Displaced survey lines.

A potentially active fault is defined as a fault showing evidence of surface displacement during Quarternary time (from the last 11,000 years to about the last 2 to 3 million years) and characterized by the following:

- o Considerable length, e.g., over 30 miles;
- o Association with an alignment of numerous earthquake epicenters;
- o Continuity with faults having historic displacement;
- o Association with youthful major mountain scarps or ranges; and
- o Correlation with strong geophysical anomalies.

Significance:

The stability of a facility, a major concern for permanent facilities or facilities storing liquids, is related to the potential for movement of the earth along fault zones.

The U.S. EPA and the California Department of Health Services require, as part of the facility permit a seismic activity evaluation of the site. The evaluation must show that either no faults or, no lineations suggesting the presence of a fault are located within 3,000 feet of the facility or, if faults or lineations are located within 3,000 feet, no faults are located within 200 feet of the active portion of the

facility as determined by a comprehensive geologic analysis of the site.

The State of California prohibits the locating of a hazardous waste management facility within 200 feet of an active fault (California Administrative Code (CAC), Title 22, Section 66391(a)(11) (A.1, and .2)

Criteria:

All Facilities

Facilities are required to have a 200-foot setback from a known active fault.

SLOPE STABILITY (UNSTABLE SOILS)*

Definition:

Slope stability is defined as the relative degree to which the site will be vulnerable to the forces of gravity, such as erosion, landslide, soil creep, earth flow or any other mass movement of earth material which might cause a breach or carry wastes away from a facility, or inundate the facility.

Significance:

The long-term containment of hazardous wastes at a site requires that the site be located in a geomorphic environment which does not encourage long-term instability by the processes of landslides and mass movement.

The State of California prohibits the locating of new disposal facilities in areas of potential rapid geological change, including landslides and mass movement

Criteria:

All Facilities

Facilities located within these areas should have engineered design safety features to assure structural stability.

Other Considerations

Residuals Repositories are prohibited in areas of potential rapid geologic change.

SUBSIDENCE/LIQUIFACTION*

Definition:

Subsidence is defined as a sinking of the land surface following the removal of solid mineral matter or fluids (water or oil) from the rock beneath.
Liquefaction refers to surface materials that develop liquid properties upon being physically disturbed.

Significance:

Subsidence of the land may weaken the structural integrity of the facility, causing the release of hazardous wastes.

Liquefaction can quickly convert soil materials to fluid masses, resulting in the lateral spreading and subsidence of surface materials, and threatening the structural integrity of the facility.

The State of California prohibits by law the siting of new disposal facilities in areas of rapid geologic change, including subsidence and liquefaction.

Criteria:

All Facilities

Facilities located within these areas should have engineered design features to assure structural stability.

Other Considerations

Residuals Repositories are prohibited from locating in areas of potential rapid geologic change.

DAM FAILURE INUNDATION AREAS*

Definition: Dam failure inundation areas are defined as areas immediately adjacent to a river or stream below an embankment or masonry dam which would be inundated by the flow of water from the impoundment created by the dam/levee if the dam/levee were to fail.

Significance: Recent failures of large U.S. dams illustrate the potential destruction to natural and manmade features in the danger reach. Dam impoundments have the potential to create a flood hazard which would have the same or worst effects as those associated with flood hazard areas.

Dam owners in California are required by the State Office of Emergency Services to prepare and submit dam failure inundation maps to local jurisdictions for use in local land use planning activities.

Criteria:

Residuals Repositories

Residuals Repositories may not be located in areas subject to 100-year events, even with protection [Code of Federal Regulations (CFR), Title 40, Section 264.18(b); and CAC Title 22, Section 66391(a)(11)(b)].

All Other Facilities

Facilities may be built in areas subject to 100-year flooding if protected by engineered solutions, such as berms, raising above flood levels, etc.

PROTECT SURFACE WATER

OBJECTIVE: PROTECT SURFACE WATER

FACTORS:

- Aqueducts and reservoirs
- Discharge of treated effluent

AQUEDUCTS AND RESERVOIRS

Definition:

Aqueducts are defined as conduits for conveying drinking water supplies. Reservoirs are defined as impoundments for containing drinking water supplies with minimal natural drainage areas.

Significance:

Spills and leakage from a facility could possibly enter aqueducts or reservoirs depending upon a number of factors.

Hazardous waste management sites will be subject to the requirements of the California Department of Health Services and the Environmental Protection Agency. Storage and treatment facilities using tanks and containers are required to have a containment system to ensure that leaks, spills and precipitation can be controlled and held until detected and removed. The containment system must be able to contain the precipitation from a 24-hour 25 year storm plus 10 percent of the volume of the tanks or containers or 100 percent of the volume of the largest tank or container, whichever is greater. The containment system must have a continuous, impervious base, free of cracking. Other facilities are required to have a control system designed to contain run-on or runoff from a 24-hour 25 year storm.

Criteria:

All Facilities

Facilities should be located in areas posing minimal threats of contamination of drinking water supplies contained in reservoirs and aqueducts.

Mitigation:

Facility design features may provide for additional containment beyond the permit requirements to further minimize the chances of water contamination should the tanks or containers fail.

Inspections of containment structures may be increased or independent inspections instituted to keep greater surveillance on the integrity of containment structures.

DISCHARGE OF TREATED EFFLUENT

Definition:

Discharge of treated effluent is defined as the availability of wastewater treatment facilities to accept wastewater (effluent), or the ability to discharge treated effluent directly into a stream, including a dry stream bed, or into the ocean through a State-permitted outfall.

Significance:

Some facilities will generate a treated effluent requiring discharge to receiving waters. Facilities could discharge to sanitary sewers, within the Los Angeles County Sanitation Districts, City of Los Angeles and other municipalities requiring adequate pretreatment of wastewaters to a specified level before discharge.

Facilities discharging into streams or into the ocean will require National Pollution Discharge Elimination System (NPDES) permits issued by the Regional Water Quality Control Board. The NPDES permit sets limitations on the quantity and quality of the waste discharges, and may specify engineering and technical requirements and a time schedule to ensure compliance.

Criteria:

Facilities Generating Wastewaters

Facilities should be located in areas with adequate sewer capacity to accommodate the expected wastewater discharge. If sewers are not available, sites should be evaluated for ease of connecting to a sewer or feasibility of reclaiming the treated effluent waters prior to discharging to the ocean.

Mitigation:

Advanced wastewater treatment technologies are available for removing practically any pollutant. Wastewaters, provided the quantities are modest, could be transported in bulk via highways to facilities capable of treating them.

PROTECT GROUNDWATER

OBJECTIVE: PROTECT GROUNDWATER

FACTORS:

- o Proximity to supply wells and well fields
- *o Depth to groundwater
- o Groundwater monitoring reliability
- *o Major aquifer recharge areas
- *o Permeability of surficial materials (Permeable strata and soils)
- o Existing groundwater quality

PROXIMITY TO SUPPLY WELLS AND WELL FIELDS

Definition:

Proximity to supply wells and well fields is defined as the distance to areas used for extraction of groundwater for drinking water supplies by high capacity production wells and identified by the presence of several wells that constitute a well field.

Significance:

Areas that overlay or are immediately adjacent to wells and well fields may be extremely susceptible to contamination due to increased gradients and velocities caused by extraction of large volumes of water. An increased risk is associated with locating hazardous waste facilities in near proximity to existing production wells due to the potential danger of contaminated water being consumed by customers.

Criteria:

All Facilities

Facilities are to be located outside the cone of depression created by pumping a well or well field 90 days unless an effective hydrogeologic barrier to vertical flow exists.

Residuals Repositories

Not allowed overlying the core of depression created by pumping a well or well field 90 days. Preferred where the saturated zone predominantly discharges to nonpotable water without any intermediate withdrawals for public water supply.

DEPTH TO GROUNDWATER*

Definition:

Depth to groundwater is defined as the minimum seasonal depth to the highest anticipated elevation of underlying groundwater from the bottom of any proposed waste containing facility.

Significance:

If the water table elevation rises above the bottom of a facility, it may breach the facility liner and come into direct contact with the waste, causing groundwater contamination to occur.

Criteria:

Residuals Repositories and Facilities with Subsurface Storage/Treatment

Prohibited in areas where the highest anticipated elevation of underlying groundwater is 5 feet or less from the wastes.

(All Other Facilities)

Other facilities may be located in high groundwater areas if the engineered design of the containment structure is capable of withstanding failure because of geologic or soil failures which may arise.

GROUNDWATER MONITORING RELIABILITY

Definition:

Groundwater monitoring reliability is the reliability of a scientifically designed monitoring program to measure, observe and evaluate groundwater quality and flow.

Significance:

A reliable groundwater monitoring system around a facility is required to provide an early warning detection system for possible contaminant migration within the facility property boundaries. Corrective measures and remedial action are more effective and less expensive if initiated during the early stages of any contaminant migration.

To assure that groundwater is reliably monitored, a facility should be located where the following can be characterized, modeled, and analyzed with a relatively high degree of confidence:

- Subsurface geology;
- Hydrologic budgets; and
- Direction and magnitude of groundwater flow

This implies that the site should be geologically and hydrologically uniform.

Criteria:

Facilities Handling Liquids

Preferred where groundwater flow is in one direction with no vertical interformational transfer of water.

Residuals Repositories

Must develop a program that successfully satisfies the permit requirements for groundwater monitoring.

Mitigation:

Facilities other than Residuals Repositories could provide aboveground storage and increased spill containment and monitoring measures.

Residuals repository facilities can conduct extensive site investigations and

MAJOR AQUIFER RECHARGE AREAS*

Definition:

Major aquifer recharge areas are defined as regions of principal recharge to major regional aquifers, as identified in the existing literature or by hydrogeologic experts familiar with Southern California. Such recharge areas are typically found in:

- o Outcrop or subcrop areas of major water-yielding facies of confined aquifers.
- o Outcrop or subcrop areas of confining units which supply major recharge to underlying regional aquifers.

Significance:

Aquifers receive their principal water supplies from areas which allow water infiltrating from the land surface to rapidly recharge the aquifer. Hazardous wastes introduced into such areas may cause widespread contamination of the water supply.

Criteria:

Residuals Repositories

Residuals Repositories should be prohibited within areas known or suspected to be supplying principal recharge to a regional aquifer, as defined in adopted general, regional, or state plans.

All Other Facilities

Facilities should be discouraged from being located in such areas. If located in these areas, facilities should provide properly engineered spill containment features, inspection measures, and other environmental protection controls.

PERMEABILITY OF SURFICIAL MATERIALS (PERMEABLE STRATA AND SOILS)*

Definition:

Permeability of surficial materials is defined as the ability of geologic materials at the earth's surface to infiltrate and percolate water.

Significance:

The surficial materials overlying major water bearing formations in an area provide a pathway for vertical migration of potential contaminants. Permeable geologic materials can allow rapid movement of pollutants into major regional aquifers. Thick deposits of fine-grained materials of low hydraulic conductivity retard the rate of vertical percolation of pollutants to the groundwater, and provide an opportunity for detection and control of pollutant releases before it contaminates aquifers. Materials having a low permeability tend also to have favorable attenuation characteristics for individual contaminants.

State law requires new hazardous waste management units to be immediately underlain by natural geologic materials which have a permeability of not more than 1×10^{-7} cm/sec, and which are of sufficient thickness to prevent vertical movement of fluids including waste and leachate. Further, the geologic materials shall be continuous and shall not be interbedded with materials of greater permeability.

Criteria:

Subsurface Storage/Treatment Facilities and Residuals Repositories

The facilities should locate outside of areas where surficial sediments are principally highly permeable materials, such as sand and gravel.

All Other Features

All aboveground facilities should have engineered structural design features, common to other types of industrial facilities. These features would include spill containment and monitoring devices.

EXISTING GROUNDWATER QUALITY

Definition:

Existing groundwater quality is defined as the chemical quality of the groundwater in comparison to:

1. The U.S. Environmental Protection Agency (EPA) Interim Primary and Secondary Drinking Water Standards.
2. State Drinking Water Standards (California Administrative Code, Title 22, Sections 64404 through 64475).
3. State Department of Health Services action levels. These actions levels are guidelines and are not enforceable by law.

Significance:

The significance of the potential impact of a facility on groundwater quality is related to the actual potential use of the groundwater. The EPA has recently released guidelines defining protection policies for three classes of groundwater, based on their respective value and their vulnerability to contamination. The three classes are:

- Class I: Groundwater that is highly vulnerable to contamination and characterized by being irreplaceable or ecologically vital. These are designated as Special Groundwaters.
- Class II: Current or potential sources of drinking water and waters having other beneficial uses.
- Class III: Groundwaters not considered potential sources of drinking water and of limited beneficial use or otherwise contaminated beyond levels that allow cleanup using reasonably employed treatment methods.

To prevent contamination of Class I and Class II groundwaters, EPA will initially discourage by guidance, and eventually ban by regulation, the siting of hazardous waste land disposal facilities over these waters. Other groundwaters will be afforded protection consistent with that provided by existing EPA

provide a large number of monitoring points.

statues, including the use of technology standards.

Criteria:

Residuals Repositories

Allowed only where the uppermost water bearing zone or aquifer is presently mineralized (by natural or human-induced conditions) to the extent that it cannot reasonably be considered for beneficial use.

All Other Facilities

Other facilities may be located in high groundwater areas if the engineered design of the containment structure is capable of withstanding failure because of geologic or soil failures which may arise.

PROTECT AIR QUALITY

OBJECTIVE: PROTECT AIR QUALITY

FACTORS:

*o PSD air areas

*o Nonattainment air areas

PSD AIR AREAS*

Definition:

Prevention of significant deterioration (PSD) areas are defined as areas in attainment of the National Ambient Air Quality Standards (NAAQS) for one or more criteria pollutants. The State Department of Health Services defines PSD Air Areas as areas which are in attainment for all of the criteria pollutants. PSD areas are divided into three classes. Class I includes international parks, national wilderness areas exceeding 5000 acres, national memorial parks exceeding 5000 acres, national parks exceeding 6000 acres and other areas approved by the EPA Administrator. All other areas are classified as Class II areas with the exception of a few areas classified as Class III where economic growth would be too restricted under Class II restrictions. There are currently no PSD air areas in Los Angeles County.

Significance:

The prevention of significant deterioration of high quality airsheds is mandatory under the Clean Air Amendments of 1977. Any new source meeting the statutory definition of either a new major source or a modification to a major source locating in a PSD area must meet stringent conditions, including the installation of Best Available Control Technology (BACT), before initial construction or major modifications are allowed. Sources required to submit to PSD preconstruction review are:

- A new source or modification to an existing source where the increase in potential to emit is either 100 or 250 tons per year, depending on source category, or
- A significant emission increase of an attainment pollutant at an existing major stationary source, or
- Any net emission increase at a major stationary source located within 10 kilometers of a Class I PSD area, if the emission increase would impact the Class I area by 1.0 ug/m3 (24-hour average).

The South Coast Air Quality Management District (SCAQMD) is in the process of obtaining authority from the EPA to manage the PSD program in the South Coast Air Basin. When authorized the District's PSD regulations will require BACT of all stationary sources with a net emission increase of a criteria pollutant. This is not required under Federal regulations.

Criteria:

Transfer and Storage Facilities

These facilities could be permitted in PSD areas, if they are necessary to also handle potentially hazardous wastes generated by visitors or residents in recreational or cultural facility areas which are in the PSD zone.

All Other Facilities

Unless an analysis for a specific proposed facility shows that air emissions cannot be adequately mitigated, other facilities can be established in PSD areas. These facilities, however, may not be located near or within national parks, wilderness and memorial areas, and other similarly dedicated areas.

NONATTAINMENT AIR AREAS*

Definition:

Nonattainment areas are defined as areas in which the level of one or more of the criteria pollutants (total suspended particulates, ozone, oxides of sulfur and nitrogen, and carbon monoxide) exceeds the National Ambient Air Quality Standards (NAAQS) and which have not achieved standards required by the federal Clean Air Act.

Significance:

Federal law requires states to implement air pollution control programs to improve or preserve existing air quality in accordance with the NAAQS. Facilities, particularly incinerators, will emit pollutants in quantities which may exceed allowable limits.

The South Coast Air Quality Management District (SCAQMD) is nonattainment for ozone, particulates, carbon monoxide, and nitrogen dioxide. Facilities emitting nonattainment air contaminants will be subject to New Source Review requirements including application of Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER). Net cumulative emission increases exceeding certain threshold limits will require the obtaining of offsets to balance the increased pollutant levels.

In addition, the hazardous waste facility permitting process contains well-defined procedures for evaluating a facility's potential impact on air quality and the effectiveness of its air pollution control equipment.

Location of a hazardous waste facility in an area which is nonattainment for one or more of the criteria pollutants, particularly one which would be a major source of emissions, may be very costly if considerable pollution control devices are required.

Criteria:

<u>All Facilities</u>

Siting should not be precluded from these areas unless risk assessments performed as a part of permitting, considering the

physical and chemical characteristics of the specific types of waste that will be handled and design features of the facility show that emissions will not significantly contribute to nonattainment of standards, and that such emissions can be mitigated or that the emissions from such facilities are significantly lesser than those associated with transportation of hazardous wastes out of this area.

PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS

OBJECTIVE: PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS

FACTORS:

- *o Wetlands
- *o Proximity to habitats of threatened and endangered species
- *o Agricultural lands
- *o Natural, recreational, cultural, and aesthetic resources
- o Proximity to public facilities
- *o Federal and State land
- *o Areas of potential mineral deposits/resource area

WETLANDS*

Definition:

Wetlands are defined as areas such as saltwater, freshwater and brackish swamps, marshes, or bogs inundated by surface or groundwater with a frequency to support, under normal circumstances, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction, as defined in adopted general, regional, and state plans.

Significance:

The preservation of wetlands area is critical to preserve a balanced ecosystem. The location of a hazardous waste facility in a wetlands area could result in the loss of critical habitats, loss of the wetlands for groundwater recharge, and increase the potential for pollutant dispersal in ground and surface waters.

Wetland areas are located primarily along the coast and near embayments and estuaries. Development in coastal areas, and wetlands areas in particular, is restricted by federal and state regulations, including the California Coastal Act of 1976, and as such the siting of a facility in these areas is very unlikely.

Criteria:

All Facilities

No facilities should be located in current wetland areas, as defined in adopted general, regional, and state plans, unless: a) industrial usage is permitted by the local government's land use planning or zoning, b) no additional filling is required, and c) fish , plant, and wildlife resources can be maintained and enhanced in a portion of the site, or preserved elsewhere in the area.

PROXIMITY TO HABITATS OF THREATENED AND ENDANGERED SPECIES*

Definition:

Habitats of threatened and endangered species are defined as areas known to be inhabited permanently or seasonally or known to be critical at any stage in the life cycle of any species of wildlife or vegetation identified or being considered for identification as "endangered" or "threatened" by the U.S. Department of Interior or the State of California.

Significance:

Threatened and endangered species are important as biological resources because of the irreversibility of species extinction.

The loss of such species would seriously interfere with the health of the ecosystem and deter human education and research.

Criteria:

All Facilities

A facility shall not be located in habitats of threatened or endangered species, as defined in adopted general, regional, or state plans, unless it can be demonstrated that the habitat will not be disturbed and the survival of the species will be assured.

Mitigation:

Similar habitats can be maintained in a portion of the site, or preserved elsewhere in the region by the facility developer.

AGRICULTURAL LANDS*

Definition: Agricultural lands are lands zoned county-wide or locally for agricultural use and currently used for agricultural purposes.

Significance: Farmlands and other agricultural lands are irreplaceable natural and economic resources essential for food production. Preservation of these lands serves both private and public interests in terms of food, jobs, and open space preservation.

Criteria:

All Facilities

A facility should avoid locating in areas used for agricultural uses. When siting hazardous waste management facilities in these areas, overriding public service needs must be demonstrated.

NATURAL, RECREATIONAL, CULTURAL, AND AESTHETIC RESOURCES*

Definition: Natural, recreational, cultural, and aesthetic resources are defined as public and private lands having local, regional, state, or national significance, value, or importance. Cultural areas include historic preservation, Indian reservation, or other areas of significant cultural interest. Aesthetic areas are those with scenic designation in state or local adopted general plans. These lands include national, state, regional, county, and local parks and recreation areas, historic resources, wild and scenic rivers, scenic highways, ecological preserves, and public and private preservation areas.

Significance: Facilities sited in these areas could adversely impact the natural, recreational, cultural, or aesthetic value of the lands.

Criteria:

All Facilities

Facilities should avoid locating in, or near these areas. Currently, there are no Indian reservations in Los Angeles County.

Mitigation: Site operations and transportation could be restricted to unused portions or compatible portions of certain public lands. A facility may be secluded with landscaping or specific location.

PROXIMITY TO PUBLIC FACILITIES

Definition: Public facilities are defined as lands owned by the federal, state, county, or local governments on which facilities used to supply public services are located.

Significance: Hazardous waste management facilities are clearly incompatible with some of the uses of these lands. However, dependent upon the type and frequency of use of these lands and the type and size of a hazardous waste facility, a facility could be operated without interfering with their intended uses.

Criteria:

All Facilities

Potential adverse impacts which could occur because of proximity of the facilities to places where large numbers of people may gather shall be determined as a part of the risk assessment conducted in the permitting process. This should consider the physical and chemical characteristics of the waste that will be handled and the design features of the facility. Proximity to other public facilities such as corporation yards, utilities, roads, and state school lands in remote areas may be acceptable. Public water and sewer services and emergency services should be readily available.

Residuals Repositories

Self-sufficient services may be necessary.

Transfer/Storage Facilities

Self-sufficient services may be appropriate, where these facilities are necessary to serve remote rural areas. In urban areas, public services should be available.

FEDERAL AND STATE LANDS*

Definition: Federal and state lands are defined as lands owned by state and or federal agencies. Military installations are considered to be federally owned land.

Significance: Dependent on the type and frequency of uses of these lands and the type and size of a hazardous waste facility, a facility could be operated without interfering with their intended uses.

While it is currently the policy of the Department of Defense (DOD) that military land shall not be considered for the establishment of public hazardous waste management facilities, military land should not be excluded from consideration as this is a long term hazardous waste management plan and current policies may at some future date change.

Criteria: <u>All Facilities</u>

The siting of facilities on or near these lands may be permitted on a case-by-case basis.

AREAS OF POTENTIAL MINERAL DEPOSITS/RESOURCES*

Definition: Areas of potential mineral deposits are defined as locations where deposits of mineral resources occur which may be suitable for commercial development or may have some outstanding scientific significance.

Significance: Access to vital natural resources should not be restricted by the construction of hazardous waste facilities. Also the presence of closed facilities in areas of mineral deposits might result in future accidental intrusion into the waste containing facility.

Criteria:

All Facilities

No facilities should be sited so as to preclude extraction of minerals necessary to sustain the economy of the State.

ENSURE SAFE TRANSPORTATION OF HAZARDOUS WASTE

OBJECTIVE: ENSURE SAFE TRANSPORTATION OF HAZARDOUS WASTE

FACTORS:

- *o Proximity to areas of waste generation (Waste generation stream)
- *o Proximity to major transportation routes
- o Structures and properties fronting minor routes
- o Highway accident rate
- o Capacity vs. AADT of access routes

PROXIMITY TO AREAS OF WASTE GENERATION (WASTE GENERATION STREAM)*

Definition:

Proximity to areas of waste generation is defined as travel time from the major market areas of waste generation to the proposed facility.

Significance:

The potential risk associated with the transport of hazardous waste is obvious and the shorter the transportation distance, the lower the statistical chance of a spill or accident.

Generators also benefit from shorter travel requirements. Transportation costs can have a marked impact on waste management costs. High transportation costs could possibly induce some generators to use unsafe disposal practices.

Criteria:

Residuals Repositories

Residuals Repositories may be located more distant from waste generation sources than other facilities because of their need for larger land areas.

All Other Facilities

These should be located close to waste generation sources to minimize the risks of transportation.

Mitigation:

Alternate transportation, by rail, may be evaluated in regard to specific locations for feasibility and efficiency.

In comparison with multiple small facilities, economies of scale for a single centralized facility may offset the additional transportation cost.

PROXIMITY TO MAJOR TRANSPORTATION ROUTES*

Definition: Distance from a major route is defined as the distance along a minor route (city street, boulevard, or undivided highway) that a truck must travel to reach the facility after leaving the major route (street or interstate divided highway).

Significance: Public concern over the transportation of hazardous waste is heightened when transportation occurs over roads not constructed for heavy truck traffic, not intended for it, or containing many restrictions such as traffic lights or horizontal and vertical curves. The distance on minor routes should be kept to a minimum to avoid interference with commercial/residential traffic and reduce the risks of accidents.

Criteria:

All Facilities

Road networks leading to major transportation routes should not utilize local residential streets and should minimize the use of residential frontages along highways. The road should be demonstrated to be safe with regard to road design and construction, accident rates, excessive traffic, etc.

Residuals Repositories

Residuals Repositories should have good access to major transportation routes, but may have to be more distant from waste generation sites than other types of facilities because of their need for larger land areas.

All Other Facilities

Facilities other than Residuals Repositories should be located so as to minimize distances to major transportation routes and designed to accommodate heavy vehicles.

Mitigation: The facility developer may require transporters to use an alternate route.

Local roads could be upgraded by increasing their load capacity, improving

traffic controls or building truck-only lanes or routes.

The facility developer may build a direct access road to avoid the minor route(s).

STRUCTURES AND PROPERTIES FRONTING MINOR ROUTES

Definition: Structures fronting minor routes are defined by the number and type of residences, schools, hospitals, and shopping centers having primary access from the transportation route between the entrance of a facility and the nearest major route.

Significance: A great increase in truck traffic, particularly on roads used primarily by cars, may cause considerable noise, congestion, and disruption of normal daily activities.

Criteria:

All Facilities

Facilities should be located such that any minor routes from the major route to the facility are used primarily by trucks, and the number of nonindustrial structures (homes, hospitals, schools, etc.) is minimal.

The facility developer should evaluate the "population at risk" based on the Federal Highway Administration's Guidelines for Applying Criteria to Designate Routes for Transporting Hazardous Materials. The population at risk factor should not exceed that for existing facilities and sites with lower factors should be preferred.

Mitigation: Specific highway segments may be scheduled for Caltrans improvement.

Transportation could be curtailed during peak use by automobiles, schools, etc.

HIGHWAY ACCIDENT RATE

Definition:

The highway accident rate is defined as the occurrence of minor to fatal accidents per vehicle miles traveled, as recorded by the California Department of Transportation.

Significance:

Accident rates vary significantly by type of road and average annual daily traffic (AADT). Accident rates should, however, be analyzed in conjunction with information about the percentage of truck usage and the design of the road. The accident rate alone should not be used to judge the safety of the highway.

Criteria:

All Facilities

The minimum time path from major market areas to a facility should follow highways with low to moderate average annual daily traffic and accident rates as guided by the research and findings of state, regional, county, and city transportation planners.

Mitigation:

Specific highway segments may be scheduled for Caltrans improvement which may decrease highway accident rates.

Hazardous waste transportation could be curtailed during periods of greatest automobile traffic.

The facility developer could work with regional, county and city transportation planners in selecting alternate routes.

CAPACITY VS. AADT OF ACCESS ROUTES

Definition: Capacity versus average annual daily traffic (AADT) of access roads is defined as the number of vehicles the road is designed to handle versus the number of vehicles it does handle on a daily basis, averaged over a period of one year.

Significance: Roads currently handling at or near the maximum number of vehicles should not be considered good routes for the transport of hazardous waste. Ideally, the roads best suited for hazardous waste transportation are those on which the additional vehicles serving the facility will have little or no impact on the average annual daily traffic relative to the capacity.

Criteria:

All Facilities

The changes in the ratio of route capacity to AADT should be negligible after calculating the number of trucks on the major and minor routes expected to service the facility.

Mitigation: Facility developer may upgrade the road(s) to provide additional capacity.

PROTECT THE SOCIAL AND ECONOMIC DEVELOPMENT GOALS OF THE COMMUNITY

OBJECTIVE:	PROTECT THE SOCIAL AND ECONOMIC DEVELOPMENT GOALS OF THE COMMUNITY
FACTORS:	*o Industrial, commercial, and specially zoned Lands
	o Change in real property values
	o Direct revenue to local jurisdictions
	o Changes in employment

INDUSTRIAL, COMMERCIAL, AND SPECIALLY ZONED LANDS*

Definition: Industrial, commercial, and specially zoned lands are defined as land used for manufacturing, business, and/or special purposes as determined by the planning commission of the local jurisdiction for a specific usage.

Significance: The establishing of a hazardous waste management facility may be economically desirable. It will provide employment and generate revenue. Also, it could retain existing and attract new waste generating companies and thus increase the economic stability of the planning area. The County Hazardous Waste Management Plan recognizes that companies may wish to locate near treatment plants in order to take advantage of the services offered by the facilities. New industrial tracts could be established for this purpose. This is encouraged since it minimizes the risks associated with the transportation of hazardous wastes.

Residuals respositories are land storage facilities which require considerably more acreage than other waste management facilities. It may be more appropriate to develop special zoning categories for them which can be applied whenever the criteria identify appropriate land.

Criteria:

<u>All Facilities</u>

Facilities which handle hazardous waste should strive to locate in industrial, commercial, or specially zoned lands to minimize the risks associated with the transportation and disposal of hazardous waste. Where applicable, lands should be rezoned to site hazardous waste facilities close to their point of generation.

CHANGES IN REAL PROPERTY VALUES

Definition:

Changes in real property value is defined as the expected change in property valuation due to nearby location of a hazardous waste facility.

Significance:

A hazardous waste facility may "stimulate change in real property values for a certain area around the facility"[1]. Such changes depend upon the surrounding land uses and the type of facility. It is also possible that a facility, in comparison with the present use of a site, could stimulate increases of property values.

Criteria:

All Facilities

If this is clearly an issue causing serious disagreement between the proposed facility developer and the community, the developer should fund an independent study of the issue. Both the developer and the local jurisdiction should agree beforehand upon the scope of the study and who will conduct it. The scope of the study and the sophistication of the study's methods should be appropriate to the nature and size of the facility and the community in which it is proposed

Mitigation:

If the independent study predicts a negative change in property values due to facility location, the applicant should provide a reasonable program for compensating the affected landowners. Compensation incentives could include a land value guarantee backed by contingency funds and insurance.

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[1] "Using Compensation and Incentives When Siting Hazardous Waste Facilities", U.S. EPA SW-942, July 1982.

DIRECT REVENUE TO LOCAL JURISDICTIONS

Definition: Direct revenue to local jurisdictions is defined as the present worth of the dollar amount of annual property tax revenue and any other direct payments (e.g., hazardous waste taxes, local usage and per capita taxes), the facility will contribute to the host municipality during the period of construction and the facility's operating life.

Significance: Constructing a hazardous waste facility may affect the revenues a local jurisdictions would have collected if the site remained in its present usage or was developed for another purpose.

Criteria:

All Facilities

The proposed facility's power for tax and revenue generation relative to both current site users and other reasonably prospective site users in terms of amount, stability, and cost to the municipality should not show a net loss.

Mitigation: Many compensation programs are possible which could offset the projected losses either directly or indirectly.

CHANGES IN EMPLOYMENT

Definition:

Changes in employment is defined as the total number of permanent full-time and part-time jobs resulting from the construction and operation of the facility, including the number of each type of job expected to be filled with residents.

Significance:

Substantial increases in employment can affect the socio-cultural make-up of the community, particularly in small communities and can affect the area socioeconomically.

Criteria:

All Facilities

If this clearly is an issue causing disagreement between the facility developer and the community, the developer should fund an independent study of issues. The developer and the County or city should agree beforehand on the scope of the study and who will conduct it. The sophistication of the study methods should be appropriate to the nature and size of the facility and the community's degree of concern with the particular issue.

Mitigation:

If the number of jobs accounts for a significant portion of employment in the area, the developer should provide appropriate programs to address the socioeconomic and public service impacts on the community.

II. USE OF THE SITING CRITERIA

The siting criteria presented here for the planning and evaluation of proposed sites for hazardous waste management facilities have broad applicability in the siting process. For each component of the siting process (i.e., site selection, site evaluation, site permitting, and facility permitting) the siting criteria can be applied either directly or indirectly during the decision making processes. The use of a standard set of siting criteria can add predictability to the siting process for all participants by providing uniformity in the planning and evaluation of proposed facilities. The siting criteria provide the proponent, the regulator, and the community with a rational set of factors on which to judge the attributes (both positive and negative) of a proposed facility.

In the site selection component, the siting criteria provide the facility developer with a set of guidelines and constraints to be used to screen potential sites for facilities. If the facility developer knows at the outset that the regulators will be evaluating the proposed sites with the same set of criteria, the facility developer is less likely to propose a site that will be unacceptable in terms of the criteria. The developer can determine the best site location with respect to achieving the criteria and eliminate locations that are deficient with respect to one or more crucial siting factors, especially those where mitigation measures would be limited, costly, or not feasible. The criteria also provide the facility developer with incentives to blend the proposed facility into existing and future land use patterns. In addition, the siting criteria were developed within the realm of current hazardous waste and environmental regulations applicable to facility siting, and by meeting the criteria the proposed facility will likely have fewer problems to be worked out in the permitting components of the siting process.

In the site evaluation component, the siting criteria provide the local land use planner and others with review responsibility, and with a uniform set of criteria for evaluating all proposals. In essence, the criteria act as a template against which all facility proposals can be compared. The criteria will identify pertinent issues which will need to be specifically addressed in the evaluation of the site and in the environmental impact assessment, particularly with regard to the adequacy of proposed mitigations and the need for additional mitigation. The criteria can also be used as a checklist to determine which issues are likely to be of concern and should be focused on in the public debate over the siting of the facility.

In the site permitting component, the siting criteria provide the decision-maker with a uniform set of factors on which to base judgments. If the proponent, decision-maker, and the public all view the proposed facility in the same context (i.e., through a uniform set of criteria) then the decisions on the facility will be based on the attributes of the facility and not on emotionalism or arbitrary judgment. By building a rational

decision-making process into the facility siting process, facility developers and decision-makers can work with each other rather than against each other.

In the facility permitting process, the regulators will evaluate the facility with respect to established performance criteria (i.e., current regulations). As these are incorporated into the siting criteria, the use of the siting criteria by the facility developer will allow the facility developer to incorporate the performance criteria into his site selection and facility design decisions.

The siting criteria are applicable to both informal and formal review and evaluation processes. The selection of a site will likely involve an informal use of the criteria (e.g., preliminary decisions based on visual siting or secondary information), whereas the site evaluation and permitting components will require formal review and evaluation processes in the form of technical studies and preparation of environmental impact analyses. But whether the criteria are applied formally or informally, the siting criteria provide an uniform set of constraints, standards, and guidelines to be used in evaluating proposed facilities within a rational decision-making process.

ATTACHMENT B

III. CHARACTERISTICS OF FACILITIES PERTINENT TO SITING

The following section describes the major characteristics of six basic types of hazardous waste management facilities pertinent to siting and some of the typical environmental protective measures that may be used to safeguard public health and safety and mitigate potential environmental impacts. The principal characteristics (Table 6A-2) and anticipated operation of these facilities are briefly discussed as well as the significance of certain siting requirements.

These facilities include:

- Transfer and storage facilities
- Treatment facilities
- Recycling facilities
- Solidification/stabilization facilities
- Incineration facilities
- Residuals repositories

Each type of facility can either be established as a separate facility or can serve as one component of a larger integrated complex (Figure 6A-1).

A. Waste Transfer and Storage Facilities

Hazardous waste transfer and storage facilities are essential to the overall management of hazardous wastes. Typically, such facilities serve as collection stations for small quantities of waste, combining like wastes to increase the quantities so that the wastes can be economically shipped to a treatment or

TABLE 6A-2
PRINCIPAL CHARACTERISTICS OF TYPICAL HAZARDOUS WASTE TREATMENT FACILITIES

Facility Category	Amount Annually (in Thousands of Tons)	Amount Weekly (in Thousands of Gallons)	Minimum Number of Incoming Vehicles Per Week: Trucks (4,000 Gallons Each)[1]	Minimum Number of Incoming Vehicles Per Week: Railcars (8,000 Gallons Each)[2]	Land Area (in Acres)	Number of Employees	Appearance From Outside Facility
Transfer station							
Small	10-15	23-110	6-23	3-14	1-3	2-5	Warehouse-style building with trucks entering to transfer material and
Large	30-40	70-300	18-75	9-38	5-10	5-10	Storage tanks near building surrounded by dikes
Treatment (e.g., treatment of aqueous waste)							
Small	10-12	46-65	12-14	6-7	3-5	15-20	Raised pools or holding basins with storage tanks near a few buildings and
Large	100-200	460-920	120-230	60-120	10-30	35-40	Surface aerators operating in open tanks and basins and Warehouse-style building with trucks entering to transfer material.
Recycling (e.g., recovery of liquid organics)							
Small	10-15	23-110	6-28	3-14	1-3	15-20	Appearance of small refinery, distillation towers, pipelines, and many storage tanks and
Large	30-40	70-300	18-75	9-38	5-10	45-60	Two industrial buildings and Visible dikes surrounding tank storage area and Occassional visible venting of steam from distillation equipment and Warehouse-style building with trucks entering to transfer material.

Note: [1] Assuming that all wastes are transported by trucks.
[2] Assuming that all wastes are transported by train.

Source: "Technical Reference Manual of the Guidelines for the Preparation of Hazardous Waste Management Plans", California Department of Health Services Toxic Substances Control Division, June 30, 1987.

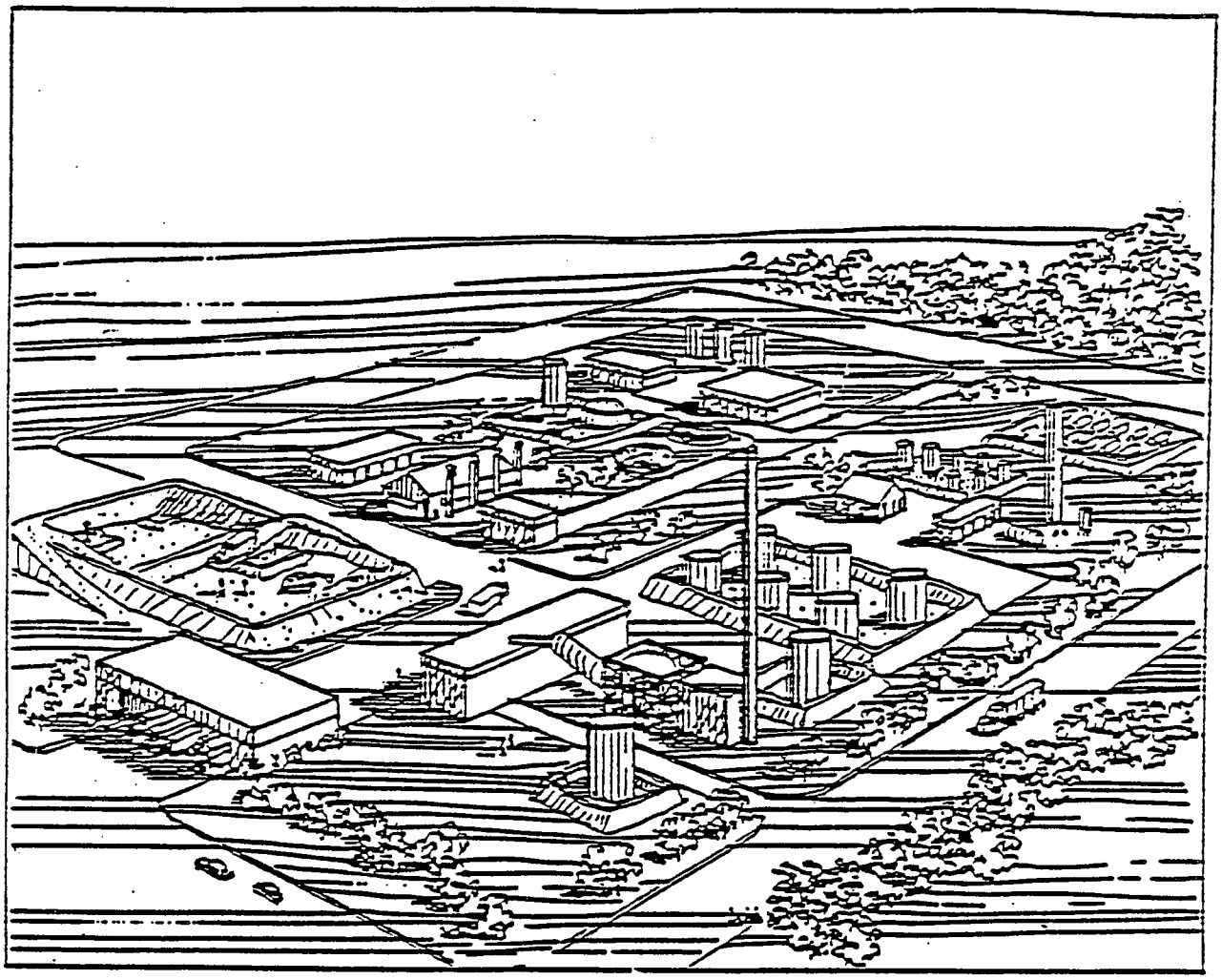
TABLE 6A-2 (CONT.)
PRINCIPAL CHARACTERISTICS OF TYPICAL HAZARDOUS WASTE TREATMENT FACILITIES

Facility Category	Amount Annually (in Thousands of Tons)	Amount Weekly (in Thousands of Gallons)	Minimum Number of Incoming Vehicles Per Week		Land Area (in Acres)	Number of Employees	Appearance From Outside Facility
			Trucks (4,000 Gallons Each)[1]	Railcars (8,000 Gallons Each)[2]			
Solidification or Stabilization							
Small	5-15	16-47	4-12	2-6	1-2	5-10	Industrial building with silos nearby for storage of dry chemicals and
Large	50-100	160-310	40-78	20-39	5-10	26-30	Warehouse-style building with trucks entering to transfer material.
Incineration							
Small	5-10	12-76	3-19	2-10	4-6	2-3	Tall smokestack which emits steam and
Large	60-70	140-530	35-130	13-65	8-10	2-12	Visible storage tanks for waste and Warehouse-style building with trucks entering to transfer material.
Repository for treated residues							
Small (25- to 50- year life span)	10-20	No liquids	9-18	5-9	50-100	15-20	Area surrounded by five-foot-high landscaped berm partially covered by Quonset hut-shaped moveable roof.
Large (50- to 60- year span)	40-60	No liquids	36-54	18-27	200-300	20-25	

Note: [1] Assuming that all wastes are transported by trucks.
[2] Assuming that all wastes are transported by train.

Source: "Technical Reference Manual of the Guidelines for the Preparation of Hazardous Waste Management Plans", California Department of Health Services Toxic Substances Control Division, June 30, 1987.

FIGURE 6A-1
A HYPOTHETICAL INTEGRATED WASTE MANAGEMENT FACILITY



Source: "An Introduction to Facilities for Hazardous Waste Management", Clark-McGlennon Associates; Boston, Massachusetts; November 1980.

recycling facility. Such facilities are usually located in urban-industrial areas at or near the source or waste generation, although they may also be located in rural areas where waste volumes are typically too small from a single generator to justify shipping costs to a treatment or recycling center.

Hazardous wastes may arrive at transfer and storage stations by rail, vacuum, flatbed or tank trucks. Here, the waste manifest is examined and wastes are analyzed to confirm their identity, degree of hazard and compatibility with other wastes. They are then separated as liquids, solids, and sludges according to their overall chemical characteristics and kept separate from incompatible wastes. Drums may be transferred directly by forklift from a receiving area to the storage buildings.

Uncontainerized dry, solid hazardous waste is transferred to bins or tanks by dump truck, and, in some cases, by conveyer systems. Uncontainerized liquids, sludges, or slurries are transferred by pipeline from tank trucks to the appropriate storage tanks. Wastes can then be transported from the center to a treatment or recovery facility, an incinerator or a stabilization unit.

Some of the principal characteristics of a typical transfer and storage facility (large and small) are included in Table 6A-2.

A typical transfer station occupies from 1 to 10 acres and has between 2 to 10 employees. This type of facility may be distinguished primarily by its storage tanks surrounded by protective dikes (Figure 6A-2). In many industrial areas, these tanks and the warehouse-style truck transfer buildings often would be visually compatible with their surroundings.

Environmental Protection Measures:

Table 6A-3 describes some of the typical environmental protection measures for transfer and storage facilities. An annual waste throughput of 10,000 tons could involve weekly incoming traffic ranging from 6 to 75 or more trucks, or 3 to greater than 38 rail cars. This level of transportation activity may increase noise and congestion in the vicinity of the facility.

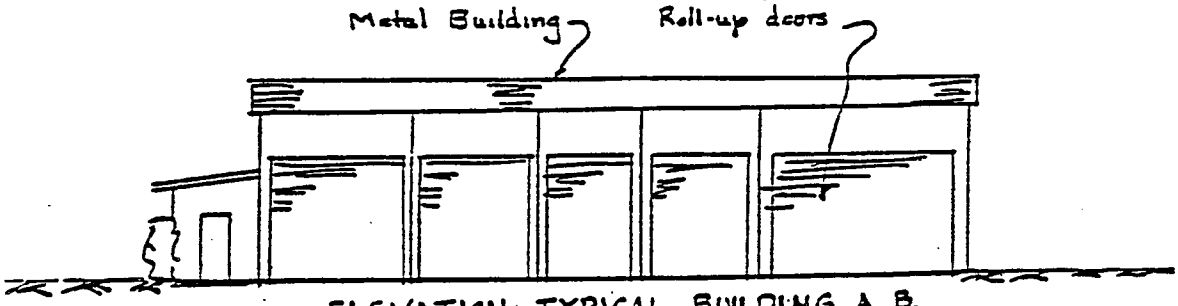
Control over emissions of air pollutants at waste transfer and storage facilities may be achieved by specially designed air pollution control equipment. Some general examples of air pollution control technology include:

* Use of operational controls at conveyer belts, tank and bin stacks and equipment vents.

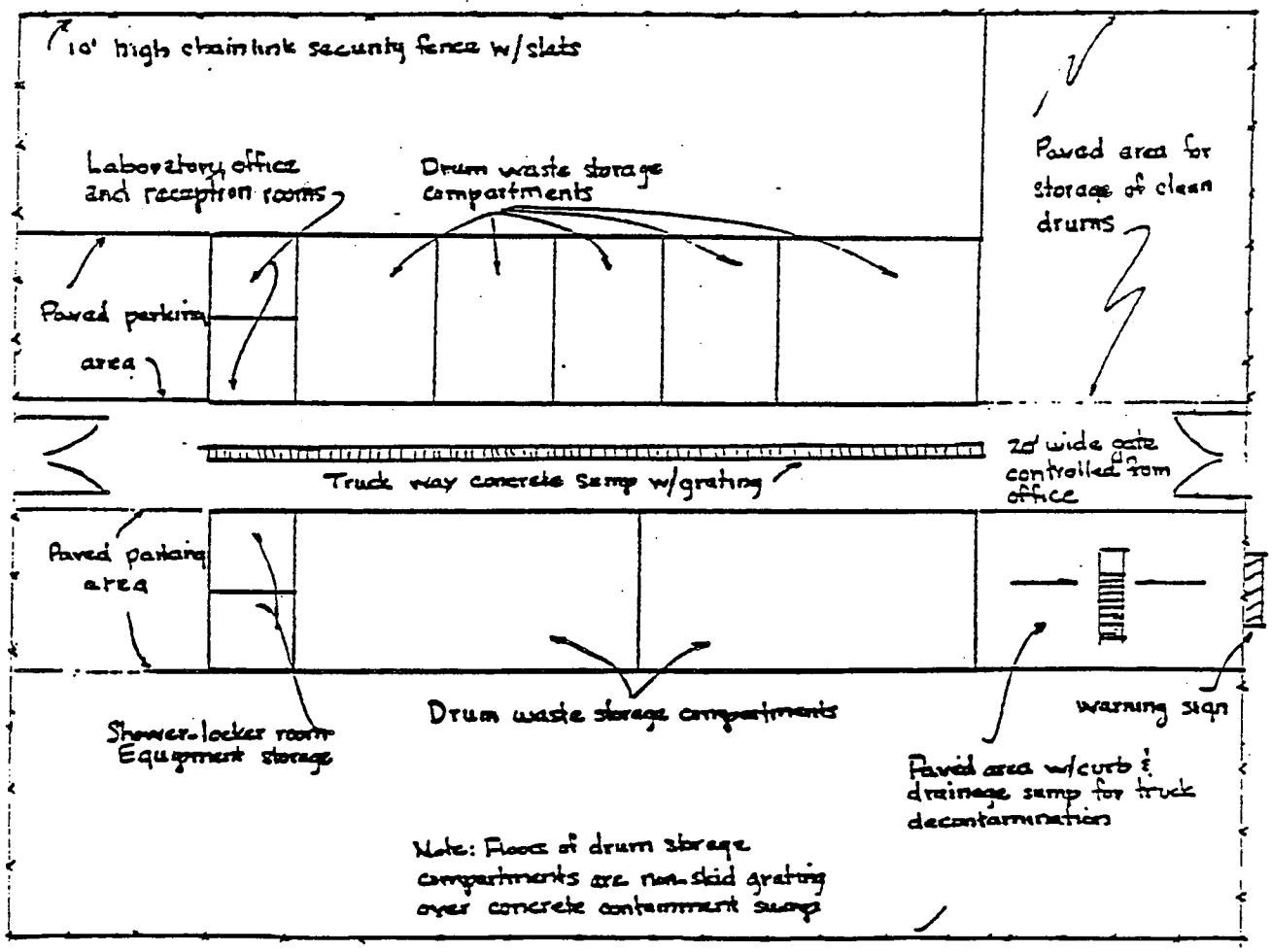
* Collect/contain dusts and vapors by dust-handling and vapor recovery systems utilizing flexible boots, hoods, blowers, ducts, baghouses, scrubbers and associated equipment.

* Maintain tight seals at storage tanks, valves, flanges and fittings to avoid releases of liquids.

FIGURE 6A-2
TRANSFER STORAGE FACILITY



ELEVATION: TYPICAL BUILDING A, B.



PLOT PLAN Scale: 1" = 30'0"

Source: Gloria McGregor: McGregor-Munsey and Associates; Davis, California.

TABLE 6A-3
ENVIRONMENTAL PROTECTION MEASURES AT
TRANSFER AND STORAGE FACILITIES

Type of Measure	Description of Measure
Sampling and analysis procedures	Ensure that runoff is confined through automatic analysis of drainage tied into alarms, and an electronically activated shut-off system.
	Daily
Inspections	Inspect drums and tanks for leaks.
	Inspect level of liquid in tanks and lagoons.
	Inspect seams, valves, and pumps.
	Inspect the overall condition of tanks.
	Annual
	Water-fill and pressure-test tanks to detect any leakage.
Air pollution controls	Install and operate controls at the waste-transfer building.
	. Baghouse to control particulate emissions.
	. Vapor recovery system or carbon canisters to absorb organic vapors.
	Maintain closed storage of all volatile materials.
	Control emissions at tanks containing volatile materials.
	. Scrubbers to cleanse vapors.
	. Inert gas blanketing or floating roofs.

Source: "Technical Reference Manual of the Guidelines for the Preparation of Hazardous Waste Management Plans", California Department of Health Services Toxic Substances Control Division, June 30, 1987.

* Use inert or pacified materials to prevent corrosive chemicals from mixing with incompatible substances.

It should be emphasized that these control technologies do not necessarily constitute the Best Available Control Technology (BACT) and each facility may need to be evaluated on a case-by-case basis on energy, environmental and economic impacts, as well as technological feasibility.

Typical examples of water pollution control mechanisms include dikes, drains, curbs, impermeable floors and loading areas designed to contain possible spills. Regular monitoring of ground and surface water may also be required by the Regional Water Quality Control Board to provide early warning of any leaks.

Overall, the impacts of such a facility upon a community can be expected to be minimal, given modern emissions control technologies and good management procedures. An emergency response plan would be an integral part of the facility's basic hazardous waste management plan.

B. Treatment Facilities (Example: Aqueous Hazardous Waste Treatment Facilities)

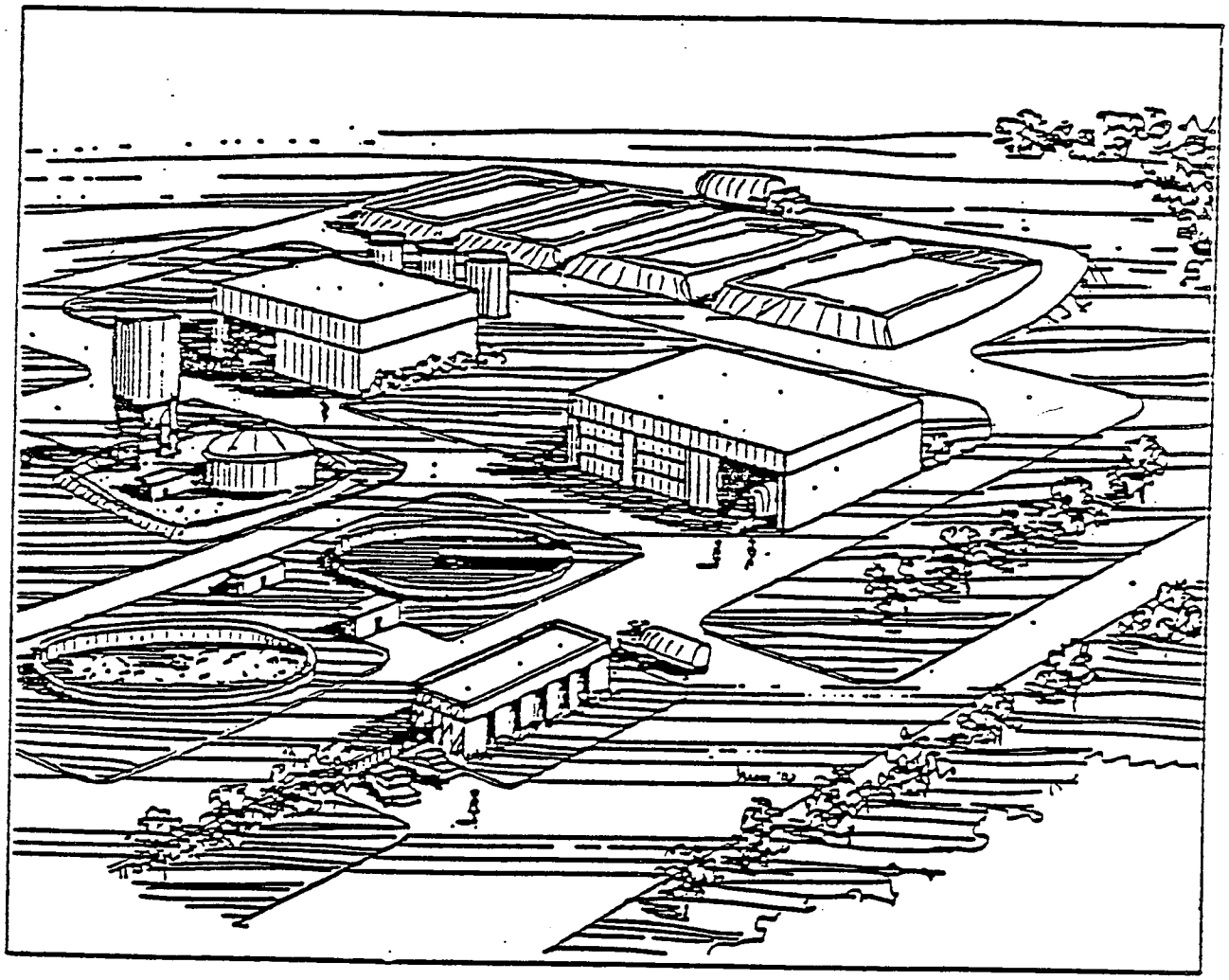
A small liquid waste treatment facility may cover only 3 acres, whereas a large one may require 30 acres. An advanced waste treatment facility may typically employ 15 to 40 trained workers and can treat up to 200,000 tons of liquid wastes annually for a large facility. This would imply the arrival of at least 185 tanker trucks or 120 railcars every week. Smaller treatment facilities would have commensurately lower traffic volumes. As shown in Figure 6A-3, an aqueous treatment center visually resembles a typical municipal sewage treatment plant.

Water contaminated with hazardous wastes may arrive at a treatment facility from a transfer station, a liquid organics recovery facility or, directly from a large waste-generating industries. Various processes are then employed to remove heavy metals, reactive ions, and organic matter. Acid and alkaline wastes undergo pretreatment in separate unloading basins. The metals or to detoxify selected chemicals. Treated wastewater effluent is discharged to a sewer or to an evaporation pond. The sludges that are formed are sent to an incinerator or to a biological waste converter, or are stabilized for subsequent land disposal.

Environmental Protection Measures:

Some typical environmental protection measures are included in Table 6A-4. Air pollution control techniques can be applied and containment facilities can be designed to prevent releases of wastewater to surface. (They may be required as part of facility's operations permit).

FIGURE 6A-3
AQUEOUS TREATMENT



Source: "An Introduction to Facilities for Hazardous Waste Management", Clark-McGlennon Associates; Boston, Massachusetts; November 1980.

TABLE 6A-4
ENVIRONMENTAL PROTECTION MEASURES AT
AQUEOUS WASTE TREATMENT FACILITIES

Type of Measure	Description of Measure
Sampling and analysis procedures	Conduct automatic analysis of effluents, tied into electronically activated emergency shutoffs.
	Sample all products of processes, and all vapors.
Air pollution control	Aerate odorous wastes in a building equipped with a foul-air scrubber.
Inspections	Daily
	Inspect emergency shut-off and safety devices.
	Update process control and operational data.
	Weekly
	Inspect construction materials at chemical reactors.
	Monthly
	Calibrate process control devices and emissions control devices.

Source: "Technical Reference Manual of the Guidelines for the Preparation of Hazardous Waste Management Plans", California Department of Health Services Toxic Substances Control Division, June 30, 1987.

C. Recycling (Example: Organics Recovery Facilities)

Facilities that are engaged in the recovery of liquid organics, solvent distillation, or re-refining have many similarities to a small refinery or petrochemical plant. To the ordinary observer, the many storage tanks, or petrochemical plant. To the ordinary observer, the many storage tanks, pipelines, or distillation towers as illustrated in Figure 6A-4 would be indistinguishable from a modern products refinery. Occasional venting of steam from distillation equipment may reinforce this impression.

A typical liquid organics recovery facility could cover between one and ten acres and would range from 15 to 60 employees. The size of waste throughput and resulting truck or rail traffic may be roughly equivalent to that found at a typical waste transfer and storage facility.

Liquid hazardous wastes containing solvents, oils, and other organics arriving at the recovery facility may be analyzed at an on-site laboratory to identify those constituents valuable enough to recycle. Decisions are then made regarding those components which can be reclaimed, incinerated, or converted to usable or stable residues. Solvents and oils may be separated and clarified, respectively, by physical processes such as distillation/condensation and filtration. Toxic vapors can be destroyed by incineration or collected on absorbents. The purified solvents and oils can be stored, recycled, blended into fuels, or shipped out as industrial raw materials. Residues or sludges from this facility can also be incinerated, extracted for metals, or "stabilized" prior to land disposal. Wastes remaining after recovery procedures have been completed are then sent to an aqueous waste treatment facility for further processing.

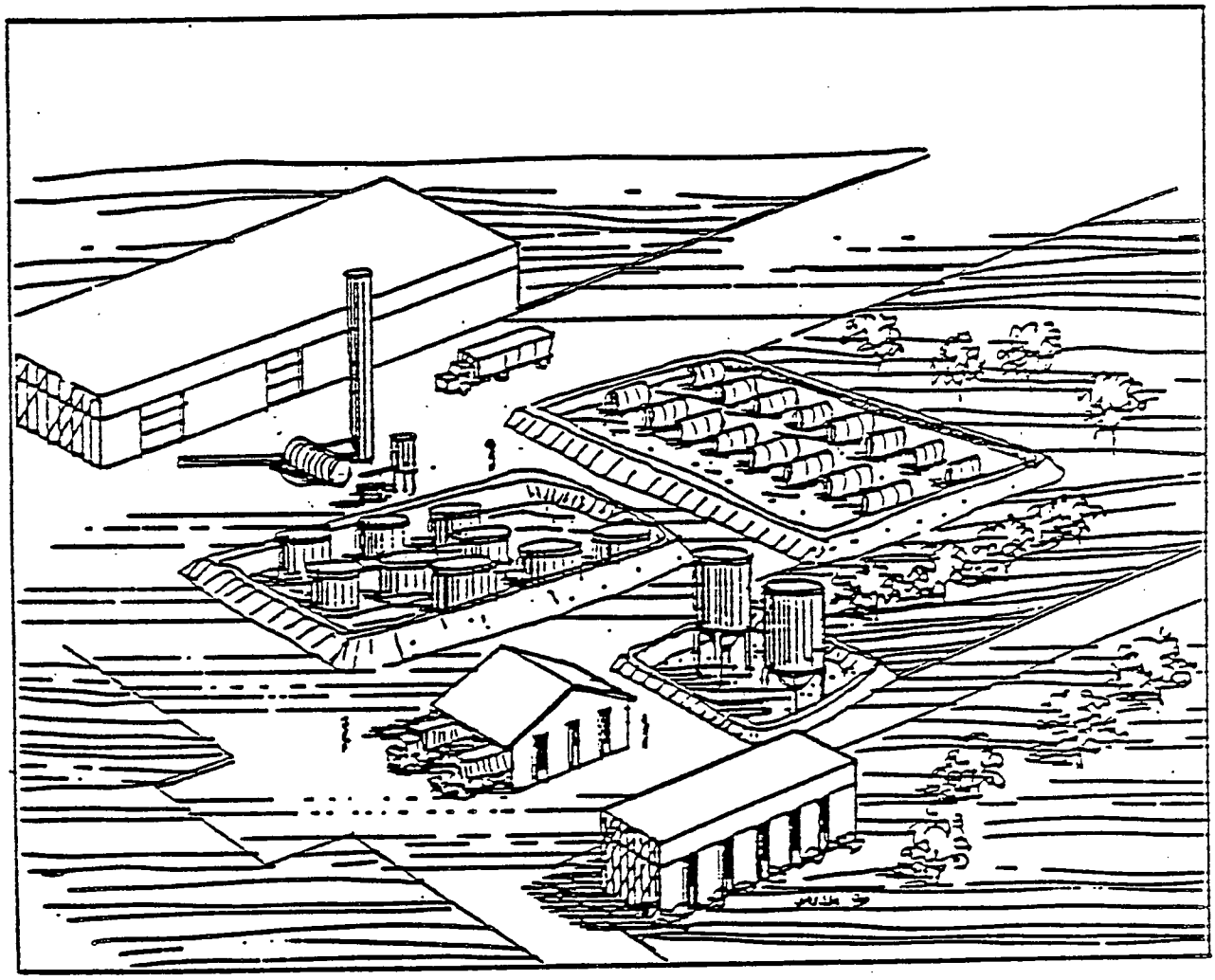
Environmental Protection Measures:

As with a transfer and storage facility, good seals at flanges, valves, and fittings are relied upon to prevent emissions of harmful vapors from organics recovery facilities (Table 6A-5). Again, possible leaks or spills would be contained by dikes, drains, and basins. Detectors, alarms, and process controls monitor air emissions and water effluents. An emergency response plan must be developed for the facility as for all hazardous waste management facilities. Storage tanks and transfer lines may utilize vapor recovery and vacuum transfer. With equipment properly operating, no odors, fires, or explosions are anticipated from a recovery facility; however, steam plumes from its operations will be visible.

D. Solidification and Stabilization Facilities

As shown in Figure 6A-5, a solidification facility would be seen as a large industrial building with several tall silos attached for storage of dry chemicals. These facilities range in size 1 to 10 acres and employ from 5 to 30 individuals. A wide range of waste throughput is again possible, from a low of 5,000 tons per year of material to be solidified, up to as much as 100,000 tons

FIGURE 6A-4
LIQUID ORGANICS RECOVERY



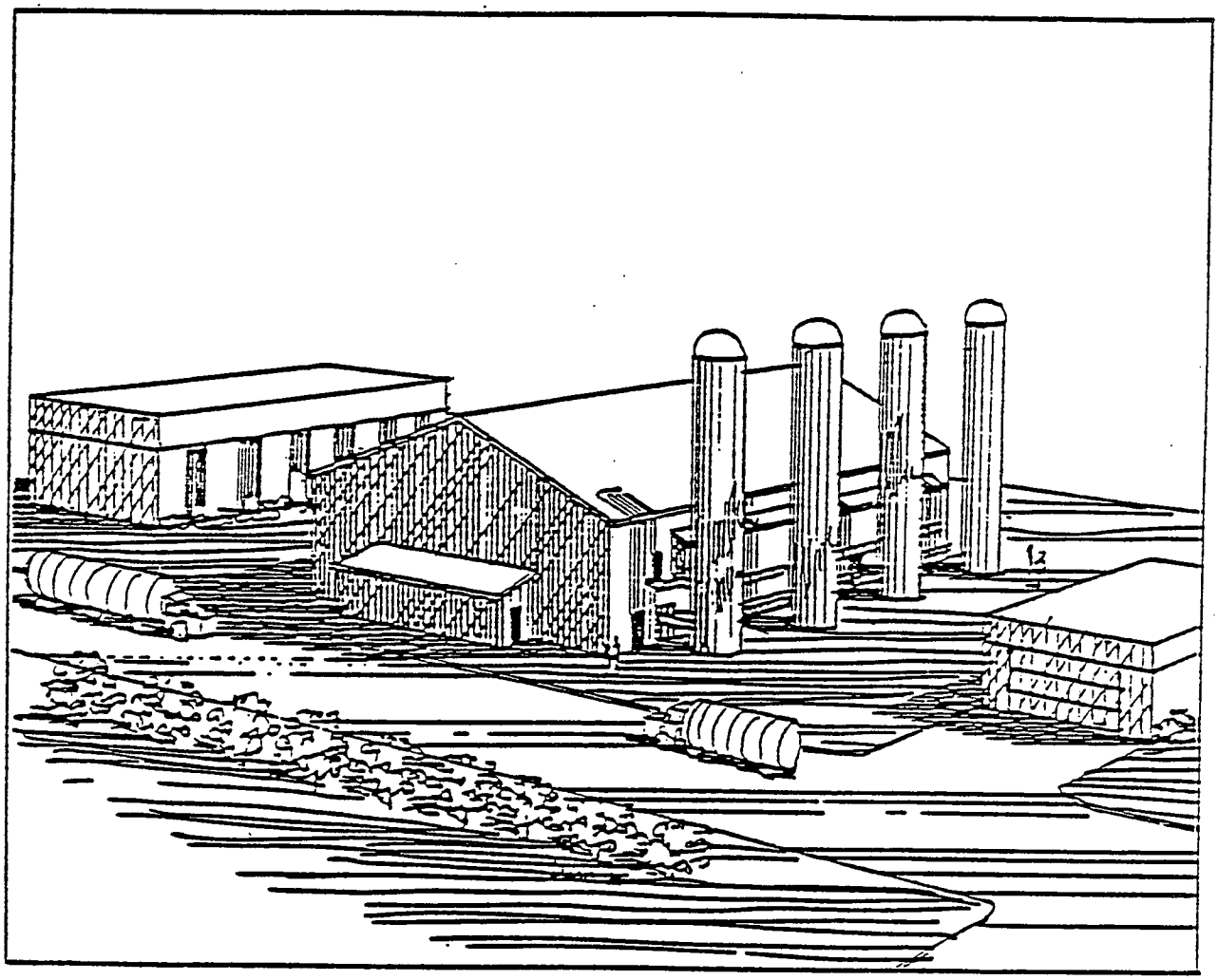
Source: "An Introduction to Facilities for Hazardous Waste Management", Clark-McGlennon Associates; Boston, Massachusetts; November 1980.

TABLE 6A-5
ENVIRONMENTAL PROTECTION MEASURES AT
ORGANICS RECOVERY FACILITIES

Type of Measure	Description of Measure
Sampling and analysis	Sample and analyze air emissions at distillation, refining, and fuel-blending facilities.
Monthly calibrations	Calibrate process control and emissions control devices.
Air pollution controls	Recycle vapors from boiling liquids through condensers for cooling, liquification, and subsequent use. Cool unusable residuals for subsequent incineration or burial elsewhere. Use vacuum equipment to prevent leaks. Nonvolatile liquid blanketing.
Water pollution controls	Install a structurally sound containment structure impervious to and compatible with wastes at the facility, and monitor its adequacy. Monitor nearby groundwater. Prevent spillovers by using level-detection devices on tanks and lagoons tied in to pump cutoff switches and alarms.

Source: "Technical Reference Manual of the Guidelines for the Preparation of Hazardous Waste Management Plans", California Department of Health Services Toxic Substances Control Division, June 30, 1987.

FIGURE 6A-5
SOLIDIFICATION



Source: "An Introduction to Facilities for Hazardous Waste Management", Clark-McGlennon Associates; Boston, Massachusetts; November 1980.

per year. Transportation requirements would vary as a function of the quantities of waste actually being handled.

Environmental Protection Measures:

Any solidified waste should pass a standardized leachate test to ensure nonmigration of harmful constituents prior to placement in a residuals repository. Monitoring of air emissions from the encapsulation process and of water effluents from a solidification pond is necessary to maintain environmental standards. Containment of spills or leakage would be required.

E. Incinerators

Figure 6A-6 illustrates a typical rotary kiln incinerator. Such a facility has some obvious visual and aesthetic impacts. The tall smokestack is evident, as are storage tanks and support buildings. Careful operation of the incinerator is mandatory; this includes good monitoring of the quality of the waste feed-streams, the stack exhaust, and the "bottoms" residue. Table 6A-6 presents the environmental protection measures typical to incineration. Spill containment and establishment of an emergency response plan are included in this facility's management plan. cyclones and electrostatic precipitators or baghouses may be needed to trap fly ash and aerosols to avoid their entry into the atmosphere. Scrubbers or alkaline additives may be required to limit acidic gases to acceptable levels.

Environmental Protection Measures:

Incinerator operations typically require from 4 to 10 acres of land and employ from 2 to 12 individuals. A small incinerator may destroy 5,000 tons of waste per year, necessitating only 5 truckloads of waste per week. A large incinerator could handle up to 100,000 tons annually, and be served by 92 trucks per week.

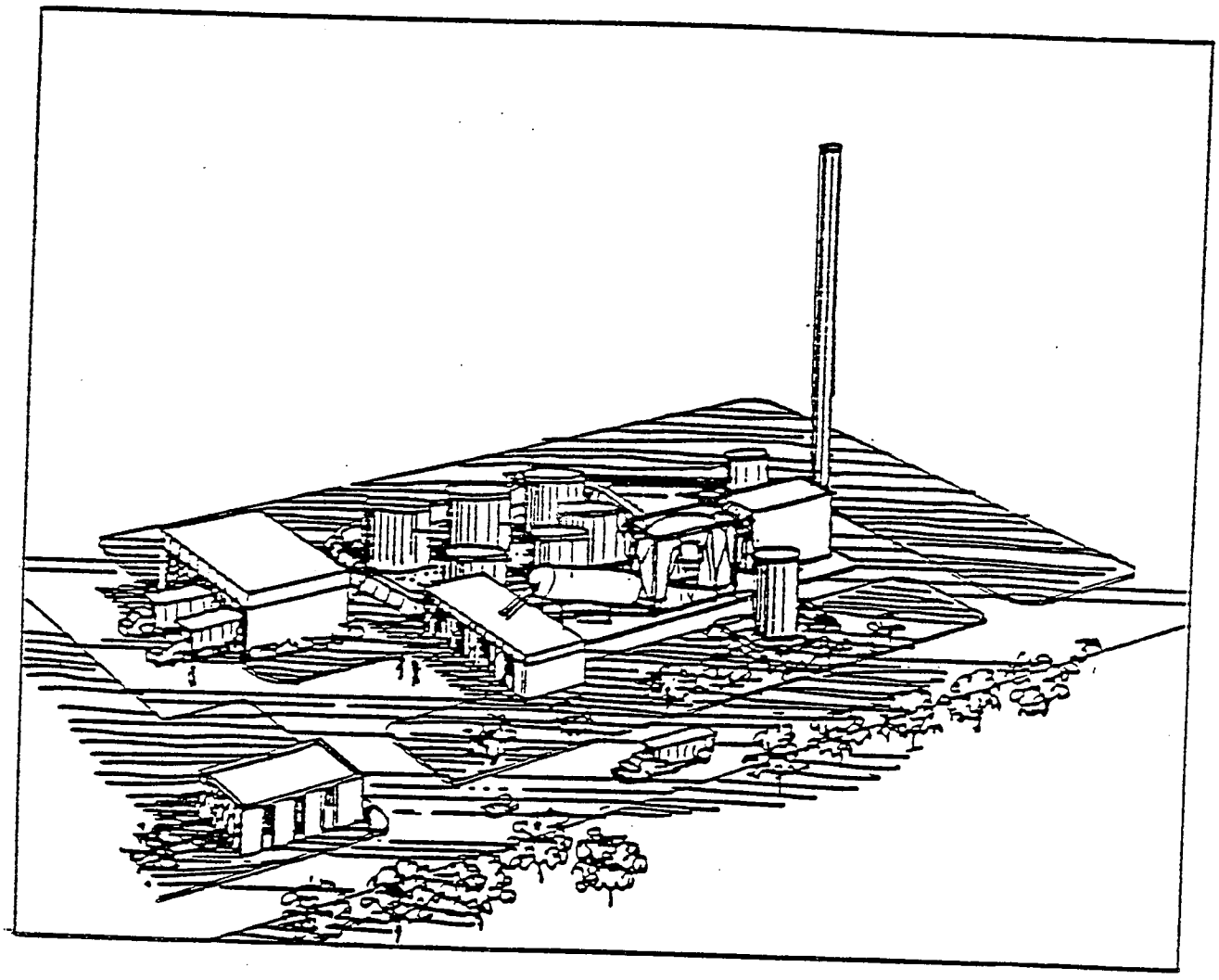
F. Repositories for Treated Residues

The Southern California Hazardous Waste Management Project commissioned a conceptual design and feasibility study of a 200-acre facility to receive and deposit 160,000 cubic yards of residual material per year for 25 years. (See Figure 6A-7 for conceptual design). Three distinct types of cells were devised for residuals emplacement, as follows:

1. Main Cells: Four cells of approximately 530 feet by 1,600 feet dimensions and having a total height of 60 feet would be constructed. Construction would proceed downgradient at a pace commensurate with the receipt of residuals.

2. Weather Cells: Three cells of approximately 120 feet by 800 feet dimension and having a total height of 20 feet would be constructed. A mobile, permanent roof structure would be used to cover the active deposition area to prevent precipitation from reaching the residues.

FIGURE 6A-6
ROTARY KILN INCINERATION



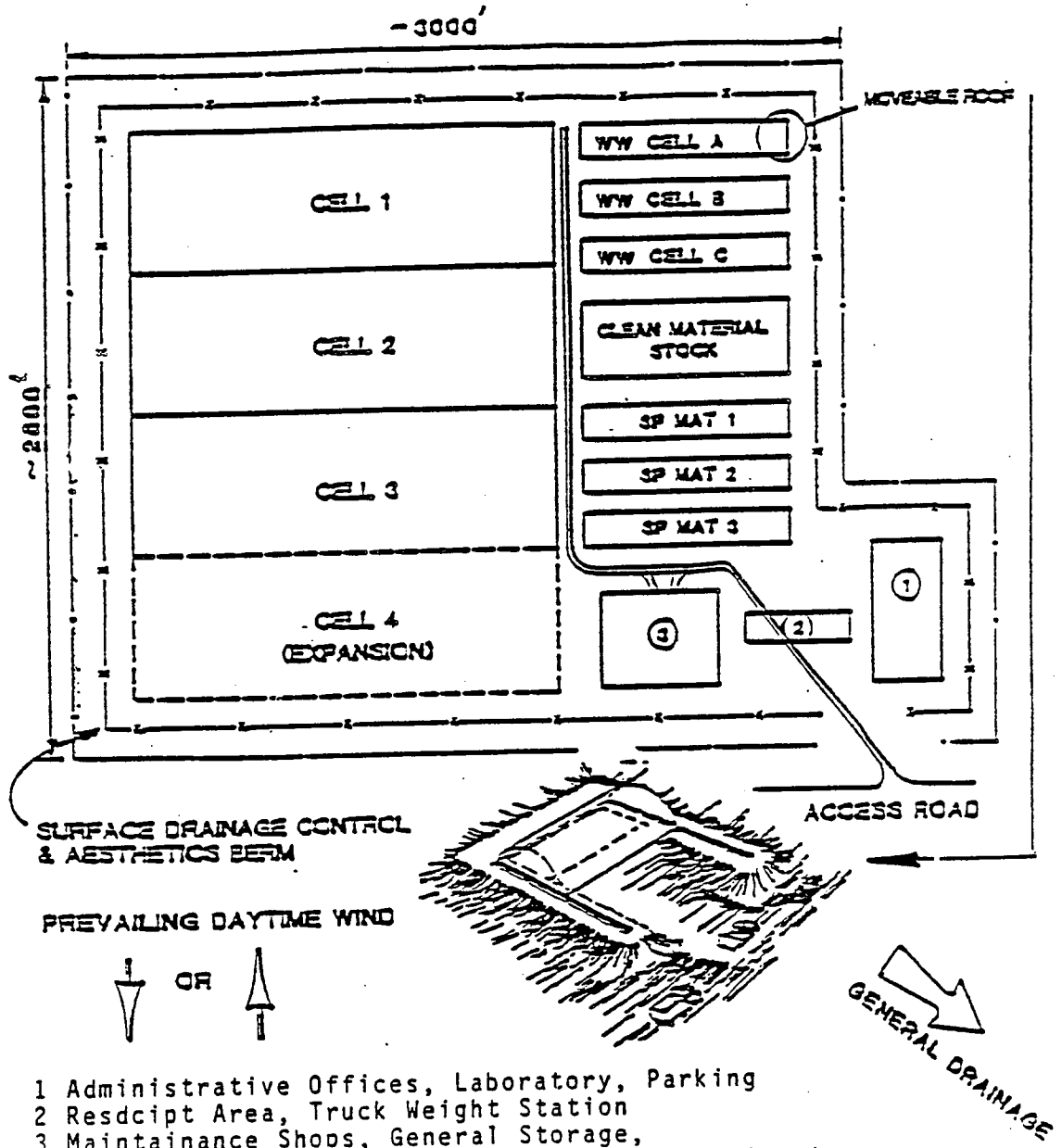
Source: "An Introduction to Facilities for Hazardous Waste Management", Clark-McGlennon Associates; Boston, Massachusetts; November 1980.

TABLE 6A-6
ENVIRONMENTAL PROTECTION MEASURES AT INCINERATORS

Type of Measure	Description of Measure
Sampling and analysis procedures	Conduct automatic analysis of gases for toxic chemicals, carbon monoxide, oxides of nitrogen and sulfur, and opacity, tied in to electronically activated emergency shut-off mechanism. Periodically analyze residues from incineration.
Air pollution controls	Use afterburner or catalytic oxidizer to heat exhaust gases from the combustion area to a temperature that converts organics to inorganics and inert gases. Use an electrostatic precipitator or baghouse to remove particulates from exhaust gas. Use a mist of water and chemicals in a scrubber to remove chemicals from exhaust gas.
Inspections	Every 15 Minutes Inspect combustion and emissions control devices. Hourly Inspect plume from stack (use an opacity meter). Daily Inspect safety devices. Inspect emergency shutoffs of feed streams. Inspect pipelines and pumps. Update process control and operational data (e.g., temperature, pressure, and flow rates). Monthly Calibrate process control devices and emissions control devices.

Source: "Technical Reference Manual of the Guidelines for the Preparation of Hazardous Waste Management Plans", California Department of Health Services Toxic Substances Control Division, June 30, 1987.

FIGURE 6A-7
RESIDUALS REPOSITORY



1 Administrative Offices, Laboratory, Parking
2 Resdcipt Area, Truck Weight Station
3 Maintainance Shops, General Storage, Wastewater Treatment Plant, Truck Decontamination Station, Temporary Storage for Encapsulated Monoliths or Durms

Note: In actual practice exterior berming would be shaped in plan and elevation to present a more natural appearance.

Source: "Appolonia Waste Management Services, Residuals Repository Conceptual Design and Feasibility Study", February 1984.

3. Special Purpose Cells: Three cells sized and operated as wet weather cells would be constructed to dispose of residuals which are judged to have a relatively high potential for recovery at some future time to obtain the values of metals contained in the wastes.

Environmental Protection Measures:

Included in Table 6A-6 are some of the environmental protection measures that can be used in the future. Major cells would be operated during the normal dry weather in order to promote drying of the residual prior to final cover. During periods of rain, temporary sheeting would be used to keep the cells dry. Permanent closure would be accomplished as the residuals are received.

The design and operation of the facility would be such as to keep the residuals dry as practical to prevent the formation of leachate.

PART III

ATTACHMENTS

ATTACHMENT I

NOTICE OF PREPARATION (NOP) DATED DECEMBER 16, 1987, OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

LIST DATED DECEMBER 14, 1987 OF PERSONS AND AGENCIES TO WHOM THE NOP LETTER OF DECEMBER 16, 1987 WAS SENT.

CO NTY OF LOS ANGEL_S

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE:

P-4

December 16, 1987

NOTICE OF PREPARTION OF AN ENVIRONMENTAL IMPACT REPORT FOR THE LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

Pursuant to the regulations of the California Environmental Quality Act (CEQA), the Los Angeles County Department of Public Works (LACDPW) will prepare an Environmental Impact Report (EIR) for the Los Angeles County Hazardous Waste Management Plan (CoHWMP).

The CoHWMP will establish policies and guidelines for proper planning and management of hazardous waste on a County-wide basis. It will offer programs and establish siting criteria for development of needed hazardous waste management facilities to effectively serve the public need. However, the CoHWMP will not designate specific sites for facility locations. As such the EIR is not intended to provide definitive information on all impacts and mitigation measures for siting facilities, because that can only be accomplished for specific sites and definite projects. As they develop, individual projects must each fully comply with all requirements of CEQA.

The LACDPW is intrested in receiving your views and concerns as to the scope and content of the EIR. Enclosed is a copy of the Initial Study of Environmental Factors for this project.

Please direct your written response and any questions as soon as possible but not later than 30 days from receipt of this notice to:

Attention Mr. Michael Mohajer
Los Angeles County Department of Public Works
P.O. Box 4089
Los Angeles, CA 90051

Pursuant to Section 21080.4(a) of the Public Resources Code all responses must be submitted by certified mail.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

N. C. DATWYLER
Assistant Deputy Director
Planning Division

CRN:rg/CRNIN

Enc.

December 14, 1987

File No. 1.21
Notice to Preparation of
Environmental Impact Report
for the Los Angeles County
Hazardous Waste Management Plan

A COPY OF THE ATTACHED LETTER WAS SENT TO EACH OF THE FOLLOWING:

Mr. Robert Ghirelli
Executive Director
California Water Quality Control Board
Los Angeles Region
107 South Broadway, Room 4027
Los Angeles, CA 90012

Mr. O. S. Butterfield
Executive Officer
Regional Water Quality Control Board
Lahotan Region
2092 Lake Tahoe Boulevard
P.O. Box 9428
Salt Lake City, CA 95731-2428

Mr. Don Watson, District Director
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CRN:rg/CRNAD/7
P-4

Attach.

bc: Planning

ATTACHMENT II

LETTER DATED DECEMBER 31, 1987 FROM STATE OFFICE OF PLANNING AND RESEARCH TO REVIEWING AGENCIES TRANSMITTING NOP FOR DRAFT EIR FOR LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN.

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR

GEORGE DEUKMEJIAN, Governor

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

DATE: December 31, 1987

TO: Reviewing Agencies

RE: The County of Los Angeles' NOP for
EIR For The Los Angeles County Hazardous Waste Mgmt Plan
SCH# 87122312

Attached for your comment is the County of Los Angeles' Notice of Preparation of a draf· Environmental Impact Report (EIR) for the EIR for the Los Angeles County Hazardous Waste Mgmt. Plan Project.

Responsible agencies must transmit their concerns and comments on the scope and content of the EIR, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Michael Mohajer
County of Los Angeles
P.O. Box 4089/Department of Public Works
Los Angeles, CA 90051

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call Keith Lee at 916/445-0613.

Sincerely,

David C. Nunenkamp
Chief
Office of Permit Assistance

Attachments]

cc: Michael Mohajer

SCH: 87122312

'S': Sent by Lead 'X': Sent by SCH

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...on Taylor
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...t. of Health
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...nto, CA 95814
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916/225-2045

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714/782-4130

SAN DIEGO REGION (9)
9771 Clairemont Mesa Blvd., Suite B
San Diego, CA 92124-1331
619/265-5114

ATTACHMENT III

LETTER DATED MARCH 13, 1988 TO STATE CLEARING HOUSE REGARDING NOTICE OF COMPLETION AND ENVIRONMENTAL DOCUMENTATION TRANSMITTAL FORM.

C U TY OF LOS ANGF E
DEPARTMENT OF PUBLIC WORKS
900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE REFER TO FILE: WM-2

March 31, 1988

Mr. Glenn Stober, Manager
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Dear Mr. Stober:

OFFICIAL REVIEW OF THE MARCH 1988 ENVIRONMENTAL IMPACT REPORT (SCH #87122312) FOR THE LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

As required by the California Environmental Quality Act (CEQA), enclosed please find a copy of the Notice of Completion and Environmental Document Transmittal Form and 15 copies of the March 1988 Draft Environmental Impact Report (EIR) for the Los Angeles County Hazardous Waste Management Plan (CoHWMP).

Under newly enacted legislation, AB 2948 (Tanner), each county in the State of California is required to prepare a county hazardous waste management plan. The CoHWMP goal is to provide a multi-faceted system for management of hazardous waste on a countywide basis which would protect the public health, environment and economy. Copies of the Draft CoHWMP were provided to your office on or about January 8, 1988.

This Draft EIR is prepared to ensure that all environmental impacts resulting from approval and implementation of the CoHWMP are properly addressed.

The Draft EIR was prepared by the Los Angeles County Department of Public Works and is being submitted for a 45-day review and comment period pursuant to the provisions of the CEQA. Upon review of the comments received, the Final Draft of the EIR will be prepared. We request that you make the necessary distribution to the appropriate State agencies.

I hope that this information will enable you to expedite this most important review of the Draft EIR and I earnestly solicit the cooperation from each of the appropriate State agencies in completing their review within the minimum possible time, but not later the May 15, 1988. We request that comments be submitted to:

Los Angeles County Department
of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460
Attention Mike Mohajer

Should there be any questions regarding this matter, please contact the undersigned, Project Manager for the preparation of the CoHWMP and EIR, at (818) 458-3561.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

M. Micheal Mohajer
Supervising Civil Engineer III
Waste Management Division

MMM:ts/STATE

Enc.

...ll to: State Clearinghouse, 1400 Tenth Street, Room 121, Sacramento, CA 95814 — 916/445-0613

...NOTICE OF COMPLETION AND ENVIRONMENTAL DOCUMENT TRANSMITTAL FORM

See NOI below
SCH # 87122312

1. Project Title: Draft EIR - County Hazardous Waste Management Plan (CoHWMP)
2. Lead Agency: L.A. County Dept. of Public Works 3. Contact Person: Michael Mohajer or Al Hearne
3a. Street Address: 900 S. Fremont Avenue 3b. City: Alhambra
3c. County: Los Angeles 3d. Zip: 91802-1460 3e. Phone: (818) 458- 3562
PROJECT LOCATION 4. County: Los Angeles 4a. City/Community: Entire County
4b. Assessor's Parcel No. N/A 4c. Section N/A Twp. N/A Range N/A
5a. Cross Streets: N/A 5b. For Rural, Nearest Community: N/A
6. Within 2 miles: a. State Hwy # N/A b. Airports N/A c. Railways N/A d. Waterways N/A
7. DOCUMENT TYPE
CEQA
01. ___ NOP
02. ___ Early Cons
03. ___ Neg Dec
04. X Draft EIR
05. ___ Supplement/Subsequent EIR
Prior SCH No.: _____)
NEPA
09. ___ NOI
10. ___ Draft EIS
11. ___ FEIS
12. ___ EA
OTHER
13. ___ Joint Document
14. ___ Final Document
15. ___ Other
8. LOCAL ACTION TYPE
01. ___ General Plan Update
02. ___ New Element
03. ___ General Plan Amendment
04. ___ Master Plan
05. ___ Annexation
06. ___ Specific Plan
07. ___ Community Plan
08. ___ Redevelopment
09. ___ Rezone
10. ___ Land Division (Subdivision, Parcel Map, Tract Map, etc.)
11. ___ Use Permit
12. ___ Waste Mgmt Plan
13. ___ Cancel Ag Preserve
14. X Other CoHWMP
9. DEVELOPMENT TYPE N/A
01. ___ Residential: Units ___ Acres ___
02. ___ Office: Sq. Ft. ___ Acres ___ Employees ___
03. ___ Shopping/Commercial: Sq. Ft. ___ Acres ___ Employees ___
04. ___ Industrial: Sq. Ft. ___ Acres ___ Employees ___
05. ___ Water Facilities: MGD ___
06. ___ Transportation: Type ___
07. ___ Mining: Mineral ___
08. ___ Power: Type ___ Watts ___
09. ___ Waste Treatment: Type ___
10. ___ EOS Related
11. ___ Other: ___
10. TOTAL ACRES: N/A 11. TOTAL EMPLOYMENT (Estimated): N/A

12. PROJECT ISSUES DISCUSSED IN DOCUMENT

X Aesthetic/Visual	___ Flooding/Drainage	___ Septic Systems	X Water Quality
___ Agricultural Land	X Geologic/Seismic	___ Sewer Capacity	___ Water Supply
X Air Quality	___ Jobs/Housing Balance	X Soil Erosion	___ Wetland/Riparian
X Archaeological/Historical	___ Minerals	___ Solid Waste	X Wildlife
___ Coastal Zone	X Noise	X Toxic/Hazardous	X Growth Inducing
___ Economic	X Public Services	X Traffic/Circulation	___ Incompatible Landuse
X Fire Hazard	___ Schools	X Vegetation	X Cumulative Effects
			___ Other

FUNDING (approx) Federal $ ___ State $ Unknown to date Total $ ___

PRESENT LAND USE AND ZONING: N/A

PROJECT DESCRIPTION: The purpose of the EIR is to provide public agencies, industry, and the public in general with information about the overall effects which adoption of the CoHWMP is likely to have environmentally and to enumerate ways in which potentially significant effects might be prevented or minimized. The CoHWMP establishes policies and guidelines for proper planning and management of hazardous waste on a County-wide basis.

SIGNATURE OF LEAD AGENCY REPRESENTATIVE: Tom Stallman DATE: 3/29/88

1: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g.

REVIEWING AGENCIES

____ Resources Agency	____ Caltrans District _____
____ Boating/Waterways	____ Dept. of Transportation Planning
____ Conservation	____ Aeronautics
____ Fish and Game	____ California Highway Patrol
____ Forestry	____ Housing & Community Dev't.
____ Colorado River Board	____ Statewide Health Planning
____ Dept. Water Resources	__X__ Health
____ Reclamation	____ Food & Agriculture
____ Parks and Recreation	____ Public Utilities Commission
____ Office of Historic Preservation	____ Public Works
____ Native American Heritage Commission	____ Corrections
____ S.F. Bay Cons. & Dev't. Commission	____ General Services
____ Coastal Commission	____ OLA
____ Energy Commission	____ Santa Monica Mountains
____ State Lands Commission	____ TRPA
____ Air Resources Board	____ OPR - OLGA
____ Solid Waste Management Board	____ OPR - Coastal
____ SWRCB: Sacramento	____ Bureau of Land Management
____ RWQCB: Region # _____	____ Forest Service
____ Water Rights	____ Other: _____
____ Water Quality	____ Other: _____

FOR SCH USE ONLY

ite Received at SCH _____	Catalog Number _____
ite Review Starts _____	Applicant _____
te to Agencies _____	Consultant _____
te to SCH _____	Contact _____ Phone _____
earance Date _____	Address _____

otes: _____

ATTACHMENT IV

LETTER DATED APRIL 1, 1988 TO STATE OFFICE OF PLANNING AND RESEARCH REGARDING NOTICE OF COMPLETION OF DRAFT EIR.

C U TY OF LOS ANGI E
DEPARTMENT OF PUBLIC WORKS
900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

IOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

April 1, 1988

IN REFLY PLEASE REFER TO FILE. WM-2

Mr. David C. Nunenkamp, Chief
Office of Permit Assistance
State of California
Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

Dear Mr. Nunenkamp:

OFFICIAL REVIEW OF THE MARCH 1988 ENVIRONMENTAL IMPACT REPORT (SCH #87122312) FOR THE LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

Enclosed please find the Notice of Completion of the March 1988 Draft Environmental Impact Report (EIR) for the Los Angeles County Hazardous Waste Management Plan (CoHWMP).

Pursuant to your letter of March 17, 1988, to Mr. Norman Murdoch, Director of the Los Angeles County Department of Regional Planning, this office has submitted 15 copies of the Draft EIR to the State Clearinghouse on March 31, 1988.

The Draft EIR was prepared by the Los Angeles County Department of Public Works and is being submitted to State agencies through the State Clearinghouse for a 45-day review and comment period pursuant to the provisions of the California Environmental Quality Act.

Should you have any questions regarding this matter, please contact the undersigned at (818) 458-3561.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

M. Michael Mohajer
Supervising Civil Engineer III
Waste Management Division

MMM:kt/NUNEN

Enc.

NOTICE OF COMPLETION

COUNTY OF LOS ANGELES, CALIFORNIA

TO: Office of Planning and Research
1400 Tenth Street
Room 121
Sacramento, CA 95814

FROM: County of Los Angeles
Department of Public Works
900 S. Fremont Avenue
Alhambra, CA 91802-1460

PROJECT TITLE SCH#: 87122312
Draft EIR County Hazardous Waste Management Plan (CoHWMP)

Project Location - Specific
The entire County, including all incorporated and unincorporated areas

Project Location - County Area
The entire County

Project Location - County
Los Angeles County

Description of Nature, Purpose, and Beneficiaries of Project The purpose of the EIR is to provide public agencies, industry, and the public in general with information about the overall effects which adoption of the CoHWMP is likely to have environmentally, and to enumerate ways in which potentially significant effects might be prevented or minimized. The CoHWMP is a discretionary project to establish policies and guidelines for proper planning and management of hazardous waste on a County-wide basis. Preparation of the Plan is required under provisions of the California Government Code, Section 66780.8, and the California Health and Safety Code, Article 3.5, Chap. 6.5, Div., 20 (Chapter 1504 of the 1986 State Statutes).

Lead Agency	County of Los Angeles Department of Public Works	Division Waste Management

Address Where Copy of EIR is Available * County of Los Angeles
Department of Public Works
Waste Management Division
900 South Fremont Avenue
Alhambra, CA 91802-1460

Review Period
Forty-Five (45) Days: March 28 - May 16, 1988

Contact Person	Area Code	Phone	Extension
Michael Mohajer or Al Hearne	818 818	458-3561 458-3563	-- --

* A copy of the Draft EIr is also made available for review at all City and County libraries and all 85 City Halls in the County.

ATTACHMENT V

SCHEDULE OF PUBLIC HEARINGS FOR DRAFT COHWMP AND EIR.

SCHEDULE OF PUBLIC HEARINGS FOR DRAFT COHWMP & EIR

DATE	PLACE
March 30, 1988	Burbank City Council Chambers 275 East Olive Avenue Burbank
March 31, 1988	Veterans Memorial Auditorium Garden Room 4117 Overland Avenue Culver City
April 4, 1988	Banning Recreation Center 1330 Eubank Street Wilmington
April 5, 1988	West Covina Senior Citizen Center 2501 East Cortez West Covina
April 6, 1988	Santa Fe Springs Neighborhood Center 9255 Pioneer Boulevard Santa Fe Springs
Apirl 7, 1988	El Camino Real High School Multi-Purpose Room 5440 Valley Circle Boulevard Woodland Hills
April 13, 1988	Stanley Kleiner Park 43011 North 10th Street Lancaster
April 20, 1988	College of the Canyons Lecture Hall 26455 North Rockwell
April 21, 1988	South Gate Park Auditorium 4900 Southern Avenue South Gate

ATTACHMENT VI

OFFICIAL NOICES AND PROOF OF PUBLICATION OF PUBLIC HEARINGS FOR COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND EIR.

PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

Daily News

a newspaper of general circulation, printed and published 7 times weekly in the Cities of Los Angeles, Burbank & San Fernando, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 26, 1983, Case Number Adjudication #C349217; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit: .....

March 24

.....

all in the year 19 88

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Woodland Hills,

California, this 24th day of March, 19 88

.....
Signature

(Daily News—G-114995-03)

OFFICIAL NOTICE
PUBLIC HEARINGS for LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT REPORT

The Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared by the Los Angeles County Department of Public Works under the auspices of the County Hazardous Waste Management Advisory Committee pursuant to requirements of Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner).

An Environmental Impact Report (EIR) has also been prepared for the Plan with the California Environmental Quality Act.

The public is invited to present written or oral testimony on the Draft Plan and its accompanying Draft EIR during any of the hearing dates listed below.

DATE	TIME	PLACE
March 30, 1988	7:00 p.m.	Burbank City Council Chambers 275 East Olive Avenue, Burbank
March 31, 1988	7:00 p.m.	Veterans Memorial Auditorium Garden Room 4117 Overland Ave., Culver City
April 4, 1988	7:00 p.m.	Banning Recreation Center 1330 Eubank Street, Wilmington
April 5, 1988	7:00 p.m.	West Covina Senior Citizen Center 2501 East Cortez, West Covina
April 6, 1988	7:00 p.m.	Santa Fe Springs Neighborhood Ctr. 9255 Pioneer Boulevard, Santa Fe Springs
April 7, 1988	7:00 p.m.	El Camino Real High School Multi-Purpose Room 5440 Valley Circle Blvd. Woodland Hills
April 13, 1988	7:00 p.m.	Stanley Kleiner Park 43011 North 10th Street, Lancaster
April 20, 1988	7:00 p.m.	College of the Canyons Lecture Hall 26455 N. Rockwell Canyon Road Santa Clarita
April 21, 1988	7:00 p.m.	South Gate Park Auditorium 4900 Southern Avenue, South Gate

TESTIMONY TO BEGIN PROMPTLY AT 7:30 p.m.

Copies of the Draft County Hazardous Waste Management Plan are available for public review at all City Halls, Cities and County libraries, Board of Supervisors and the County Department of Public Works, Waste Management Division, 900 South Fremont Avenue, Alhambra, California. Copies of the Draft EIR will be available at the above listed locations after March 28, 1988.

Persons unable to attend the public hearings who wish to make written comments on the reports may do so by addressing their comments to:

M. Michael Mohajer
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Written comments on the Co HWMP and EIR will be accepted through April 21, and May 15, 1988 respectively.

Publish March 17, 24, 1988.

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of the Glendale News-Press, a newspaper of general circulation, printed and published daily in the City of Glendale, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of Jun. 21, 1927. Case Number 221017; that the notice, of which the annexed is a printed copy (set in type no smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

March 19, 26,

all in the year 19 88

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Glendale, California,

this 26 day of March 19 88

Signature

This space is for the County Clerk's Filing Stamp

OFFICIAL NOTICE
PUBLIC HEARINGS for LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT REPORT

The Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared by the Los Angeles County Department of Public Works under the auspices of the County Hazardous Waste Management Advisory Committee pursuant to requirements of Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner).

An Environmental Impact Report (EIR) has also been prepared for the Plan with the California Environmental Quality Act.

The public is invited to present written or oral testimony on the Draft Plan and its accompanying Draft EIR during any of the hearing dates listed below.

DATE	TIME	PLACE
March 30, 1988	7:00 p.m.	Burbank City Council Chambers 275 East Olive Avenue, Burbank
March 31, 1988	7:00 p.m.	Veterans Memorial Auditorium Garden Room 4117 Overland Ave Culver City
April 4, 1988	7:00 p.m.	Banning Recreation Center 1330 Eubank Street, Wilmington
April 5, 1988	7:00 p.m.	West Covina Senior Citizen Center 2501 East Cortez, West Covina
April 6, 1988	7:00 p.m.	Santa Fe Springs Neighborhood Ctr 9255 Pioneer Boulevard, Santa Fe Springs
April 7, 1988	7:00 p.m.	El Camino Real High School Multi-Purpose Room 5440 Valley Circle Blvd, Woodland Hills
April 13, 1988	7:00 p.m.	Stanley Kleiner Park 43011 North 10th Street, Lancaster
April 20, 1988	7:00 p.m.	College of the Canyons Lecture Hall 26455 N.Rockwell Canyon Road, Santa Clarita
April 21, 1988	7:00 p.m.	South Gate Park Auditorium 4900 Southern Avenue, South Gate

TESTIMONY TO BEGIN PROMPTLY AT 7:30 p.m.

Copies of the Draft County Hazardous Waste Management Plan are available for public review at all City Halls, Cities and County libraries, Board fo Supervisors and at the County Department of Public Works, Waste Management Division, 900 South Fremont Avenue, Alhambra, California. Copies of the Draft EIR will be available at the above listed locations after March 28, 1988.

Persons unable to attend the public hearings who wish to make written comments on the reports may do so by addressing their comments to:

M. Michael Mohajer
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Written comments on the Co HWMP and EIR will be accepted through April 21, and May 15, 1988 respectively.

BL CNSB G114985-03 MARCH 19, 26, 1988 BURBANK LEADER

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

.....ANTELOPE VALLEY PRESS.....

.....

a newspaper of general circulation, printed

and published TUES.,WED.,THURS.,FRI.,SAT.

in the City of .....PALMDALE.....
County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of

California, under the date of.....5-2....., 19 56,

Case Number .....657770.....; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

.....MARCH 18,25,.....

all in the year 19.....88.....

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at.....LOS ANGELES.....

California, this.....14TH.....day of.....APRIL....., 19.....88.....

.....Bonnie A. Thompson.....
Signature

This space is for the County Clerk's Filing Stamp

OFFICIAL NOTICE
PUBLIC HEARINGS for LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT REPORT

The Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared by the Los Angeles County Department of Public Works under the auspices of the County Hazardous Waste Management Advisory Committee pursuant to requirements of Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner).

An Environmental Impact Report (EIR) has also been prepared for the Plan with the California Environmental Quality Act.

The public is invited to present written or oral testimony on the Draft Plan and its accompanying Draft EIR during any of the hearing dates listed below.

DATE	TIME	PLACE
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April 20, 1988	7:00 p.m.	College of the Canyons Lecture Hall 26455 N.Rockwell Canyon Road, Santa Clarita
April 21, 1988	7:00 p.m.	South Gate Park Auditorium 4900 Southern Avenue, South Gate

TESTIMONY TO BEGIN PROMPTLY AT 7:30 p.m.

Copies of the Draft County Hazardous Waste Management Plan are available for public review at all City Halls, Cities and County libraries, Board fo Supervisors and at the County Department of Public Works, Waste Management Division, 900 South Fremont Avenue, Alhambra, California. Copies of the Draft EIR will be available at the above listed locations after March 28, 1988.

Persons unable to attend the public hearings who wish to make written comments on the reports may do so by addressing their comments to:

M. Michael Mohajer
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Written comments will be accepted through April 21, 1988

G114997 Antelope Valley Press, March 18, 25, 1988

AVI-5

PROOF OF PUBLICATION

(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

SOUTH GATE PRESS

a newspaper of general circulation, printed and published WEEKLY in the City of SOUTH GATE County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of 4-19, 19 29, Case Number 273 415; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

Mar. 24, 31,

all in the year 19 88

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at SOUTH GATE

California, this 31st day of Mar, 19 88

Signature

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Legal Advertising Clearing House
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Los Angeles, CA 90053 Telephone 625-2541
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OFFICIAL NOTICE
PUBLIC HEARINGS for LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT REPORT

The Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared by the Los Angeles County Department of Public Works under the auspices of the County Hazardous Waste Management Advisory Committee pursuant to requirements of Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner).

An Environmental Impact Report (EIR) has also been prepared for the Plan with the California Environmental Quality Act.

The public is invited to present written or oral testimony on the Draft Plan and its accompanying Draft EIR during any of the hearing dates listed below.

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April 13, 1988	7:00 p.m.	Stanley Kleiner Park 43011 North 10th Street, Lancaster
April 20, 1988	7:00 p.m.	College of the Canyons Lecture Hall 26455 N.Rockwell Canyon Road, Santa Clarita
April 21, 1988	7:00 p.m.	South Gate Park Auditorium 4900 Southern Avenue, South Gate

TESTIMONY TO BEGIN PROMPTLY AT 7:30 p.m.

Copies of the Draft County Hazardous Waste Management Plan are available for public review at all City Halls, Cities and County libraries, Board fo Supervisors and at the County Department of Public Works, Waste Management Division, 900 South Fremont Avenue, Alhambra, California. Copies of the Draft EIR will be available at the above listed locations after March 28, 1988.

Persons unable to attend the public hearings who wish to make written comments on the reports may do so by addressing their comments to:

M. Michael Mohajer
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Written comments on the Co HWMP and EIR will be accepted through April 21, and May 15, 1988 respectively.

Publish: South Gate Press Mar. 24, 31, 1988. No. 3238. G-115000-04

PROOF OF PUBLICATION

Los Angeles Times

STATE OF CALIFORNIA
County of Los Angeles

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the notice published. I am the CHIEF LEGAL ADVERTISING CLERK of the Publisher of the LOS ANGELES TIMES, a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles, and the LOS ANGELES TIMES has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 21, 1952, Case Number 598, 599; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

March 16th & 23rd

all in the year 19 88

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this

23rd *day of* March, *19*88

Signature

CALIFORNIA NEWSPAPER SERVICE BUREAU, INC.

Legal Advertising Newspaper Representatives

Main Offices: 120 West Second Street
P.O. Box 31
Los Angeles, Calif. 90053

Other offices in Sacramento, San Francisco, San Diego and Santa Ana

OFFICIAL NOTICE
PUBLIC HEARINGS for LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT REPORT

The Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared by the Los Angeles County Department of Public Works under the auspices of the County Hazardous Waste Management Advisory Committee pursuant to requirements of Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner).

An Environmental Impact Report (EIR) has also been prepared for the Plan with the California Environmental Quality Act.

The public is invited to present written or oral testimony on the Draft Plan and its accompanying Draft EIR during any of the hearing dates listed below.

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April 21, 1988	7:00 p.m.	South Gate Park Auditorium 4900 Southern Avenue, South Gate

TESTIMONY TO BEGIN PROMPTLY AT 7:30 p.m.

Copies of the Draft County Hazardous Waste Management Plan are available for public review at all City Halls, Cities and County libraries, Board fo Supervisors and at the County Department of Public Works, Waste Management Division, 900 South Fremont Avenue, Alhambra, California. Copies of the Draft EIR will be available at the above listed locations after March 28, 1988.

Persons unable to attend the public hearings who wish to make written comments on the reports may do so by addressing their comments to:

M. Michael Mohajer
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Written comments will be accepted through April 21, 1988

PROOF OF PUBLICATION

(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

.....

CULVER CITY STAR NEWS

.....

a newspaper of general circulation, printed and published WEEKLY .....

in the City of CULVER CITY .....

County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of Dec. 24 19 31,

Case Number 331869; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

..MARCH..17..and..MARCH..24.....

all in the year 19.88.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at SANTA MONICA .....

California, this 25th day of MARCH, 19 88.

P.A. Paris

.....

Signature

Free copies of this blank form may be secured from:

CALIFORNIA NEWSPAPER SERVICE BUREAU, INC.

Legal Advertising Clearing House

P.O. Box 31

Los Angeles, CA 90053 Telephone 625-2541

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AVI-8

OFFICIAL NOTICE
PUBLIC HEARINGS for LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT REPORT

The Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared by the Los Angeles County Department of Public Works under the auspices of the County Hazardous Waste Management Advisory Committee pursuant to requirements of Chapter 1504 of the 1986 State Statutes (AB 2948, Tanner).

An Environemntal Impact Report (EIR) has also been prepared for the Plan with the California Environmental Quality Act.)

The public is invited to present written or oral testimony on the Draft Plan and its accompanying Draft EIR during any of the hearing dates listed below.

DATE	TIME	PLACE
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April 5, 1988	7:00 p.m.	West Covina Senior Citizen Center 2501 East Cortez, West Covina
April 6, 1988	7:00 p.m.	Santa Fe Springs Neighborhood Ctr. 9255 Pioneer Boulevard, Santa Fe Springs
April 7, 1988	7:00 p.m.	El Camino Real High School Multi-Purpose Room 5440 Valley Circle Blvd. Woodland Hills
April 13, 1988	7:00 p.m.	Stanley Kleiner Park 43011 North 10th Street, Lancaster
April 20, 1988	7:00 p.m.	College of the Canyons Lecture Hall 26455 N. Rockwell Canyon Road Santa Clarita
April 21, 1988	7:00 p.m.	South Gate Park Auditorium 4900 Southern Ave., South Gate

TESTIMONY TO BEGIN PROMPTLY AT 7:30 P.M.

Copies of the Draft County Hazarous Waste Management Plan are available for public view at all City Halls, Cities and County libraries, Board of Supervisors and at the County Department of Public Works, Waste Management Division, 900 South Fremont Avenue, Alhambra, California. Copies of the Draft EIR will be available at the above listed locations after March 28, 1988.

Persons unable to attend the public hearings who wish to make written comments on the reports may do so by addressing their comments to:

M. Michael Mohajer
Los Angeles County Department of Public Works
Waste Management Division
P.O. Box 1460
Alhambra, CA 91802-1460

Written comments on the Co HWMP and EIR will be accepted through April 21, and May 15, 1988 respectivley

G-114987-03 CULVER CITY INDEPENDENT MARCH 17, & MARCH 24, 1988

PROOF OF PUBLICATION

(2015.5 C.C.P.)

This space is for the County Clerk's Filing Stamp

STATE OF CALIFORNIA,

County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the CARSON STAR AND HARBOR MAIL AND WILMINGTON PRESS-JOURNAL a newspaper of general circulation, printed and published Weekly in the City of Wilmington County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of Sept. 5th, 19 62 Case Number 601561; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

March 16, 23

all in the year 19 88.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Torrance

California, this 23 day of March 19 88

Kaelyn Morgan

Signature

The Daily Breeze

5215 TORRANCE BLVD. • TORRANCE, CALIFORNIA 90509
(213) 540-5511, 772-6281

AVI-9

OFFICIAL NOTICE

G114988

PUBLIC HEARINGS for LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT REPORT

The Draft Los Angeles County Hazardous Waste Management Plan (CoHWMP) has been prepared by the Los Angeles County department of Public Works under the auspices of the County Hazardous Waste Management Advisory Committee pursuant to requirements of Chapter 1504 of the 1986 State Stautes (AB 2948, Tanner).

An Environmental Impact Report (EIR) has also been prepared for the Plan with the California Environmental Quality Act.

The public is invited to present written or oral testimony on the Draft Plan and its accompanying Draft EIR during any of the hearing dates listed below.

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April 21, 1988	7:00 p.m.	South Gate Park Auditorium 4900 Southern Avenue, South Gate

TESTIMONY TO BEGIN PROMPTLY AT 7:30 P.M.

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Persons unable to attend the public hearings who wish to make written comments on the reports may do so by addressing their comments to:

M. Michael Mohajer
Los Angeles County Department of Public Works
Waste Management Divison
P.O. Box 1460
Alhambra, CA 91802-1460

Written Comments on the Co HWMP and EIR will be accepted through April 21, and May 15, 1988 respectively.

Pub.: March 16, 23, 1988

(2015.5 C.C.P

STATE OF CALIFORNIA,
County of Los Angeles,

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of the

NEWHALL SIGNAL

a newspaper of general circulation, printed and published SUN., WED., FRI.

in the City of VALENCIA

County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of AUG. 7, 1945,

Case Number 503852; that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

3/18 3/25

all in the year 1988.

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at VALENCIA, CALIF.

California, this 25 day of MAR., 1988

Signature

Proof of Publication of

G 111999-03

OFFICIAL NOTICE
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California Newspaper Service Bureau, Inc.
Incorporated 1934
120 West Second Street
Los Angeles, California 90012
(213) 625-2541

DECLARATION

I am a resident of Los Angeles County, over the age of eighteen years and not a party to or interested in the matter noticed.

The notice, of which the annexed is a printed copy appeared in the:

Daily News (Whittier)

on the following dates:

March 17, 24

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this 20th day of June, 1988.

Signature

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Waste Management Division
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Alhambra, CA 91802-1460

Written comments will be accepted through April 21, 1988

G114992
Whittier Daily News March 17, 1988

AFFIDAVIT OF ADVERTISING

TO: CALIFORNIA NEWSPAPER SERVICE BUREAU
(Agency)

This is to certify that advertising for

HAZARDOUS WASTE PLAN - G 114990 and G 114992
(Client)

was published on March 24, 1988.
(Date of Publication)

SAN GABRIEL VALLEY TRIBUNE/WHITTIER
(Name)

WEST COVINA, CA 91790
(City and State)

Bill Parker mf
(Deponent)

Erla M. Smith 3/24/88

OFFICIAL SEAL
ERLA M. SMITH

OFFICIAL NOTICE
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G114990
San Gabriel Valley Tribune March 24, 1988

ATTACHMENT VII

LETTER DATED MAY 3, 1988 FROM STATE DEPARTMENT OF HEALTH SERVICES WITH COMMENTS ON REVIEW OF DRAFT LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN.

STATE DEPARTMENT OF HEALTH SERVICES
COMMENTS ON THE DRAFT LOS ANGELES COUNTY HAZARDOUS WASTE MANAGEMENT PLAN

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
714 744 P STREET
SACRAMENTO, CA 95814

May 3, 1988

T. A. Tidemanson, Director
Department of Public Works
Los Angeles County
900 S. Freemont Avenue
P.O. Box 1460
Alhambra, CA 91802-1460

Dear Mr. Tidemanson:

The Department has reviewed the Los Angeles County draft Hazardous Waste Management Plan for consistency with the Guidelines for the Preparation of Hazardous Waste Management Plans (June 30, 1987). These Guidelines contain: 1) minimum content requirements which must be included in the Plan, and 2) criteria which the Department will use to determine if a final Plan has substantially complied with the Guidelines. We appreciate the effort Los Angeles County made to submit the draft Plan to the Department.

Our review of the draft Plan indicates that several sections of importance must be revised before the Department can approve the final Los Angeles County Plan. The areas of concern are summarized below. Specific comments on areas found to be inconsistent with the Guidelines are detailed in the enclosure. Of significant importance are the following areas:

General Comments

* The methodology used to identify the General Areas as described in the Plan did not enable the Department to make a determination that the General Areas meet the County's siting criteria. The final Plan must provide a more detailed explanation of the County's methodology and maps which demonstrate that general areas have been identified in the County which meet criteria for residuals repositories and treatment and storage facilities.

* The Plan failed to discuss current or future Waste Minimization Programs in the County. This information must be included in the final Plan.

* The data analyses from which the County determined its need for hazardous waste treatment, storage and disposal facilities does not follow the structure of the Guidelines and consequently is inconclusive. As a result, the Department is requiring the County to follow the Guideline

format for all data analyses used by the County for data information which will be included in the final Plan.

Our more detailed comments on the Los Angeles County Plan are included in the enclosure. If you should have any questions regarding this matter, please contact the Department's regional staff in your area.

Sincerely,

Alex R. Cunningham
Chief Deputy Director

Enclosures 36

cc: Ted Rauh, Chief
Southern California Section
Toxic Substances Control Division
107 S. Broadway, Room 7011
Los Angeles, CA 90012

Florence Pearson
Southern California Section
Toxic Substances Control Division
107 S. Broadway, Room 7011
Los Angeles, CA 90012

SPECIFIC COMMENTS TO
THE LOS ANGELES COUNTY
DRAFT HAZARDOUS WASTE MANAGEMENT PLAN

3.1 INTRODUCTION (The Plan; Chapter 1; Introduction)

This section appears to contain the necessary language of the Guidelines. The data provided in Section E of the Introduction should be adjusted to reflect the Department's comments on data given in Attachment A.

3.2 PURPOSE (The Plan; Chapter 1; Introduction)

The Plan should contain a specific section entitled "Purpose".

An important purpose statement which must be included in the Plan is the directive of AB 2948 "...to develop siting capacity appropriate to meet single and multi-county hazardous waste management capacity needs while also acknowledging responsibility to meet a portion of overall statewide capacity needs". Inclusion of this statement would allow the Plan to be consistent with the intent of AB 2948 and demonstrate that the local Plan was developed to meet "statewide", as well as local and regional, hazardous waste management needs.

3.3 GOALS AND OBJECTIVES (The Plan; Section 1; Introduction)

The Introduction section states that the aim of the Plan is to achieve a "County-wide" hazardous waste management system. This should be modified to read as a goal statement, and to include the statement that the goal of the Plan is to "...protect public health, safety, and welfare and maintain the economic viability of the planning area and the State". Such a change should also be included in other sections of the Plan as appropriate.

Chapter 5 of the Technical Supplement (page 5-1) states that it is the intent of the Plan that the county will be responsible for the management of its own wastes, although acknowledging the need to cooperate with other counties in dealing with the total hazardous waste management needs of the "region". This should be modified to express the comments provided above.

Also, Page 5-21 of the Technical Supplement states that the county would consider entering into a cooperative agreement

with neighboring counties to "accept their waste (or vice versa), with some form of compensation, as part of a plan to deal with the waste management issues of the entire region". The Plan should acknowledge that such agreements between governmental jurisdictions are not binding or enforceable upon private industry operations and the movement of wastes between jurisdictional boundaries.

Page 5 of the Introduction gives a list of Needs and Policies which represent the framework in developing the Plan. One such policy (5 c.) states that the County will "Ensure the placement of treatment facilities near generators". This policy could limit siting of needed facilities. While it may be desirable that a facility be located near the producers of most of the waste it receives, it may not be feasible to achieve or ensure such proximity to producers. Facility siting should be conceptually accommodated in the Plan areas of the County which meet State approved siting criteria and hazardous waste facility permitting requirements.

The timetable should be modified to include any changes recommended in this comment letter.

3.4 SUMMARY OF TOPICS AND RECOMMENDATIONS (The Plan; Section IV; Goals and Recommendations)

The second sentence in Recommendation 20 should be deleted (see comments in Section 3.3 above).

The recommendations given for Transportation must be changed to reflect the Department's comments on the transportation criteria. The text must be changed to reflect the comments provided by the Department.

3.5.1 CURRENT WASTE GENERATION (Technical Supplement- Chapter 2: Hazardous Waste Quantities, Types and Sources/ Appendix 2A)

- The Plan does not discuss current or future County waste minimization programs. If the County has such a program, the Plan must provide information on the agencies that are administering the program. Information on the accomplishments of the program and any problems that have been encountered should also be included.

- If the County does not have a waste minimization program currently in operation, the Plan should explain barriers encountered which have prevented implementation of such a program (e.g. funding, etc.).

- If the County proposes to develop a waste minimization program, the Plan should clearly state so and include a discussion on the agencies responsible for implementation; a proposed budget; and a detailed workplan and implementation schedule. A telephone number for industry assistance should also be provided.

- On page 7-1, the Plan incorrectly states that the State Department of Health Services interprets "waste reduction" in accordance with the EPA definition. EPA's definition, unlike that of the Department, excludes onsite treatment. This fact should be clearly stated in the final Plan.

- Explain the basis behind the assumption that there will be a two percent reduction every year from 1987 through 1990; a six percent reduction from 1991 through 1995; a four percent reduction from 1996 through 2000; etc. Explain how these factors will be applied. For example, explain whether these factors will be applied across all waste groups or if these represent averages of different factors applied to various waste groups and industries.

- Page 7-6 incorrectly states that source reduction includes treatment. Source reduction relates to practices and techniques that reduce, avoid, or eliminate the generation of hazardous wastes. Treatment is a process that is performed after the waste is generated.

- Explain why the County is using the hierarchy of 1) source reduction; 2) recycling or treatment onsite; and 3) recycling offsite instead of 1) source reduction; 2) recycling onsite and offsite; and 3) onsite treatment.

- On page 7-21, it should be noted that a new edition of the document entitled Alternative Technology For Recycling and Treatment is available from the Department. The publication date of this new edition is July 1986.

- The map provided on page 2-2 of the Technical Supplement should be included in the Appendix folder along with other maps of similar size and legends; current map is unclear.

- The discussion entitled "Los Angeles County Department of Public Works Hazardous Waste Generators Survey" should be included in the section entitled "General" for consistency.

- Section A. 1 of this Chapter discusses the LA County Siting Project. This discussion appears out of context with the discussion in this chapter. It should be moved to the siting criteria chapter.

- A discussion which includes background and information on the conclusions of the LA County Siting Project would be

extremely useful and should be included in the Plan. The Plan must include general areas that may meet siting criteria for residuals repositories. The Plan must clearly state that residuals repositories have not been eliminated from consideration in Los Angeles County and that further efforts will be made to find appropriate locations for these facilities.

3.5.4 TSDF NEEDS ANALYSIS (Chapter 3, Hazardous Waste Management Facilities)

- The listings of hazardous waste haulers and treatment, storage and disposal facilities given in Chapter 3 are not accurate. A number of these facilities have stopped taking hazardous wastes. This information must be corrected. The Department will assist the County in developing accurate listings of current hazardous waste haulers and treatment, storage and disposal facilities.

CHAPTER 4 OVERVIEW OF TECHNOLOGY

- The information in this chapter is well written and is useful. The information in Appendix 4B on incineration is based on a study from May, 1984. The Plan should indicate that more current information on incineration may change some of the conclusions reached in the study.

3.5.7 SITING OF HAZARDOUS WASTE MANAGEMENT FACILITIES (Technical Supplement; Chapter 5, Section IV)

- This section does not describe the methodology used to develop the map of general areas; this must be included in the final Plan.

- This section should be moved into Chapter 6, since it relates to the siting criteria. It is recommended that it be moved and numbered as "III"; the existing section III entitled "Permitting" should be renumbered as IV.

3.5.7.1 INTENT (Technical Supplement- Chapter 6; Siting Criteria and Permitting Process/ Appendix; Chapter 6A, Section I)

Technical Supplement- Chapter 6

The Introduction section (page 6-1), while acknowledging the need for the county to develop siting criteria for all hazardous waste management facilities, should state that the Plan was developed to be consistent with the Guidelines and to establish goals, objectives and policies which address a

wide range of types and sizes of facilities (page 3-2, Guidelines).

- The Plan states (page 6-2) that the siting criteria would be applicable to all types of facilities except surface impoundments and deepwell injection systems. While the reference to State law prohibiting these facilities from being located within a 1/2 mile radius of a potential supply of drinking water is correct, the law does not preclude the siting of such facilities outside the 1/2 mile distance. The law allows injection wells to be located outside the 1/2 mile distance and surface impoundments that are "...equipped and monitored with systems such as double lined walls or leachate collection". As such, the Plan cannot arbitrarily exclude these facilities from the siting criteria and applicable general areas.

  Further, the Plan makes the statement that surface impoundments and injection wells would be stringently regulated in the future and, therefore, "...are no longer seen as practical methods for hazardous waste disposal". Such a determination of practicability is unsubstantiated and more appropriately assessed by the project proponent.

Appendix; Chapter 6A, Section I

The County failed to provide definitions or references for the terms that are used in Chapter 6A. The Department's review of the siting criteria is based on the assumption that the definitions used are in accordance with state and federal regulations. Definitions and references must be provided and must be in accordance with all state and federal regulations.

SPECIFIC COMMENTS CONCERNING THE SITING CRITERIA:

Distance From Residences -

- This criterion is consistent with the Guidelines. However, the discussion under "Mitigation" should be modified to state that additional setbacks or buffer requirements imposed by the local jurisdiction cannot be more restrictive than those required of industrial operations that may have similar impacts. This would prevent overly restrictive requirements being imposed upon an applicant before the local land use decision is made.

Proximity to Immobile Populations -

- This criterion is consistent with the Guidelines; no changes are required.

Capability of Emergency Services -

- This criterion is one which may restrict the ability of an operator to locate in undeveloped lands of the county. This is more suitable as a permit requirement than a siting criterion and must be removed. A risk assessment will determine the extent of emergency services requirements.

Flood Hazard Areas/Floodplans -

- This criterion is consistent with the Guidelines; no changes are required.

Areas Subject To Tsunamis, Seiches, and Storm Surges -

- This criterion is consistent with the Guidelines; no changes are required.

Proximity To Active Or Potentially Active Faults/Seismic -

- This criterion is consistent with the Guidelines; no changes are required.

Slope Stability (Unstable Soils) -

- This criterion is consistent with the Guidelines; no changes are required.

Subsidence/Liquifaction -

- This criterion is consistent with the Guidelines; no changes are required.

Aqueducts and Reservoirs -

- This criterion is consistent with the Guidelines; no changes are required.

- The discussion under "Mitigation" should be modified to state that additional facility design feature requirements imposed by the local jurisdiction should not be more stringent than those required of other industrial operations (see comments in "Distance From Residences").

- Discharge Of Treated Effluent -

  Discharge requirements are determined at the site specific assessment level. This criterion should be deleted and possibly included within the text of the Plan.

  Proximity To Supply Wells and Well Fields -

- This criterion is consistent with the Guidelines; no changes are required.

  Depth To Groundwater -

- Depth to groundwater requirements for repositories are determined at the site specific assessment stage. This criterion should be deleted.

  Groundwater Monitoring Reliability -

- Monitoring requirements for repositories are determined at the site specific assessment stage. This criterion should be deleted.

  Major Aquifer Recharge Areas -

- This criterion is consistent with the Guidelines; no changes required.

  Permeability Of Surficial Materials -

- Permeability requirements for repositories are determined at the site specific assessment stage. This criterion should be deleted.

  Existing Groundwater Quality -

- Groundwater quality requirements are determined at the site specific assessment stage. This criterion should be deleted.

  PSD Areas -

- This criterion is consistent with the Guidelines; no changes are required.

Nonattainment Areas -

- This criterion is consistent with the Guidelines; no changes are required.

Wetlands -

- This criterion is inconsistent with the Guidelines. The Plan allows for the siting of facilities in wetlands, subject to certain conditions, without adequate justification. In fact, the discussion section states that siting in these areas appears "unlikely". The county should provide support information justifying a relaxation of the criterion contained in the Guidelines. Without such justification, the criterion should be revised to reflect that contained in the Guidelines.

Proximity To Habitats Of Threatened and Endangered Species -

- This criterion is inconsistent with the Guidelines. The Plan allows for the siting of facilities in habitats of threatened and endangered species, "...provided that it can be demonstrated that the habitat will not be disturbed and the survival of the species will be assured". This should be modified to state that such demonstration be determined at the site specific assessment conducted during the permit and environmental review stages.

  Moreover, the county should provide justification to a relaxation of the criterion contained in the Guidelines; without such justification, the criterion should be revised to reflect that contained in the Guidelines.

Agricultural Lands -

- This criterion is inconsistent with the Guidelines and would preclude the siting of facilities in all agricultural lands when the Guidelines relate only to "PRIME AGRICULTURAL LANDS". California law allows for other uses of "PRIME AGRICULTURAL LANDS", provided that there is an overriding public service need for another use. This criterion should be modified to reflect that contained in the Guidelines.

Natural, Recreational, Cultural and Aesthetic Areas -

- The term "natural" is ambiguous and should be removed. Low-Volume Transfer and Storage Facilities are allowed in

these areas to handle hazardous wastes generated by visitors, workers or residents in these areas. This criterion should be changed to reflect the language of the Guidelines.

Proximity To Public Facilities -

- The criterion is consistent with the Guidelines; no changes are required.

Federal and State Lands -

- This criterion is consistent with the Guidelines; no changes are required.

Areas Of Potential Mineral Deposits/ Resources -

- This criterion is consistent with the Guidelines; no changes are required.

Proximity To Areas Of Waste Generation -

- While this criterion is consistent with the Guidelines, the discussion in this section needs to be modified to qualify the statement that "the shorter the transportation distance, the less likely an occurrence of an accident". This statement is not necessarily valid in all cases.

Proximity To Major Transportation Routes -

- This criterion is consistent with the Guidelines; no changes are required.

Structures and Properties Fronting Minor Routes -

- This is more suitable as a requirement at the site specific permit or environmental review stage. This criterion is inconsistent with the Guidelines and must be deleted.

GENERAL COMMENTS REGARDING SPECIFIC DISCUSSIONS ON SITING

I. Siting Criteria (page 6A-1)

- The discussion in this section is well written and follows the intent of the Guidelines.

II. Use of The Siting Criteria (page 6A-57)

- The discussion in this section is well written and follows the intent of the Guidelines. It is, however, strongly recommended that the maps of general areas be inserted in this chapter. In doing so, the Appendices would be more consistent with the revised text (Volume II; Chapter 6).

III. Characteristics Of Facilities Pertinent To Siting (page 6A-58)

- The discussion in this section is well written and follows the intent of the Guidelines. However, it is suggested that the Plan contain a discussion on deep well injection and surface impoundments and reflect the comments previously noted (Section 3.5.7.1 - Intent).

Identification of General Areas Potentially Suitable For Hazardous Waste Management Facilities (Technical Supplement; Volume II; Chapter 5, Section IV; page 5-23

- The Plan states that not all areas suitable for facilities were shown on the map of general areas (Figure 5-9; page 5-24) and that "Some locations, suggested later, may be equally suitable...and each should be evaluated on a case-by-case basis as to their suitability based on the siting criteria as developed in Chapter 6." This statement must be deleted because AB 2948 requires designation of such areas before the siting criteria can be assessed as being applicable to those areas. In addition, the Plan should state why certain areas may not have been designated and included in the map of General Areas.

  The Plan should also be modified to state that the appropriate mechanism for adding general areas would be during the Plan amendment or revision process allowed under AB 2948. In its present form, the Plan incorrectly implies that areas can be added without formal input by the cities and the public allowed through the amendment and revision processes.

- The Plan states that the Department of Public Works (DPW) requested cities and the County to identify areas within their jurisdiction which might be suitable for development of hazardous waste management facilities based on the siting criteria. The county then used the responses received to develop Figure 5-9 which identifies/designates general areas potentially suitable for the siting of hazardous waste management facilities.

This methodology, as described in the Plan, does not enable the Department to make a positive determination that the general areas meet the County's siting criteria. Therefore, the final Plan must provide a more detailed explanation of the methodology used by the County. Such an explanation must also:

-Explain what data was given to the cities and what they were required to do.

-Explain if the criteria were limited in applicability to land zoned for industrial and manufacturing uses or if special zones and other land uses were included.

-Explain how the cities applied the criteria to arrive at general areas suitable for the siting of facilities.

-Explain how many cities responded to the county's inquiry.

-Explain how the County used the information supplied by the cities to develop general area maps.

-Explain the type of follow-up procedure used if a city did not respond to the County's request.

-Provide a copy of the cover letter sent to the cities in the Appendix as a source of reference.

-Explain how the County verified the adequacy of the information supplied by the cities.

- The County must support the general area maps with this information so that the Department can make a determination that the areas shown may meet the siting criteria.

- Separate maps for residual repositories and treatment and storage facilities should be prepared. This is necessary because the siting criteria for residual repositories is more restrictive.

- The maps should include data taken from the Seismic Safety Element of the General Plan and Land Use maps. County-wide mapping should be done for the following elements:

  - 200 feet from active earthquake fault

- All open Space (BLM land, State Parks, Regional Parks, National Parks and forests, designated open space, prime agricultural land)
- Military installations
- Surrounding land use

- The following siting criteria for residual repositories should be applied county-wide.
  - 2000 feet from residence
  - Surrounding land use
  - Areas subject to rapid geologic change
  - Groundwater recharge areas
  - Areas of high groundwater (5 feet or less)
  - All open space (BLM land, State Parks, Regional Parks, National Parks and Forest, designated open space)
  - Military Installations

- The Plan should designate on maps, general areas to which the siting criteria might be applicable. Other criteria discussed in SPECIFIC COMMENTS CONCERNING THE SITING CRITERIA (pages 4-9) should not be referred to for the purpose of designating general areas.

  If the County chooses again to describe in Chapter 2 the County's past search for potential landfill sites conforming to other criteria, that description should be presented in proper context. The search culminated in attention to four sites to the extent that subsurface exploration was undertaken to determine geologic characteristics of those sites. It was determined that those sites did not meet geologic and economic criteria selected for the study. That history should be presented in a way that does not detract from the possibility that future site proponents might find sites in the county that meet the criteria presented immediately above and that could be developed as residuals repositories consistent with State and Federal standards and policy.

3.5.8 TRANSPORTATION (Technical Supplement; Chapter 8; Transportation; page 8-1/ Appendix 8B; SCHWMP Transportation Study

Technical Supplement; Chapter 8

- The Plan states that the county has developed hazardous waste routing criteria in Section VIII; is this criteria contained in Appendix 8B? If so, then reference should be as such. If not, the correct section should be identified.

- The discussion concerning the Caltrans State Transportation Improvement Program for the county should be expanded in detail since the Plan states that it may have a significant impact on routes leading to and from current and proposed facilities.

- The map showing routes used by hazardous waste haulers should highlight actual routes taken; the current map resembles a typical street map.

- The Plan did not provide an assessment of the ability of local programs to adequately manage future hazardous waste management facilities provided for in the Plan; the discussion was too broad in this respect; otherwise the discussion is consistent with Guidelines.

Technical Supplement; Chapter 6, Siting Criteria and Permitting Processes

- The discussion in this section is consistent with the Guidelines; no changes are required.

Technical Supplement; Chapter 10, Emergency Response

- The discussion in this section is consistent with the Guidelines; no changes are required.

3.5.10 ORGANIZATIONAL RESPONSIBILITIES FOR IMPLEMENTATION

- The discussion in this section is consistent with the Guidelines; no changes are required.

3.5.11 EMERGENCY RESPONSE PROCEDURES (Technical Supplement; Chapter 10, Emergency Response

- The discussion in this section is consistent with the Guidelines; no changes are required.

3.5.12 STORAGE REGULATIONS (Appendix 1A and 11D)

- The discussion on underground storage tank requirements in this section is consistent with the Guidelines.

  The discussion on aboveground storage tank requirements was not included and must be included in the final Plan.

3.5.13 CONTAMINATED SITES (Technical Supplement; Chapter 2 and Chapter 11/ Appendix 11A, 11B, 11C, and 11D)

Technical Supplement; Chapter 2; Hazardous Waste Quantities, Types and Sources

- This section is inconsistent with the Guidelines and should be expanded to include information required in the Guidelines.

Technical Supplement; Chapter 11; Inactive Hazardous Waste Sites

- This section did not discuss existing local programs which address land use restrictions on identified contaminated sites and surrounding areas; local ordinances regarding land use on and around contaminated sites; and other information required in the Guidelines.

Appendix 11A, 11B, 11C, and 11D

- These sections did not discuss existing local programs which address land use restrictions on identified contaminated sites and surrounding areas; local ordinances regarding land use on and around contaminated sites; and other information required in the Guidelines.

3.5.15 SMALL QUANTITY GENERATORS (Technical Supplement; Chapter 12, "Small Quantity Generators"/ Chapter 7, Waste Minimization/ Appendix 12A and 12B)

- These sections did not address the economic barriers which may be associated with the collection and management of hazardous wastes produced by small quantity generators, including incentives and impediments affecting implementation by industry. This should be modified to include this information.

3.5.15 HOUSEHOLD HAZARDOUS WASTES (Technical Supplement- Chapter 12/ Appendix 12C and 12D)

- The sections related to this subject area were well written and are consistent with the Guidelines. It is recommended that this section be moved to a separate chapter to provide the reader with a clear understanding of this important issue.

3.6 CHWMP IMPLEMENTATION (The Plan, Section VII)

3.6.1 PUBLIC EDUCATION AND PARTICIPATION (Chapter 9; Policy 9)

- The public involvement efforts made during Plan development should be described. This description should include information on public meeting and hearing schedules and the process that was used to inform the public of the hearings. Copies of the public notices, flyers and handouts distributed should be included. Summaries of the comments received from the public during these hearings should also be included. The activities of the Advisory Committee should be discussed. The timeline for this task shows activities to begin in the last half of 1989. Since the description of the activities entails public input during the planning process, the timeline should be moved forward to the present year.

3.6.2 ONGOING DATA COLLECTION AND ANALYSIS PROGRAM (Chapter 2; Policies 3 and 10/ Chapter 3; Policies 2, 3, 4 and 10)

- Overall, the discussion contains activities similar to those required in the Guidelines. However, this section should be structured in the same manner as the Guidelines.

3.6.3 WASTE REDUCTION IMPLEMENTATION PROGRAMS (Chapter 4; Policies 1, 4, 6, 9/ Chapter 7; Policies 1, 3, 4, 9)

- This section is consistent with the Guidelines; no changes are required.

3.6.4 SITING (Chapter 5; Policies 2, 5, 10, 11/ Chapter 6; Policies 3, 5, 9, 10)

- The Plan should contain a schedule for the Plan approval process at the county and cities level; otherwise, this section is consistent with the Guidelines.

3.6.5 TRANSPORTATION (Chapter 8; Policies 1, 3, 6, 7, 9)

- The activities associated with routing restrictions and related activities appears to impact on issues raised under the comment section entitled " 3.5.8 Transportation" above. It is recommended that any changes in the discussion in the latter section be incorporated and changed within the context of this section.

3.6.6 STORAGE

- Storage is not specifically identified in the Implementation Section of the Plan; the discussion in Appendix 1A and 11D adequately discusses underground storage activities required in the Guidelines; the Plan needs to discuss aboveground storage activities.

3.6.7 CONTAMINATED SITES (Chapter 11; Policies 1, 2, 3,9, 11)

- This section is consistent with the Guidelines; no changes are required.

3.6.8 SMALL QUANTITY GENERATORS (Chapter 12; Policies 1 - 4, 6, 9, 12)

- This section is consistent with the Guidelines. It is recommended that this section be moved to a separate chapter to provide the reader with a clear understanding of this important issue.

3.6.9 HOUSEHOLD WASTES (Chapter 12; Policies 1 -4; 6, 9, 12)

- This section is consistent with the Guidelines. It is recommended that this section be moved to a separate chapter to provide the reader with a clear understanding of this important issue.

3.6.10 EMERGENCY RESPONSE (Chapter 10; 1, 7, 8, 9, 10)

- This section is consistent with the Guidelines; no changes are required.

3.6.11 REGULATIONS, ENFORCEMENT, AND SURVEILLANCE (Chapter 1; Policies 1, 3, 8, 10)

- This section is inconsistent with the Guidelines. The Plan

must provide an assessment of the ability of local programs to adequately manage future hazardous waste management facilities provided for in the Plan.

3.6.12 ORGANIZATION AND RESPONSIBILITY

- While the Plan does not contain a section of this title, organization and responsibility discussions are found in various sections of the Plan. It is unclear from these discussions if the county has planned for local programs to adequately manage future hazardous waste management facilities provided for in the Plan. This needs to be clarified in this section and in section 3,.5.10.

3.6.13 FUNDING (Table 2)

- This section is consistent with the Guidelines; no changes are required.

3.6.14 MONITORING AND EVALUATION (The Plan; Policies 2 and 3)

- This section is consistent with the Guidelines; no changes are required.

3.7 TECHNICAL APPENDICES (Appendix; Volume III)

- The county is commended on developing a clear and concise Appendix; this Appendix is consistent with the Guidelines.

COMMENTS ON LOS ANGELES COUNTY'S DATA ANALYSIS SECTION OF THE DRAFT HAZARDOUS WASTE MANAGEMENT PLAN (CHWMP)

GENERAL COMMENTS

- The county must address the following comments in order to meet the requirements of Section 25135.1 (d) of the California Health and Safety Code. In cases where certain DHS comments cannot be fully addressed at the present time, the county must:

    a) List the comments in the final CHWMP as deficiencies;
    b) Prioritize deficiencies by the order in which their correction will strengthen the CHWMP;
    c) Outline sources of data and a brief methodology that can be followed to correct each deficiency; and
    d) Estimate the amount of staff time and resources needed to correct each deficiency.

  This discussion is required for the Department to make a final decision on the adequacy of the data analysis and will provide a basis for county staff preparing future amendments to the final CHWMP.

- The final CHWMP shall contain the following statement:

  > Waste groups used in this plan do not preclude the use of new waste groups (e.g. infectious waste) in the needs assesments of future amendments to the CHWMP. Amended CHWMPs may also be required to enhance the analysis of selected waste streams (e.g. out-of-state shipments, pretreatment sludges, etc.).

- Numerical data that are pertinent to more than one table or are referred to in the text should be consistent throughout the final CHWMP.

- Each column heading in the data tables should include the proper units (i.e. tons/year or tons).

- Portions of the text that discuss sources of data and methodologies used in the data analysis should be cited in the data tables.

- Major generators in the county should be surveyed to determine details of industrial operations that may not be accurately represented in the manifest data. This information would include, but need not be limited to, average annual generation rates, non-hazardous waste shipped to hazardous waste facilities, out-of-state hazardous waste shipments, and future trends in production and their effect on hazardous waste generation.

- While not conforming to the TRM (Technical Reference Manual of the Guidelines for the Preparation of Hazardous Waste Management Plans) format for data analysis, the tables provided in the draft CHWMP contain much useful information. The analysis does, however, lack continuity in the table to table development of the data. There is no clearly evident process that produces the projected needs assessment from the current needs assessment. Also, information that is developed in intermediate tables, such as "double counts" of wastes shipped from transfer stations, manifested wastes from site cleanups and wastes produced by small quantity generators has been omitted from the projected needs assessment. Other major inadequacies have been found in the projection methodology for future waste generation and capacity need, the analysis of wastes to be generated during the cleanup of contaminated sites, and in the lack of addressing new waste streams (additional pretreatment sludges) and estimating generation of treatment residuals for the planning period.

- The specific comments listed below are organized on a table by table basis according to the TRM format. The comments address deficiencies in the corresponding draft CHWMP table or tables (as determined by DHS) that attempt to provide equivalent information to the TRM methodology. To expedite the Department's review of the final CHWMP and to assure proper understanding of the county's methodology, the final Plan should include an index listing the subject matter of each TRM data analysis table (Tables A through Q) and the table or tables in the final CHWMP which provide equivalent information.

TABLE 2-3 (TRM TABLE A) - QUANTITIES OF HAZARDOUS WASTE SHIPPED OFF-SITE BY GENERATORS IN THE COUNTY

- List miscellaneous wastes by California Waste Category. Show the assignment of a Generalized Treatment Method to each miscellaneous waste. Enter miscellaneous waste data in terms of required treatment capacity into Table 5-2 (TRM Table B).

- Adjustments to the manifest data for route service haulers

and out-of-state shipments must be made here or in Table 5-1 (TRM Table I). Also, provide a discussion that explains how these adjustments were made and the data sources that were used. A detailed methodology for such adjustments and limited data were provided to the county in a mailing dated August 28, 1987.

- 1985 and 1986 waste generation data were mailed to the county on June 30, 1987. By comparing both years' data, the county will have a better chance to avoid misrepresenting an anomalous year's generation as typical. The county strengthens this approach by considering the waste generation data of a third year (1984), while weakening the analysis by ignoring 1985 data. Include 1985 waste generation data in the data analysis.

TABLE 5-2 (TRM TABLE B) - CURRENT COUNTY NEEDS FOR COMMERCIAL HAZARDOUS WASTE TREATMENT / DISPOSAL CAPACITY BASED ON WASTE QUANTITIES MANIFESTED FOR CALENDAR YEAR 1986

- Clarify what is meant by "maximum treatment possible" in the asterisked comment for the column "Quantity of Residuals Remaining." Also, include a comment that explains that the quantities calculated in this column:

  a) Are based on the assumption that all hazardous waste is treated prior to landfilling, which will not be the case until May 1990, at the earliest; and
  b) Estimate the residuals disposal capacity needs for only one year and <u>not</u> the size of a needed residuals repository. The repository size is determined by the cumulative residuals disposal needs, in tons, for the planning period (or greater).

- While determining capacity needs for imported wastes is not required according to the TRM data analysis methodology, including such information in this table is commendable.

- It appears that all miscellaneous wastes from Table 2-3 (TRM Table A) have been entered under the Generalized Treatment Method "Other Recycling." The validity of this assignment cannot be determined until miscellaneous wastes in Table 2-3 (TRM Table A) have been listed by California Waste Category and assigned a Generalized Treatment Method. Please be aware that if "Other Recycling" is assigned by the county to a particular waste group, while being listed in Table E-1 (p. E-9) of the TRM as an alternative treatment method for that waste group, the county must provide specific information on the recycling process (e.g., description of the process, time of availability to generators in the county, status of state and federal permits, names of

vendors that will market the process, applicability to the waste being considered, etc.)

- See comments in Table Q for a discussion of estimating residuals generation for the Generalized Treatment Method "Other Recycling."

TABLE 5-3 (TRM TABLES C AND D) - CAPACITY OF EXISTING, PLANNED AND PROPOSED WASTE MANAGEMENT FACILITIES IN LOS ANGELES COUNTY

- Overall, this table is very well designed, easy to follow and contains a great deal of valuable information. As stated for Table 5-2 (TRM Table B), including capacity need for imported wastes is not required, but provides useful information. Since "net available capacity or shortfall" is the most important information in this table, this concept should be included in the title.

- Including HHW data at this point in the data analysis is a refinement of the current needs assessment which is not required in the TRM methodology, but is perfectly acceptable.

- Table 5-3 should include a column which tabulates the quantities of hazardous waste that were treated by commercial facilities during 1986, based on the Commercial Facility Capacity Summaries that were mailed to the county on September 30, 1987. Resolve any major discrepancies between the quantities in this added column and those shown in draft CHWMP Table 2-9 (quantities of hazardous waste receiving offsite treatment in Los Angeles County, based on manifest data summaries). For example, the Commercial Facility Capacity Summary for Leach Oil shows that 8,924 tons of hazardous waste were treated by the company in 1986, while Table 2-9 shows that 2,663 tons were treated during the same year.

- The capacities of Southern California Chemical Co. for "Aqueous Treatment Metals" and "Other Recycling" are listed as 2,100 and 14,700 tons/year, respectively, in Tables 3-3 and 5-3. The Department's figures, based on the company's 1986 Facility Annual Report, are somewhat greater. Please contact Ted Bakker at (916) 324-1807 to resolve this discrepancy.

- The Commercial Facility Capacity Summary for PGP Industries shows the company's capacity as "Other Recycling" because metals are recovered from the waste stream and the remainder of the waste is shipped as hazardous. Table 5-3 lists this capacity under "Aqueous Treatment Metals/Neutralization." Rectify this discrepancy. Also, since only metals are removed and the waste is not otherwise treated, a footnote

similar to "b" should be added stating this fact and removing the company's capacity from the total available in the county (unless the county has specific informational updates that would conflict with this approach).

- Change the incineration capacity for National Solder from 38,325 tons/year to 4,563 tons/year as per the Commercial Facility Capacity Summary (unless the county has other specific updated unformation).

- Remove "Residuals Disposal" from this table. This information is misleading because it identifies an annual capacity requirement, which could easily be confused with the size of a needed residuals repository. It is strongly recommended that the county use the "residuals remaining" figures from Table 5-2 (TRM Table B) and the projected residuals generation estimate for the year 2000 from TRM Table Q to develop an estimate of residuals generation for the entire planning period (current year to the year 2000) which much more accurately reflects the county's need for residuals disposal capacity. See comments under Table Q for a suggested methodology for preparing this estimate.

TABLE 3-2 (TRM TABLE G) - OFF-SITE STORAGE CAPACITY IN LOS ANGELES COUNTY

- Most of the storage capacity identified in Table 3-2 is devoted to treatment processes occurring at the listed facilities. It is recommended that only commercial storage facilities be listed in this table or that storage capacity that is not commercially available be clearly indicated.

TRM TABLE H (NO DRAFT CHWMP EQUIVALENT) - ONSITE TREATMENT/DISPOSAL OF HAZARDOUS WASTE IN CURRENT YEAR

- Draft CHWMP Table 2-2 shows 1984 estimates of the quantity of hazardous waste managed in the county on the site of generation. This information is similar but not equivalent to the information required in TRM Tables H and J-onsite. Table H examines onsite treatment/disposal facilities in terms of their capacity for Generalized Treatment Methods (as defined by DHS) and the amount of waste treated during 1986 by each method employed. The base data for this table are the Onsite Facility Utilization and Capacity Summaries mailed to the county on November 20, 1987. The county may update this information or add data to this base for specific onsite facilities that have not been addressed by the Department. Please note that the total quantity of waste shown as being managed onsite in Table H (first column) must equal the total waste generation shown in Table J-onsite.

TABLE 5-1 (TRM TABLE I) - MULTI-YEAR PLANNING ESTIMATE OF QUANTITIES OF HAZARDOUS WASTE SHIPPED OFF-SITE BY GENERATORS IN LOS ANGELES COUNTY

- The quantities entered in the first column of Table 5-1 must indicate representative annual generation rates for the current year based on a comparison of 1985 and 1986 waste generation data. Even though yearly waste generation quantities may be similar for two different years, generation within specific waste groups may be disparate, thus affecting the capacity requirement for a particular Generalized Treatment Method. Compare 1985 and 1986 waste generation data and, at a minimum, survey major generators (to establish representative annual generation rates) that contribute to waste groups that show substantial differences in generation rates for the two years. (Including 1984 data in this comparison will strenghten the data analysis.) The best method, however, is for the county to survey all major generators in order to obtain an understanding of the types and quantities of waste that will be generated over the planning period.

- Only manifested waste quantities actually resulting from the cleanup of contaminated sites are to be listed in Table 5-1, Column 2. Discuss how the county made this determination.

- Only manifested waste quantities actually resulting from transfer operations are to be listed in Table 5-1, Column 3. Discuss how the county made this determination.

- Describe efforts made to identify non-hazardous wastes (exempt from DHS regulation) generated in the county which are, nonetheless, managed by hazardous waste facilities. To identify the industries potentially employing this practice, the Department recommends establishing the "county pool" of generators producing any of the 14 "Special Wastes" listed in Section 66740, Title 22, Code of California Regulations. Each of these generators can then be contacted to determine specific waste management practices. These data should then be tabulated and entered into Table I. If there is no shipment of non-hazardous waste to hazardous waste facilities, discuss the types of major industries located in the county, showing that this "county pool" does not exist or that specific generators in the pool do not employ this practice. Also, remove footnote "a" from Table 5-1 because it incorrectly implies that the Department is responsible for providing these data.

  Information obtained while surveying major generators, data known about hazardous wastes shipped under variances from manifesting requirements, and local knowledge of hazardous waste management practices in the county should be used to supplement these data. Additional information on this

subject may be found in the TRM (p. E-5) and in "Additional Instructions For Data Analysis" (p. 3), which was mailed to counties on October 30, 1987.

- The TRM methodology for dealing with hazardous wastes produced by small quantity generators is based on the assumption that these wastes are not manifested. Thus, the small quantity generator wastes identified in Table 5-1, Column 6 must be added to column 4 quantities. Any deviation from this methodology must be supported by data from surveys of a statistical sample of small quantity generators in the county.

- The draft CHWMP discusses Household Hazardous Wastes (HHW) that are sent to Publicly Owned Treatment Works (POTWs), providing useful information while properly not including these wastes in the offsite analysis. HHW managed offsite are properly identified in CHWMP Table 5-1, but must not be included in the "Total" column (column 8), since these quantities will be projected by a population growth factor, while the quantities in the "Total" column will be projected by industry-specific growth multipliers.

- List miscellaneous wastes by California Waste Category.

- The quantities shown in Table 5-1, Column 8 ("Total") should be the sum of columns 4, 5 and 6.

- Complete instructions for the preparation of Table I are contained in the TRM (pp. E-5, E-6) and in "Additional Instructions For Data Analysis" (pp. 2,3,4).

TRM TABLE J (NO DRAFT CHWMP EQUIVALENT) - MAJOR INDUSTRY GROUPS OF WASTE GENERATED AND SHIPPED OFFSITE

- This table must be prepared according to the instructions in the TRM (p. E-6) and in "Additional Instructions For Data Analysis" (pp. 2,3,4). Hazardous waste generated in the county must be listed by waste group according to the SIC code of the generating industry. Use representative annual generation rates as in TRM Table I. Include wastes produced by small quantity generators but not by households. In addition to providing a basis for hazardous waste projection, this table will also be useful in the design of a waste reduction program.

- Prepare separate tables for wastes treated on the site of generation and for offsite-treated wastes.

- List miscellaneous wastes in this table by California Waste Category.

- Total waste generation, as well as the generation quantities shown for each waste group, should be identical in TRM Tables I and J-offsite.

- The total waste generation shown on TRM Table J-onsite should equal total waste treated in TRM Table H.

- Data from DHS Onsite Facility Utilization and Capacity Summaries should be used as the basis for TRM Table J-onsite. The county, in Table 2-10, estimates considerably greater quantities of waste treated onsite than reported by the Department in the Onsite Summaries. As much as practicable, this information should be itemized by the generating industry and included in Tables J-onsite and Table H.

TRM TABLE K (NO CHWMP EQUIVALENT) - PROJECTED QUANTITIES OF HAZARDOUS WASTE GENERATION

- Table K must be prepared according to the instructions in the TRM (pp. E-6, E-7) and "Additional Instructions For Data Analysis" (p. 4). In Table K, the waste quantities listed under each SIC code in Table J are multiplied by the economic growth factor developed for that type of industry. Using population growth in the projection of commercially produced hazardous waste is not an acceptable approach for an industrialized county. The county must outline the methodology used in developing economic growth factors and provide a copy of each document serving as a basis for this development.

- The Department reserves the right to make a final judgement on the adequacy of the projection methodology until it has reviewed the documents upon which projections are based.

- As in Table J, prepare separate tables dealing with offsite and onsite managed wastes.

- Table 2A-3 in the draft CHWMP is inadequate for projecting industrial hazardous waste generation in that it:

    a) The table lacks sufficient detail in the classification of industries and does not assign SIC codes;
    b) The table combines population growth and employment growth to develop projection factors;
    c) The table uses weighting factors whose derivation is not explained;
    d) Units are not identified (assumed by DHS to be percent); and
    e) Projection factors incorporate waste reduction. Table K must be prepared without waste reduction

factors. However, it is acceptable to prepare a supplemental Table K which considers waste reduction and conduct parallel data analyses through Table Q using both sets of data. The county's waste reduction program, as described in the final CHWMP, must justify waste reduction factors used in the supplemental data analysis.

- Household hazardous waste quantities listed in Table 5-1 (TRM Table I), Column 7, should be multiplied by the county population growth factor as derived in Appendix 2A and entered in the "Projected HHW" column of Table K.

- Projections should be made to the year 2000. It is acceptable, however, to provide data for incremental periods within the planning period and to provide additional projections beyond the year 2000.

TRM TABLE L (NO DRAFT CHWMP EQUIVALENT) - PROJECTED QUANTITIES OF CLEANUP WASTES

- Table L or its equivalent must be prepared to provide an estimate of the quantity of cleanup wastes that will be generated in the year 2000. This table must be prepared according to the information and instructions contained in the TRM (pp. A-16 through A-18) and in "Additional Instructions For Data Analysis" (pp. 4 and 5).

- The following comments in this section (Table L) are intended to be a general guide, summarizing major points to be considered in the preparation of Table L and deficiencies noted in the information on contaminated sites in the draft CHWMP. These comments are not intended to be a substitute for the requirements contained in the references cited above.

- The annual generation rate of wastes produced by the cleanup of contaminated sites, as identified in the draft CHWMP, includes only estimates for leaking underground storage tanks. Cleanup wastes from Old Disposal Sites (Bond Expenditure Plan sites), Closed Toxic Pits and Other Cleanup Wastes, as identified by the county, should also be included.

- The basis of information for Old Disposal Sites are the Site Reporting Forms mailed by the Department on August 28, 1987. The county may include additional information known on specific sites. List all sites in a supplemental table showing all available information regarding types and quantities of contaminants present and the potential that exists for possible ground water contamination (this could be an extension of Table 11-2 in the draft CHWMP). In table

L, summarize all quantifiable information, in terms of annual generation rates, from the supplemental table. (National Priority List sites may be handled in the same way.)

- When quantifiable information exists for Old Disposal Sites, an estimate may be made as to the percentage of wastes at each site that will require offsite treatment. The basis for making such estimates must be justified. Indicate this estimate in the supplemental table and transfer only the quantities of waste requiring offsite management to Table L. (National Priority List sites may be handled in the same manner.)

- The draft CHWMP (p. 11-7) assumes that only 20% of the existing underground storage tanks (assumed by DHS to be single-walled) will produce significant soil contamination due to leakage. Provide the basis used for making this estimate. The Department's experience is that nearly all single-walled tanks currently leak or will leak prior to replacement. The estimate of 300 cubic yards of soil contamination per site appears to be reasonable, but there should be some explanation of how this figure was determined. The county may choose to devise a tiered structure (for example setting up categories of light, medium and heavy contamination) to make more refined estimates of soil contamination. As with all contaminated sites, estimate the total amount of contamination that will occur over the planning period and divide by the number of years over which cleanup will occur to calculate the estimated yearly generation rate. The final plan should use a worst case scenario that assumes that the SCAQMD will not allow the aeration of contaminated soils after 1989, but may consider other onsite treatment options.

TRM TABLE M (NO CHWMP EQUIVALENT) - PROJECTED QUANTITIES OF NEW HAZARDOUS WASTE STREAMS

- Table M or its equivalent must be prepared. This table should include <u>additional</u> quantities of pretreatment sludges that will be generated as a result of existing industries in the county coming into full compliance with their current discharge permits during the planning period. These quantities could be quite significant in heavily industrialized counties. The estimate should be obtained with the aid of the local sanitation district. For the present time, use the existing pretreatment requirements of the current Clean Water Act. Changes in the standards of the Clean Water Act should be reflected in plan updates. See the TRM (pp. A-13 through A-15) for information on the preparation of this table.

- The discussion of Pretreatment Sludges on page 2A-10 of the draft CHWMP confuses pretreatment sludges generated by industry, which are considered hazardous, with treatment sludges generated by sanitation districts which are typically managed as non-hazardous. The CHWMP does not need a detailed analysis of treatment sludges generated by POTWs and pretreatment sludges that are currently manifested. However, the generation of additional pretreatment sludges produced when industry that is currently out of compliance with pretreatment requirements comes into compliance has not been considered and needs to be estimated in a separate table. Even though data on pretreatment sludges technically represents "double counts" of hazardous waste generation, they also represent real hazardous waste whose management must be properly planned, thus overriding theoretical considerations for exclusion. Correct this discussion in the text.

- Provide data on generation of other new waste streams such as ethylene glycol, fluorescent tubes, etc. which are mentioned in Appendix 2A (p. 2A-11).

TABLE 2-10 (TRM TABLE N) CURRENT AND PROJECTED WASTE QUANTITIES FOR LOS ANGELES COUNTY

- The purpose of TRM Table N is to provide an estimate, by waste group, of projected hazardous waste generation from all sources in the county for the year 2000. This estimate will be used to determine the future commercial capacity requirement for treatment processes and residuals disposal. Table 2-10 does not provide sufficient information in that:

    a) Does not include information on New Hazardous Waste Streams (TRM Table M);
    b) Does not itemize wastes by waste group so that required treatment can be assigned;
    c) Includes wastes requiring onsite and offsite management in the same table, thus adding confusion to the requirement for commercial capacity; and
    d) Combines data from tables that require extensive revision.

  It is acceptable, however, to project waste generation for incremental periods within the planning period and beyond the year 2000.

TRM TABLE O (NO DRAFT CHWMP EQUIVALENT) - PROJECTED COMMERCIAL HAZARDOUS WASTE TREATMENT/DISPOSAL CAPACITY IN THE COUNTY

- Table 5-3 in the draft CHWMP contains nearly all of the information needed for TRM Table O. As in Table 5-3,

proposed capacity which is questionable may be identified but should not be included in the projected county totals. A column should be added for a loss of capacity due to the expected closure of any commercial facilities of which the county is aware. Include Residuals Disposal as a management method in Table O to establish the total projected county disposal capacity (in tons).

TABLE 5-6 (TRM TABLE P) LOS ANGELES COUNTY OFF-SITE HAZARDOUS WASTE MANAGEMENT CAPACITY NEEDS FOR 1990 HAZARDOUS WASTE TREATMENT FACILITIES

- Projected capacity requirements should be based on the total projected quantities of hazardous waste generation, as developed in TRM Table N. Total waste generation for the year 1990 (for offsite treated wastes) as identified in draft CHWMP Table 2-10 does not equal the capacity requirement to treat these wastes, as identified in Table 5-6. Total projected waste generation must equal total projected treatment capacity requirements.

- It is not clear how the Projected Required Capacity in Table 5-6 was derived. Multiplying the 1986 capacity requirement in Table 5-3 by the Net Growth Rate (0.01382 annual growth rate between 1987-1990) in Table 2A-3 does not yield the Projected Required Capacity in Table 5-6.

- Table 5-6 does not provide equivalent information to TRM Table P in that:

    a) Commercial capacity needs are projected only to the year 1990, while projection to the year 2000 is required;
    b) The values of the projected commercial capacity requirements in the first column are untraceable and do not correlate to projected waste generation in Table 2-10 (requiring offsite treatment); and
    c) Wastes generated from the cleanup of contaminated sites are placed into a management category of "Residuals Repository." The corrected table must project capacity requirement to the year 2000 (long after the ban on landfilling of untreated wastes will have been in place) and thus all hazardous waste generated in the county will have to be treated. Assign all hazardous waste projected to be generated in the year 2000 to one of the seven Generalized Treatment Methods (as defined by the Department), excluding Residuals Disposal. Remove the analysis of commercial needs for residuals disposal from this table (see TRM Table Q for comments on residuals projection).

- TRM Table P is intended to provide a basis by which the county can determine its projected need for hazardous waste treatment facilities. The data analysis from which Table 5-6 was derived contains a sufficient number of substantial errors to render it inconclusive. Furthermore, the analysis has no continuity where data developed in a particular table is used as a basis for the development of a subsequent table which eventually leads to the determination of the projected treatment capacity requirement (TRM Table P). Only after the data analysis is corrected per the Department's comments can any conclusions be drawn on the projected need for hazardous waste treatment facilities in Los Angeles County.

TRM TABLE Q (NO CHWMP EQUIVALENT) - PROJECTED QUANTITIES OF RESIDUALS GENERATION FOR THE YEAR 2000

- TRM Table Q or its equivalent should be prepared as per instructions in the TRM (p. E-8) and in "Additional Instructions For Data Analysis" (p. 6). This table estimates the amount of residuals that will be generated during the year 2000 as a result of the treatments that will occur according to TRM Table P.

- Please note that the residuals generation factor for "Other Recycling" is dependent upon the types of wastes involved and the types of treatment to be employed. This factor is not zero but instead a weighted average of residuals produced by these processes, which is to be estimated by the county. Provide a basis for the estimation.

- By combining the quantities of residuals generated by all generalized treatment methods listed in TRM Table Q, the county produces an estimate, in tons, of the total residuals to be generated during the year 2000. Since residuals disposal facilities are designed to accommodate more than one year's residuals generation, the residuals disposal capacity need should be determined for at least the planning period. To accomplish this, it is recommended that the residuals generation be estimated for every year between the present and 2000. The simplest method is to use the total Quantity of Residuals Remaining in Table 5-2 and increase this amount for each subsequent year by the prorated difference between the current and the year 2000 residuals generation estimates.

- TRM Table Q, with the analysis described above, was intended to provide a basis by which the county can determine its projected need for residuals repositories. Until this table has been properly completed no conclusion can be drawn on the need for residuals repositories in Los Angeles county.

COMMENTS ON DATA RELATED TEXT FOR LOS ANGELES COUNTY'S DRAFT CHWMP

Page 2-3, Section B, para.3

The draft CHWMP assumes that waste generation quantities obtained from the 1984 surveys can be extrapolated to estimate and characterize, by waste group, the county's total 1984 hazardous waste stream. Table 2-1 (p. 2-4) tabulates the result of this extrapolation by Quantities Treated Onsite, Quantities Treated Offsite, and Quantities Landfilled Offsite. The Plan should compare the extrapolated quantities for wastes which are managed offsite with DHS manifest data for 1984 to validate this assumption. A discussion of the validation results should be included in the Plan.

Although verification of estimated quantities of waste treated onsite may not be possible at this time, the Plan should discuss the limitations of using a sample which is voluntary-response-dependent to estimate quantities of waste which are treated onsite.

Page 2-5, para. 1

The CHWMP states, "...it has been assumed that the County's total hazardous waste generation rate for the 1986 would remain the same as those generated in 1984." The Plan does not justify that this assumption can be made with respect to estimating total waste generation. In addition, the data provided from state manifests identify significant differences, by waste group, for the years 1984 and 1986 (e.g., Table 2-3 60% increase in waste oil, 81% increase in halogenated solvents, 35% increase in non-halogenated solvents, etc.). Thus, an analysis based on the above assumption will produce errors in estimating the capacity requirements for a particular generalized treatment method when generation quantities within specific waste groups are disparate from year to year. See DHS comments on suggested TRM Table I for more information on estimating representative waste generation quantities to be used to determine the county's current and projected needs.

To further compound the problem, the estimation for quantities of waste managed on the site of generation for 1986 are derived by subtracting 1986 manifested waste quantities from the 1984 total waste management quantities (see p. 2-4, Table 2-1; p. 2-5, Bullets 1, 2, 3; and p. 2-6, Table 2-2). Portions of the data analysis based on this methodology are unacceptable and must be changed. The county should follow the method outlined in the DHS Data Comments (TRM Table H) for developing onsite treatment quantities.

Page 2-8, para. 2
Page 2-10, Table 2-5

Text and Table should be changed from projected 1986 off-site manifested data to 1986 DHS supplied manifest data.

Page 2-8, para. 3

The Plan states, "It should be noted that the manifest system is double counting those wastes that are transported to treatment or disposal facilities via a transfer station. . ." The Plan should describe a methodology for making adjustments to eliminate the double counting of manifested waste. The county should contact transfer stations and only subtract waste quantities derived from transfer operations (i.e. waste generated on the site of a transfer station does not represent a double count and, therefore, should not be included in column 3 of Table I.)

The Plan discusses the problem created by manifests being erroneously completed by "non-technical personnel". This problem should be stated as an example to emphasize the importance of contacting major generators so significant discrepancies can be corrected based on those contacts.

Page 2-8, para. 4
Page 2-14, Table 2-8

"Out-of-State exports" and "Destination Unknown exports" are shown as 1.2% and 24.3% in the text and should be corrected to 1.6% and 33.2% as shown in Table 2-8.

Page 2-15, para. 1
The Plan should state that data on nonhazardous waste, exempted waste, and specified waste should be used to adjust representative waste generation quantities in Table 5-1 col. 5.

Page 2-15, para. 3

The figure for the quantity of household hazardous waste generated in 1986 is 63,778 tons per year in this section, while Table 2-10 and Table 12-23 show household hazardous waste generated in 1986 as being 25,915 tons. Rectify this discrepancy.

Page 2-15, para. 4 (H. Contaminated Waste)

"Contaminated Waste" should be changed to "Contaminated Soil" throughout the text.

The Plan states "It is estimated in Chapter 11, Inactive Hazardous Waste Sites, that approximately 225,000 tons of

hazardous waste can be generated annually from cleanup activities and contaminated sites at a minimum for the next ten years." The Plan should clarify that this approximation is based solely on estimates of contaminated soils resulting from the cleanup of leaking underground storage tanks. See additional comments on estimation of quantities of contaminated soil in comments on Chapter 11.

page 2-18 (#8)

National studies which are referred to in this section should be cited or referenced in a footnote.

page 2-18 (#9)

Land Disposal Restriction date appears to be incorrect. Change the date from May 1980 to May 1990.

Page 2-18

We suggest the following changes: "It is the goal of this plan that Los Angeles County will be responsible for the total management ~~generation~~ of hazardous waste generated in the county and that other counties will also be responsible for the management of their respective wastes.

DEPARTMENT OF HEALTH SERVICES
APPROVAL CRITERIA FOR THE
LOS ANGELES COUNTY
DRAFT HAZARDOUS WASTE MANAGEMENT PLAN

The following criteria will be used by the Department of Health Services to determine if your final Plan substantially complies with the Guidelines For The Preparation Of Hazardous Waste Management Plans. The draft Plan submitted by your county has been reviewed against these criteria to assist you in evaluating those sections of the draft Plan which need to be changed or deleted in order for the final Plan to be approved by the Department.

Following each of the criteria are the applicable section numbers of the draft Plan for which the Department had provided comments which must be adequately addressed. Some of the criteria may not be applicable at this time but must be addressed at the time of final Plan review.

1. The final Plan has been approved by a majority of the cities within the county which contain a majority of the population of the incorporated area of the county. - Not Yet Applicable: To be determined at the time of final Plan review.

2. The Plan substantially complies with these Guidelines. - Unsatisfactory: Adequate response must be given to all comments provided by the Department.

3. The provisions of CEQA have been met. - Not Yet Applicable: To be determined at the time of final Plan review.

4. The process described in the Plan provides for safe and effective management of all hazardous wastes produced in the planning area. - Unsatisfactory: Adequate response must be given to all comments provided by the Department.

5. The Plan is based on data provided by the Department or data which has been locally validated and approved by the Department. - Not Yet Applicable: To be determined at the time of final Plan review.

6. The Plan identifies projected facility and siting needs using data and methods approved by the Department. - Unsatisfactory: (3.5.4, 3.5.7 and Attachment A)

7. The Plan recognizes the importance of minimizing hazardous waste production and includes recommendations regarding programs to promote source reduction and recycling which now exist or are planned for implementation. - Unsatisfactory; (3.5.2 and 3.5.4)

8. The Plan provides the planning framework for facilities necessary to manage the hazardous waste generated within the planning area to the year 2000. - Unsatisfactory: (3.5.2, 3.5.4, and Attachment A)

9. The process to develop the Plan considered the inputs and interests of local and state governments, as well as those of the public, industry and environmental organizations. - Satisfactory.

10. The Plan contains siting criteria and designates general areas or specific sites consistent with those criteria, which effectively allow for expansion of existing and the siting of new hazardous waste management facilities in the county developing the Plan while protecting human health and the environment. - Unsatisfactory. (3.5.7, 3.5.7.1, and 3.5.7.2)

11. When the Plan designates areas within the county over which the county has no jurisdiction as appropriate for siting facilities, the Plan shall include a statement of understanding and acceptance from the affected jurisdictions. - Unsatisfactory. (3.5.7, 3.5.7.1, and 3.5.7.2)

12. The Plan recognizes that land disposal of untreated hazardous wastes will be banned after May 8, 1990 and plans for a system of single-county or multi-county facilities which will responsibly manage hazardous wastes in the planning area. - Unsatisfactory. (3.2, 3.5.4, 3.5.7, and Attachment A)

13. The Plan contains a clear tabulation of all wastes that are imported or are expected to be imported from counties and states. - Unsatisfactory: (Attachment A)

14. Goals, policies and objectives of the county concerning hazardous waste management are expressed in the Plan and are designed to achieve the purposes reflected throughout the Guidelines. - Unsatisfactory: (3.2 and 3.3)

15. The Plan formally recognizes the importance of a statewide hazardous waste management system which provides for effective and efficient hazardous waste management by a combination of on and off-site facilities to manage California's entire waste stream, current and projected to the year 2000. - Unsatisfactory: (3.2 and 3.3)

16. The process for approval of a single or multi-county off-site facility as reflected in Goals, Objectives and Policies of the Plan includes local legislative body approval in conformance with Section 21081 of the Public Resources Code (CEQA) and a finding of consistency with the approved Plan. Such finding shall be based on consistency with siting criteria presented in the approved Plan and on need which has been demonstrated when a local land use decision is being made. - Unsatisfactory. (3.2, 3.3, 3.5.7)

17. Where appropriate, the regional Plan developed by a COG and the Plans developed by the counties and cities therein are consistent. - Not Yet Applicable: To be determined at the time of final Plan review.

18. The Plan provides for the safe transport of hazardous wastes from the source of generation to points of management regarding routing and emergency response. - Satisfactory.

19. The Plan describes the county programs, to the extent of delegated authority, to monitor and enforce existing local, state, and federal hazardous waste management laws and regulations. - Satisfactory.

20. The Plan addresses mitigation of impacts on counties which site facilities with more capacity than is needed for wastes produced within the county. Mitigation of impacts can consist of compensation, reimbursement of costs, either monetary or otherwise, or other arrangements agreed upon by all affected counties or cities. - Unsatisfactory: (3.5.7.2)

21. The Plan shall identify and provide for appropriate organization to implement local government responsibilities defined in the Plan and recommend methods of funding implementation. - Satisfactory: It is recommended that an estimate of the cost or budget of the programs and an estimate of the total staff time that will be devoted annually to the programs be included.

22. The Plan includes a schedule to amend the general plan and/or zoning ordinances as necessary for consistency. - Satisfactory.

23. The Plan includes processes for its periodic review and update. This will allow for changes in data, technology, economic development and goals and objectives for responsible management of hazardous wastes. - Satisfactory.

24. The Plan meets the requirements of Section 25135.1(d) of the Health and Safety Code. - Unsatisfactory (Adequate response must be given to all comments provided by the Department).