

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD8800 Cal Center Drive
Sacramento, California 95826

Jesse Huff, Chairman
Sam Egigian, Member
Paul Relis, Member

Wednesday, April 21, 1993
10:00 a.m.
meeting of the

PERMITTING AND ENFORCEMENT COMMITTEE

of the
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

8800 Cal Center Drive
Sacramento, CA 95826

AGENDA

- Note: o Agenda items may be taken out of order.
o If written comments are submitted, please provide 20 two-sided copies.

Important Notice: The Board intends that Committee Meetings will constitute the time and place where the major discussion and deliberation of a listed matter will be initiated. After consideration by the Committee, matters requiring Board action will be placed on an upcoming Board Meeting Agenda. Discussion of matters on Board Meeting Agendas may be limited if the matters are placed on the Board's Consent Agenda by the Committee. Persons interested in commenting on an item being considered by a Board Committee or the full Board are advised to make comments at the Committee meeting where the matter is considered.

1. DISCUSSION OF CIWMB PARTICIPATION IN CAL/EPA INTEGRATED INSPECTIONS
2. UPDATE ON APPLICATION TO EPA UNDER SUBTITLE D OF THE FEDERAL RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) (oral presentation)
3. CONSIDERATION OF A DRAFT PERMIT FOR THE AUTHORITY TO CONSTRUCT (ATC) UNDER A COOPERATIVE AGREEMENT SIGNED DECEMBER 10, 1992, BETWEEN THE CAMPO ENVIRONMENTAL PROTECTION AGENCY (CEPA) AND THE STATE OF CALIFORNIA, CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CAL/EPA) IN COMPLIANCE WITH THE REQUIREMENTS OF DIVISION 30, PART 4, CHAPTER 3, ARTICLE 4 OF THE PUBLIC RESOURCES CODE, ENTITLED

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DEVELOPMENT OF SOLID WASTE MANAGEMENT FACILITIES ON INDIAN
COUNTRY

4. OPEN DISCUSSION
5. ADJOURNMENT

Notice: The Committee may hold a closed session to discuss the appointment or employment of public employees and litigation under authority of Government Code Sections 11126 (a) and (q), respectively.

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CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Permitting and Enforcement Committee
April 21, 1993

AGENDA ITEM 1

ITEM: Discussion of CIWMB Participation in Cal/EPA Integrated Inspections

Background:

Currently, the State of California has assigned various distinct and separate agencies the responsibility for regulating specific environmental issues. The agencies charged with protecting the environment in California are the California Air Resources Board, State Water Resources Control Board, California Integrated Waste Management Board, Department of Toxic Substances Control, Department of Pesticide Regulation, and the Office of Environmental Health Hazard Assessment. In 1991 Governor Wilson created the California Environmental Protection Agency (Cal-EPA). Cal-EPA is responsible for providing overall management and policy guidance in an effort to coordinate the implementation of environmental regulations in California.

Cal-EPA has recently instituted a program whereby specific types of facilities are targeted and evaluated using an integrated approach. These facilities include shipyards, federal facilities, and disposal sites. The integrated approach involves a coordinated inspection by the various agencies under the Cal-EPA umbrella in order to identify, document, and address violations of various state and local laws and regulations. The Federal EPA has successfully used this approach on a national level to address and respond to sensitive environmental issues. There is also a statutory basis for conducting integrated inspections. It can be found under Division 30, of the Public Resources Code, Sections 43301 and 43302. Section 43301 states that the California Integrated Waste Management Board (Board) shall coordinate action in solid waste handling and disposal with other federal, state, and local agencies and private persons. Section 43302 states that the Board may request enforcement by appropriate federal, state, and local agencies of their respective laws governing solid waste storage, handling, and disposal.

Disposal sites naturally lend themselves to multi-agency inspections due to their wide ranging environmental impacts. In selecting sites for these inspections, a list of priority disposal sites is transmitted to Cal-EPA on a quarterly basis by Board compliance staff along with projections of all solid waste facility inspections. These priority disposal sites are then discussed at Cal-EPA inter-agency Enforcement Coordination meetings, and a selection is made. Board staff then coordinate pre-inspection briefings with the various participants in order

to identify issues and finalize inspection details. To date, Board compliance staff have coordinated and participated in three integrated inspections, the results of which are summarized below.

Analysis:

Bisso Brothers Ranch (49-AA-0243) Sonoma County

Bisso Brothers Ranch is an illegal unpermitted disposal site located in southern Sonoma County. Wastes disposed of at the site include wood waste, caustic cement related waste, asbestos containing waste, and various other types of solid waste. The site is situated in an ecologically sensitive area because of its proximity to a northern estuary of San Francisco Bay.

After receiving complaints concerning unhealthful septage and sanitary conditions, the site was first inspected by the Sonoma County Public Health Department (LEA) on March 11, 1986. Based on the findings of this inspection, the LEA referred the case to County Counsel for action. The LEA performed subsequent inspections on March 3, 1989, and February 20, 1991 in an effort to monitor the situation and collect additional evidence while the case worked its way through the legal system. The Superior Court of Sonoma County issued a tentative judgement for the LEA on December 18, 1992. The judgement requires the owner to cleanup the illegally disposed waste. A final judgement will be issued once specific wording can be agreed upon.

Board compliance staff took the lead in coordinating the joint agency inspection. The inspection was originally scheduled for March 9, 1993 but was postponed because access to the site was denied. An inspection warrant was obtained and the inspection was finally conducted on March 11, 1993. Staff members of the various agencies present during the inspection were from the California Integrated Waste Management Board, Bay Area Air Quality Management District (BAAQMD), Bay Area Regional Water Quality Control Board (BARWQCB), and the Sonoma County Public Health Department.

During the inspection, areas containing waste that had been previously documented by the LEA were inspected, as were areas of more recent disposal. Some of the major State Minimum Standard violations that Board staff documented were cover, intermediate cover, waste in contact with water, grading of fill surfaces, drainage and erosion control, vector control, fire control, and hazardous waste. Twenty-six samples of wastes suspected of containing friable asbestos were taken by the BAAQMD. Seven samples tested positive for friable asbestos. Concentrations ranging up to 30% friable asbestos were measured. Water samples

were also collected by the BARWQCB. Some metals of concern were found in some of the samples. Other samples tested high and low for PH, 12 and 2.9 respectively.

In retrospect, the inspection achieved its objective which was to get all appropriate agencies coordinated in enforcing their respective laws and regulations and to fully assess the waste type and disposal impacts so that effective cleanup can be achieved. At this time, all the agencies present during the inspection will be taking an active role in ensuring that the site is properly remediated.

Milliken Refuse Disposal Site (36-AA-0054) San Bernardino County

The permitted owner and operator of this class III facility is the County of San Bernardino Solid Waste Management Department, although on-site operations are now sub-contracted to NORCAL of San Bernardino. The site is located in the city of Ontario near the western edge of the county and the surrounding land use is industrial and commercial with development encroaching on the west, south and east sides. It receives an average of 2000 tons per day of municipal solid waste from the southwestern portion of the county and is scheduled to close later this year.

In August of 1992, Board and LEA staff conducted a state annual inspection of this facility and found several violations of state minimum standards, including several relating to water quality issues.

On March 2, 1993, this facility was inspected by Board compliance staff, the San Bernardino LEA, the Santa Ana Regional Water Quality Control Board (SARWQCB), the Air Resources Board's (ARB) Compliance and Heavy Duty Diesel Sections, and the South Coast Air Quality Management District's (SCAQMD) Compliance and Source Testing Sections. Board and LEA staff identified ten violations of the Public Resources Code and Title 14, California Code of Regulations, including ongoing Solid Waste Facility Permit violations, failure to submit Closure/Post-Closure Maintenance plans, Daily Cover, Intermediate Cover, Grading of Fill Surfaces, Leachate Control, and Drainage and Erosion Control. Some of these were repeat violations documented during the 1992 annual inspection.

Board staff coordinated closely during the inspection process with the SARWQCB concerning water quality issues, and their staff found a lack of compliance with a Cleanup and Abatement Order

they had previously issued to the operator regarding chronic drainage problems. The ARB and SCAQMD Compliance sections teamed up and conducted a comprehensive survey of landfill surface gas emissions and found several areas where levels exceeded the 500 parts per million limit. Board staff tested along the landfill boundary for gas migration and found the facility in compliance with this aspect of Gas Control. As of this writing, neither the ARB's Heavy Duty Diesel Section nor the SCAQMD's Source Testing Section have issued their reports. Once they do, the various agencies' reports will be compiled and sent to each of the other participating agencies and a follow-up meeting will be held to coordinate enforcement actions.

Sacramento City Landfill (34-AA-0018) Sacramento County

This facility is a permitted, class III landfill owned and operated by the City of Sacramento and is located at 28th and "A" streets. It is bounded on the north by the American River and on the east by the Business 80 Freeway. It is a permitted active facility, currently under an LEA issued Notice and Order for exceeding the permitted tonnage of 600 tons per day in violation of the Solid Waste Facilities Permit. The N&O limits them to a maximum of 820 TPD.

During the period between January 22, 1991 and September 15, 1992 when the integrated inspection was conducted, the LEA reported the results of 20 monthly inspections to Board staff which include the following violations of State Minimum Standards:

<u>14 CCR Section</u>	<u>Number of Violations</u>
17658 - Site Security	1
17670 - Personnel Health and Safety	5
17684 - Intermediate Cover	2
17693 - General Equipment	1
17704 - Leachate Control	1
17705 - Gas Control	13
17711 - Litter Control	1
17713 - Odor Control	1

Of particular concern to Board staff was the documented volatile organic compounds (VOCs) found in groundwater samples taken from wells along the southern landfill perimeter. Due to the indication of off-site groundwater contamination and repeated gas control violations, it was decided to forward the facility to Cal-EPA for consideration of conducting an integrated inspection.

Board staff coordinated the multi-agency inspection of Sacramento City Landfill (34-AA-0018) on September 15, 1992 involving the following agencies: CIWMB, ARB, DTSC, RWQCB, LEA, and Cal-EPA. Some of the major State Minimum Standard violations that Board staff documented during the joint agency inspection were leachate control and gas control.

Currently, the LEA is negotiating a compliance agreement with the operator regarding these ongoing violations:

- 30 PRC 44004 - Significant Change
- 14 CCR 18222 - RDSI
- 14 CCR 17658 - Site Security
- 14 CCR 17704 - Leachate Control
- 14 CCR 17705 - Gas Control
- 14 CCR 18262 - Final Closure Plans

CONCLUSION:

Compliance Branch staff will continue to be involve with integrated inspections acting as lead or as a participant and will involve Local Enforcement Agencies when ever possible. It is the hope that through this involvement that a comprehensive and even more effective enforcement program can be established.

STAFF RECOMMENDATIONS:

This is an information item.

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CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Permitting & Enforcement Committee
April 21, 1993

AGENDA ITEM 3

ITEM: Consideration of a Draft Permit for the Authority to Construct (ATC) Under a Cooperative Agreement Signed December 10, 1992, Between the Campo Environmental Protection Agency (CEPA) and the State of California, California Environmental Protection Agency (Cal/EPA) in Compliance with the Requirements of Division 30, Part 4, Chapter 3, Article 4 of the Public Resources Code, Entitled Development of Solid Waste Management Facilities on Indian Country

COMMITTEE ACTION:

The Permitting and Enforcement Committee met in San Diego on March 26, 1993, to take public testimony about the project. The committee took no action at that time.

BACKGROUND:

Name: Campo Landfill, Facility No. 37-AT-0001

Facility Type: Class III Landfill

Location: 1779 Campo Track Trail, Campo, California

Area: 600 acres total, 400 acres to be used for disposal

Setting: Surrounding land uses include agriculture, sand and gravel mining and multiple rural use

Tonnage: Proposed average of 3000 tons of non-hazardous waste per operating day

Operational Status: New, not yet constructed

Waste Types: Residential, construction and demolition, industrial, commercial, sewage sludge, septage, abandoned vehicles, tires, dead animals, agricultural and inert materials

Volumetric Capacity: 40,000,000 cubic yards, site life of approximately 30 years

Owner: Muht-Hei, Inc., a Tribal Corporation

Operator: Muht-Hei/Mid-American Waste Systems, Inc
R. Jay Roberts, Vice President of Operations

Enforcement Agency: Campo Environmental Protection Agency, Michael Connolly, Director

Proposed Project Muht-Hei Inc. proposes to develop an integrated solid waste management project on their tribal lands. The project will eventually include a sanitary landfill, a materials recovery facility, and a composting facility. The part being considered at this time is the proposed construction of a new Class III landfill on 600 acres of the Campo Indian Reservation in San Diego County (Attachment 1). The landfill footprint will ultimately include approximately 400 acres. The majority of the waste delivered to the landfill will arrive via rail on the San Diego & Imperial Valley Railroad (SD & IV).

This permit is a Tentative Authority to Construct (ATC). Approval in this permit will not result in authorization to dispose waste. The Campo Environmental Protection Agency (CEPA) will submit another proposed permit for Board review and consideration which will address the operation of the landfill.

BACKGROUND:

Assembly Bill 240 (AB 240) Solid waste disposal on Indian Lands is regulated through AB 240 (Peace), Ch. 805, Statutes of 1991. AB 240 states that any tribe considering a proposal to construct a solid waste facility on its land within the state of California may enter into negotiations with the Secretary for Environmental Protection, [California Environmental Protection Agency; (Cal/EPA)] to reach a Cooperative Agreement (Agreement). The Agreement defines the respective rights, duties, and obligations of the state and the tribe concerning approval, development, and operation of the proposed facility.

Pursuant to AB 240, the Agreement shall include, but not be limited to, all requirements deemed necessary to regulate a solid waste facility including design, permitting, construction, siting, operation, monitoring, inspection, closure postclosure, liability, and enforcement requirements. These requirements should be functionally equivalent to the relevant Sections of the Water Code, the Health and Safety Code, and the Public Resources Code. Additionally, the Agreement shall include necessary requirements to 1) protect water quality, as determined by the State Water Resources Control Board or the appropriate California Regional Quality Control Board; 2) protect air quality, as determined by the State Air Resources Board or the appropriate Air Pollution Control Officer and 3) provide for proper management of solid wastes, as determined necessary by the California Integrated Waste Management Board.

Campo Environmental Protection Agency (CEPA) The Campo tribal government has created and empowered CEPA to adopt and enforce standards and regulations specifically designed to protect the environmental quality of the Reservation. By organizing its

permitting authority under a single agency (CEPA) the Campo tribal government has used a consolidated approval to permitting with a single agency responsible for overseeing all environmental issues. Permits issued by CEPA should cover the same requirements included in the state-issued Solid Waste Facility Permit (CIWMB), Authority to Construct (APCD), Permit to Operate (APCD), and Waste Discharge Requirements (RWQCB).

CEPA is requiring two permits for this facility. An Authority to Construct would govern the initial construction phase and a Permit to Operate (PTO) would govern facility operations.

Comprehensive regulations covering solid waste management were adopted in Title V of the Campo Band of Mission Indians Code of Tribal Regulations (V CTR) in February, 1991 after a public hearing and public comment. Title V was amended in July, 1992 to include responses to comments. Some of which were submitted by state agencies and to comply fully with newly promulgated federal regulations (Code of Federal Regulations, Title 40, Part 258; Subtitle D).

Cooperative Agreement Pursuant to AB 240, CEPA initiated negotiations with Cal/EPA on March 9, 1992 and on December 10, 1992 a Cooperative Agreement between the Campo Environmental Protection Agency and the state of California was ratified; a copy is provided as Attachment 2.

By entering into the Agreement with CEPA, the state has certified that CEPA's regulations are functionally equivalent to those of the state, and, if followed, will provide the same level of environmental protection as would be provided by state statutes and regulations.

Section VI, entitled Permit Review, of the Agreement states,

State Agencies shall review any draft tribal permit and any applicable federal permit to determine, based on existing policies, practices, and precedents, whether it contains conditions sufficient to...2) provide not less than the level of protection for public health, safety, and the environment that would have been achieved if that State Agency had issued the permit.

Local Opposition There are a number of property owners in the general vicinity of the project who feel that the landfill is an inappropriate land use and will adversely impact their backcountry communities. The main concern of those in opposition is that the proposed landfill has the potential to degrade groundwater. Groundwater is the sole source of water for both domestic and agricultural use in southeastern San Diego County, and extending into Mexico.

Opponents to the project contend that the project proponents have inaccurately assessed the hydrogeologic setting of the project. At question are the historic groundwater levels. Proponents contend that water levels are historically well below the surface, and the proposed design would adequately provide for the five (5) foot separation between water and waste required by California and Campo Tribal regulations. Opponents have stated that groundwater is historically near the surface, even on hilltops, and is often manifested in artesian springs.

Another area of disagreement is the monitorability of the site. Proponents and opponents agree that the site is underlaid by fractured bedrock which contains some of the area's groundwater. Proponents assert that a monitoring system can be installed to adequately detect any leachate that may breach the liner system, and any leachate can be remediated before it reaches the fractured bedrock. Opponents disagree with this determination.

Board staff have not analyzed either of these issues, as these are the responsibility of the State Water Resources Control Board (SWRCB) according to AB 240.

SUMMARY:

Project Description The Campo Indian Reservation, which consists of 15,580 acres in southeastern San Diego County, lies just north of the United States/Mexico border approximately 45 miles from the Pacific ocean. Travel distance from the City of San Diego to the reservation is approximately 60 miles via Interstate 8 and 73 miles via the San Diego and Imperial Valley Railroad (SD & IV) (Attachment 3).

The proposed project would be developed entirely on the Campo Indian Reservation. The project site is a 600-acre area in the southeastern portion of Campo lands in Sections 10 and 15, Township 18, South, Range 6 East. This portion of the reservation is bounded by private lands to the east and south and partially to the west. The distance from the eastern edge of the landfill to the nearest residence outside the reservation is approximately 1,100 feet.

The proposed project consists of the construction of a 400-acre class III landfill. The landfill perimeter road and east ridge berm will cover an additional 25 acres. The capacity of the landfill is estimated to be up to 40 million cubic yards of waste. The proposed waste delivery rate is approximately 3,000 tons per day (tpd) for approximately 30 years.

Initial landfill construction activities will include the construction of the first phase and all ancillary facilities

required for landfill operation. Ancillary facilities include access roads, offices, maintenance facilities, scales, railroad sidings, utilities, the leachate collection system, the landfill gas collection system, sedimentation basins, soil stockpile areas, and stormwater drainage facilities. Excavation of the landfill will take place in stages with successive areas cleared, leveled, compacted, and prepared for landfilling. The entire disposal area will be divided into 19 phases. The first phase will be in the northwest corner of the site. Landfill development would then progress to the south and end with the last phase in the southeast corner of the site (Attachment 4).

The first phase of landfill construction will require approximately nine months. This phase includes initial construction of gas and groundwater monitoring wells, excavation and lining of the first 20-acre phase, construction of the leachate collection network and construction of ancillary facilities, including the access road and railroad siding.

Environmental Controls A dual liner system with a leachate collection and removal system will be installed over a 60-mil synthetic primary liner. These are underlain by a leak detection system (LDS), another 60-mil synthetic secondary liner, and 24 inches of compacted low permeability soil. The total thickness of the dual liner system is over 5 feet. A more detailed description of the dual liner system is provided as Attachment 5.

Landfill gas control would be accomplished by continuous installation of a gas collection system as part of ongoing landfill construction. The gas will be flared on site from a flare system, including three flares of differing capacities contained in a single stack.

A dust control program will be implemented to control fugitive dust in the project area. The project proponent proposes to establish and carry out a regular program of water sprinkling of the unpaved access routes of any areas traversed by landfill operating machinery and vehicles. All grading and excavating activities will cease during periods of high winds. Vehicle speeds on site will be enforced at no greater than 15 miles per hour.

ANALYSIS:

Requirements For Functional Equivalency of the Solid Waste Facilities Permit with State Standards The Cooperative Agreement between the Campo Environmental Protection Agency and the State of California, Section VI, B, mandates State Agencies to provide comments within seventy-five days of receipt of the draft permit. Since the permit was received on December 4, 1992 the last day the Board could act is February 18, 1993. Pursuant to the Agreement and AB 240, the parties may mutually agree in writing to modify the

time periods for actions required by the Agreement or provisions of AB 240 (Cooperative Agreement Section X, B; Public Resources Code Section 44204 (e)). CEPA has agreed to extend the comment period required in the Agreement until March 31, 1993 (Attachment 6).

Pursuant to AB 240 Board staff have reviewed the following items from the application package submitted by CEPA:

- Descriptions of proposed landfill operations
- Proposed drainage and erosion control measures
- The landfill gas collection and monitoring systems
- The slope stability study
- The proposed leachate control system
- Closure and postclosure maintenance plans.

Remaining Technical Concerns Staff initially had several concerns with the proposed permit and application. These were expressed to CEPA on February 2, 1993 (Attachment 7). After more negotiations with CEPA only one technical issue remained with respect to the construction of the landfill, i.e. slope stability. Because of the proposed sequencing of the development of the landfill, staff does not feel that this should influence the Board's decision concerning the ATC. Since the ATC will not result in authorization to dispose waste, staff will resolve this issue in the intervening period prior to the proposal of a Permit to Operate. Copies of Board staff comment letters including identification of permit items which require further review are provided in Attachment 7.

Additional questions may arise which are relevant to the operational phase of the project, e.g. adequacy of a financial assurance mechanism. Staff makes no judgements at this time as to the adequacy of the project to operate as a solid waste landfill, and reserves that judgement for a later time when the Permit to Operate is proposed.

Water Quality and Monitorability of the Project Pursuant to AB 240, the protection of water quality is to be determined by the State Water Resource Control Board (Water Board). Ordinarily, Waste Discharge Requirements would be incorporated into the Solid Waste Facilities Permit.

The SWRCB staff held a public workshop in San Diego on April 2, 1993. A report concerning SWRCB staff concerns over the project was released to CEPA and the public on April 9, 1993 (Attachment 9). The SWRCB will hold a public hearing of the matter at their regularly scheduled meeting of April 27, 1993.

Air Quality The protection of air quality is to be determined by the State Air Resources Board or the appropriate Air Pollution Control Officer. Staff of the San Diego Air Pollution Control District reviewed the application package and submitted comments to CEPA on March 23, 1993 (Attachment 10).

Analysis of Environmental Impacts Consideration of any permits proposed under an authorized Cooperative Agreement are statutorily exempt from the requirements of the California Environmental Quality Act (CEQA).

National Environmental Policy Act (NEPA) NEPA (40 CFR Parts 1500-1508) requires preparation of an Environmental Impact Statement (EIS) when a proposed action is projected to have a significant impact on the quality of the human environment. An EIS is intended to provide decision makers and the public with a complete and objective evaluation of significant environmental impacts, both beneficial and adverse, resulting from a proposed action.

The Bureau of Indian Affairs (BIA) is responsible for determining whether to approve the proposed lease and subleases and thereby authorize construction of the proposed project. Such approval is a federal action subject to the requirements of NEPA. As Lead Agency under NEPA and as Trustee of Indian Lands, the BIA prepared a draft Environmental Impact Statement and Final Environmental Impact Statement which present an analysis of the potential environmental consequences of the proposed project.

Staff reviewed and provided comment on the Draft EIS. The Final EIS (FEIS) was distributed for review in December, 1992. Staff reviewed the FEIS to determine if CIWMB comments were adequately addressed. Staff provided comments to the lead agency regarding the FEIS which identified the following two concerns:

1. The document does not adequately describe the setting of the rail haul part of the project. Consequently, the impacts associated with the rail haul have not been completely assessed; and
2. The hydrogeologic setting of the landfill site has not been adequately characterized.

Rail Haul Staff properly commented on the adequacy of the rail haul part of the project in a broad concern for the whole project. While NEPA concerns itself with "whole" projects, i.e., all components of an integrated project, the Agreement establishes that the Board consider only the potential environmental impacts of the part of the project that it would normally permit, i.e. the proposed landfill.

Hydrogeology Staff's second concern regards the characterization

of the hydrogeologic setting of the landfill. The hydrologic setting of the landfill should be adequately analyzed by Water Board staff in their review of the application package.

Mitigation Monitoring and Implementation Program (MMIP) The final act of a lead agency under NEPA is to publish a Record of Decision (ROD) concerning the project. The ROD includes a MMIP which must be implemented by the proponent. As of the date this item went to print, the ROD had not yet been published in the Federal Register. However, the only remaining relevant issue raised by the staff during the NEPA process has to do with water quality, and should be addressed in the report by the State Water Resources Control Board (SWRCB). Ultimately, before the lease will be issued by BIA the ROD and MMIP must be published. In addition, the ATC contains a provision that the lease must be finalized prior to construction.

After reviewing the environmental documentation for the project, Board staff have determined that the document is adequate and appropriate for the Board's use in evaluating the proposed project.

Compliance with Minimum Standards CEPA has made a determination that the facility's proposed design is in compliance with the minimum standards of the Campo Band of Mission Indians Code of Tribal Regulations based on their review of the application package.

DISCUSSION:

Pursuant to the Cooperative Agreement, CEPA has submitted a draft permit for the Authority to Construct (ATC) to the Board. Under the Agreement, the Board must determine based on existing policies, practices, and precedents, whether this permit is consistent with:

1. the functionally equivalent standards outlined in the Agreement;
2. the levels of protection for public health, safety, and the environment that would have been achieved if the Board had issued the permit; and
3. all feasible mitigation measures relevant to the ATC.

Staff have reviewed the ATC and its supporting documentation and, with the exception of water and air quality issues (reviewed by other state agencies), have determined that it contains conditions sufficient to allow the Board to make the above findings.

ATTACHMENTS:

1. Location Map

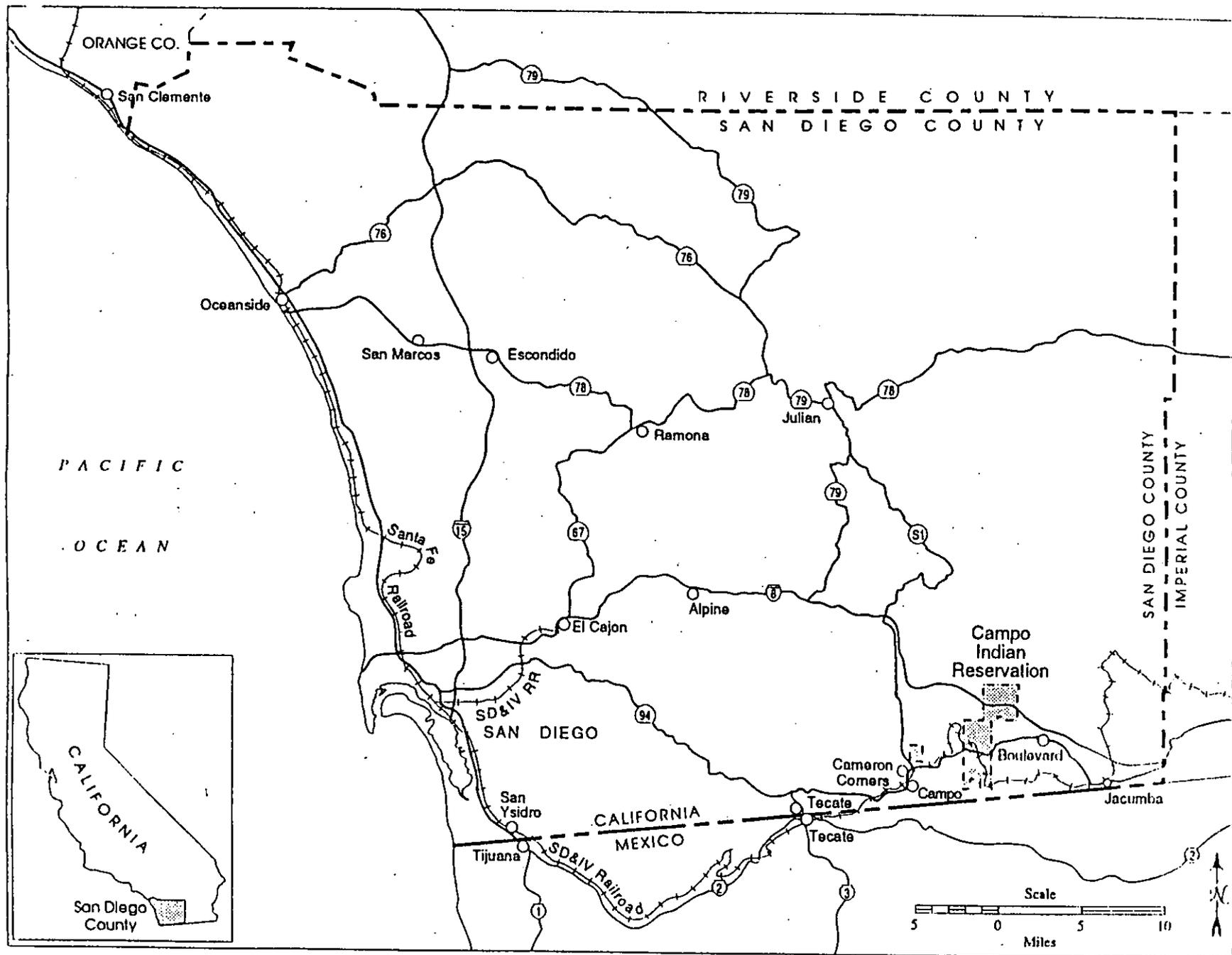
2. Cooperative Agreement
3. Site Map
4. Landfill Excavation Plan
5. Liner System Design
6. Letter from CEPA Extending Review Time
7. Comment Letters From Board Staff/CEPA
8. Tentative Authority to Construct 37-AT-0001
9. SWRCB Staff Report
10. SDAPCD Staff Report
11. Written Public Comments (3)

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LOCATION OF THE CAMPO INDIAN RESERVATION IN SAN DIEGO COUNTY

ATTACHMENT 2

COOPERATIVE AGREEMENT BETWEEN THE CAMPO
ENVIRONMENTAL PROTECTION AGENCY AND
THE STATE OF CALIFORNIA

[PURSUANT TO THE PROVISIONS OF CHAPTER 805
OF THE STATUTES OF 1991 (AB 240)]

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AGREEMENT

THIS AGREEMENT is entered into in duplicate this ____ day of _____, 1992 by and between the CAMPO ENVIRONMENTAL PROTECTION AGENCY ("CEPA"), an agency of the Campo Band of Mission Indians, a federally-recognized Indian tribal government, whose address is 1779 Campo Truck Trail, Campo, California 91906; and the State of California, by and through the California Environmental Protection Agency, whose address is 555 Capitol Mall, Suite 235, Sacramento, California 95814, with reference to the following:

RECITALS

WHEREAS, the Campo Band of Mission Indians (the "Band") is a sovereign Indian tribal government, recognized as such by the Secretary of the Interior of the United States of America, and identified on page 52830 of Number 250 of Volume 53 (December 29, 1988) of the Federal Register, and

WHEREAS, the Band is attempting to promote its powers of self-government and to achieve economic independence through the establishment and operation of several business enterprises on the Campo Indian Reservation ("Reservation"); and

WHEREAS, the Campo General Council, the governing body of the Band, has authorized the development of a non-hazardous solid waste project on the Reservation, including a solid waste sanitary landfill, a composting facility, and a recycling facility; and

WHEREAS, the Campo General Council has established the Campo Environmental Protection Agency ("CEPA") for the purpose of regulating environmental quality on the Reservation; and

WHEREAS, the Campo Band of Mission Indians Solid Waste Management Code of 1990 (the "Solid Waste Code") directs CEPA to regulate solid waste handling and disposal on the Reservation for the protection of air, water, and land from pollution and nuisance and for the protection of public health; and

WHEREAS, the Solid Waste Code authorizes CEPA to enter into contracts to carry out its responsibilities; and

WHEREAS, an adequate system of regulation is necessary to improve and protect environmental quality on the Reservation and to protect the health, safety, and welfare of the residents and businesses of the Reservation and of southeastern San Diego County; and

WHEREAS, the State of California has a comprehensive program for the regulation of solid waste handling and disposal; and

WHEREAS, the state program is implemented and enforced in part by the California Environmental Protection Agency ("Cal/EPA"); California Integrated Waste Management Board ("CIWMB"); the State Water Resources Control Board ("SWRCS"); the California Regional Water Quality Control Board, San Diego Region ("Regional Board"); the Air Resources Board ("ARB"); and the San Diego County Air Pollution Control District ("San Diego APCD"), (collectively, the "State Agencies"); and

WHEREAS, CEPA finds that the State Agencies have the technical expertise to assist in enforcing CEPA's standards for solid waste handling and disposal, and CEPA wishes to enter into agreements with the State Agencies to obtain such assistance; and

WHEREAS, the State Agencies may determine that they have sufficient expert staff to provide the appropriate level of assistance to CEPA for specific tasks, and the State Agencies wish to enter into a general agreement with CEPA to provide such assistance where feasible and mutually agreed by future specific memoranda of agreement; and

WHEREAS, the California Legislature enacted legislation, Assembly Bill 240, Chapter 805, Statutes of 1991 ("Chapter 805") signed by the Governor on October 10, 1991, authorizing the Secretary of Cal/EPA ("the Secretary") to enter into cooperative agreements with Indian tribes concerning the regulation of Solid Waste Facilities; and

WHEREAS, CEPA submitted on March 9, 1992 a written request to the Secretary to convene negotiations concerning a cooperative agreement as authorized by Chapter 805; and

WHEREAS, CEPA submitted a draft cooperative agreement to the Secretary on March 9, 1992; and

WHEREAS, the Secretary, on July 30, 1992, provided public notice of his proposed action to enter into a cooperative agreement and of the findings and determinations that are required by Chapter 805; and

WHEREAS, a public hearing concerning the Secretary's proposed action was held on August 24, 1992, at Alpine, Ca.; and

WHEREAS, the proposal being considered by CEPA concerning Solid Waste Facilities within the boundaries of the Reservation is described in Appendix A to this Agreement; and

WHEREAS, the State Agencies have completed the determinations required by Chapter 805, including determinations

that the system of regulation established by CEPA for the facilities described in Appendix A meets the requirements of functional equivalency with certain state standards; and

WHEREAS, the Secretary has determined to enter into a cooperative agreement, as set forth herein;

NOW, THEREFORE, in consideration of the Recitals hereinabove mentioned and of the terms, conditions, covenants, and warranties hereinafter mentioned to be kept, honored, and performed by the parties, it is hereby agreed as follows:

TERMS AND CONDITIONS
Section I. Definitions

Unless otherwise expressly stated, the following terms used in this Agreement shall have the following meanings:

A. "Agreement" shall mean this Agreement between CEPA and the State.

B. "ARB" shall mean the Air Resources Board of the State of California.

C. "Band" shall mean the Campo Band of Mission Indians, an Indian tribe recognized by the Secretary of the Interior of the United States of America.

D. "Cal/EPA" shall mean the California Environmental Protection Agency.

E. "Campo General Council" shall mean the governing body of the Campo Band of Mission Indians.

F. "CEPA" shall mean the Campo Environmental Protection Agency, a governmental agency of the Band.

G. "CEPA Permit" shall mean a permit proposed or issued by CEPA authorizing and establishing conditions concerning the construction and operation of a solid waste project pursuant to the Solid Waste Regulations.

H. "CIWMB" shall mean the California Integrated Waste Management Board.

I. "Composting" shall mean the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which are separated at a centralized facility. "Compost" includes vegetable, yard, and wood wastes that are not hazardous waste.

J. "EPA" shall mean the United States Environmental Protection Agency.

K. "Hazardous waste" shall mean any substance, material, smoke, gas, particulate matter, or combination thereof that:

(1) because of its quantity, concentration, or physical, chemical, or infectious characteristics (defined in the Solid Waste Regulations as "infectious waste"), may either cause or significantly contribute to an increase in mortality or serious irreversible or incapacitating illness, or pose a substantial present or potential hazard to human health, living organisms, or the environment when improperly treated, stored, transported, disposed of, or otherwise handled;

(2) is defined to be hazardous or toxic by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or the Resource Conservation and Recovery Act of 1976, as either Act may be amended from time to time, and by any regulations promulgated thereunder, including but not limited to any substance, material, smoke, gas, particulate matter, or combination thereof containing asbestos or polychlorinated biphenyls ("PCBs"); or

(3) is hazardous, toxic, ignitable, reactive, or corrosive and that is defined and regulated as such by CEPA, the State of California, or the United States of America.

L. "Hazardous material" includes but is not limited to any hazardous material as defined in Chapter 6.95 of Division 20 of the California Health & Safety Code (commencing with section 25500) and any substance, material, smoke, gas, particulate matter, or combination thereof that is toxic, ignitable, reactive, corrosive, an irritant, a strong sensitizer, or which generates pressure through decomposition, heat, or other means, if it may cause substantial personal injury, serious illness, or harm to humans, domestic animals, or wildlife, during or as a proximate result of its disposal. The terms "toxic," "corrosive," "flammable," "irritant," and "strong sensitizer" shall be given the same meaning as in the California Hazardous Substances Act (Chapter 13 commencing with Section 28740 of Division 22 of the Health and Safety Code).

M. "Recycling Facility" shall mean the facility for recycling, including all appurtenant structures and equipment, including without limitation all access roads, all necessary utilities, all necessary water wells, and all modifications and additions to and replacements of each, to be constructed, operated or installed on the Reservation.

N. "Regional Board" shall mean the California Regional Water Quality Control Board, San Diego Region.

O. "Reservation" shall mean the Campo Indian Reservation.

P. "San Diego APCD" shall mean the San Diego County Air Pollution Control District.

Q. "Solid waste" shall mean all putrescible and nonputrescible solid, semisolid, and liquid waste, including, but not limited to, garbage, trash, refuse, paper, rubbish, ashes, industrial waste, construction and demolition waste, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes; other discarded solid, liquid, and semisolid wastes from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, or other discarded gaseous material resulting from industrial, commercial, mining, or agricultural operations, or community activities; and not including solid or dissolved material in domestic sewage, solid or dissolved material in irrigation return flows, or industrial discharges that are point sources subject to permits under 33 U.S.C. & 1342, sources, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. & 2011 *et seq.*, and not including hazardous material, as defined hereinabove.

R. "Solid Waste Code" shall mean the Campo Band of Mission Indians Solid Waste Management Code of 1990.

S. "Solid Waste Facilities" shall mean the facilities described in Appendix A.

T. "Solid Waste Regulations" shall mean the Solid Waste Regulations promulgated by CEPA pursuant to the Solid Waste Code.

U. "State Agencies" shall mean Cal/EPA, the ARB, San Diego APCD, CIWMB, SWRCB, and the Regional Board or any of them individually or in combination.

V. "SWRCB" shall mean the State Water Resources Control Board.

W. "Technical Assistance Memorandum of Agreement" or "TAMA" shall mean an agreement between CEPA and a State Agency concerning assistance from and the involvement of a State Agency in the design, establishment, and implementation of a permit system as further provided in Section X of this Agreement and in agreements executed pursuant to Chapter 805 of the California Statutes of 1991.

Section II. Purpose and Scope of Agreement

A. This Agreement is entered into for the following purposes:

(1) Promptly and effectively to regulate Solid Waste Facilities on the Reservation, the operation and regulation of which facilities are of great concern to both CEPA and the State Agencies due to the potential impact on the public health, safety, and welfare.

(2) To establish a system of consultation and cooperation between CEPA and the State Agencies comprehensively to regulate Solid Waste Facilities on the Reservation.

(3) To share technical and professional expertise among CEPA and the State Agencies.

(4) To establish and maintain effective communication between CEPA and the State Agencies regarding the regulation of Solid Waste Facilities on the Reservation.

(5) To minimize the potential for jurisdictional disputes between CEPA and the State Agencies.

(6) To meet the requirements of Chapter 805.

B. This Agreement encompasses the regulation on the Reservation of the Solid Waste Facilities described in Appendix A.

C. The parties to this Agreement expressly recognize that the parties are each empowered to enforce their respective laws, rules, and regulations against persons within their respective jurisdictions.

Section III. Jurisdiction

Nothing in this Agreement shall limit or expand, or be construed to limit or expand, the jurisdiction of the State Agencies, the Band or CEPA with respect to the Solid Waste Facilities, including but not limited to the enforcement powers and procedures available to the State or the Band with respect to those facilities to the extent not preempted by federal law, including but not limited to powers and procedures contained in state or tribal statutes or regulations.

Section IV. Functional Equivalency

A. The Solid Waste Facilities will be regulated in accordance with the design, permitting, construction, siting, operation, monitoring, inspection, closure, postclosure, liability, enforcement, and other regulatory provisions applicable to a Solid Waste Facility, or which relate to any environmental consequences that may be caused by facility construction or operation, which provisions are set forth in the Solid Waste Code and Solid Waste Regulations and as such Code a.

Regulations may be amended from time to time after the execution of this Agreement. The Solid Waste Code and Solid Waste Regulations are incorporated by reference herein and will have the same force and effect with respect to this Agreement as though fully set forth. In the event definitions of terms in the Solid Waste Code and Solid Waste Regulations conflict with those set forth in Section I of this Agreement, the definitions of this Agreement shall control for purposes of interpreting this Agreement.

B. The State Agencies have determined that the Solid Waste Code and Solid Waste Regulations are functionally equivalent to provisions of the following State laws and regulations which are germane to the type of Solid Waste Facility proposed for construction and operation on the Reservation as set forth in Appendix A:

(1) Article 4 (commencing with Section 13260) of Chapter 4, Chapter 5 (commencing with Section 13300, and Chapter 5.5 (commencing with Section 13370) of Division 7 of the Water Code.

(2) Chapter 3 (commencing with Section 41700), Chapter 4 (commencing with Section 42300), and Chapter 5 (commencing with Section 42700), Part 4, and Part 6 (commencing with Section 44300) of Division 26 of the State Health and Safety Code.

(3) Division 30 of the State Public Resources Code.

(4) All germane regulations adopted pursuant to the statutes specified in this section.

C. The Cal/EPA has determined that the Solid Waste Code and Solid Waste Regulations are functionally equivalent to other provisions of state environmental, public health, and safety laws and regulations germane to the Solid Waste Facilities, including applicable provisions contained in the following: Article 10.5 (Management of Lead Acid Batteries) (commencing with Section 25215), Article 10.6 (Management of Small Household Batteries) (commencing with Section 25216), and Article 13 (Management of Used Oil) (commencing with Section 25250) of Chapter 6.5 of Division 20 of the Health and Safety Code.

D. CEPA will incorporate standards and requirements germane to the protection of the environment, public health, and safety and consistent with the State laws and regulations listed in Paragraphs B and C, as such provisions may be amended from time to time if those standards and requirements meet both of the following requirements:

(1) The standards and requirements do not discriminate against a tribe which has executed a cooperative agreement, or a

lessee or contractor of such a tribe, and are applicable to, are not more stringent than, other State standards and requirements applicable to similar or analogous facilities or operations outside the Reservation.

(2) Adequate notice and opportunity for comment on the incorporation of new and amended standards or requirements is provided to CEPA to facilitate any physical or operational changes in the facility in accordance with state law.

E. Except for emergency regulations, notice of any proposed amendments of the Solid Waste Code or Solid Waste Regulations shall be given to the State Agencies at least forty-five (45) days prior to their adoption. CEPA shall provide public notice of such proposed adoption, in accordance with applicable tribal laws and regulations. Except for emergency regulations, such notice shall normally include a 30-day period for public comment. The State Agencies shall determine whether such amendments affect their prior determination that the Solid Waste Code and Solid Waste Regulations are functionally equivalent to applicable state regulations. If a State Agency does not respond within such forty-five (45) day period to CEPA's notice, such proposed amendments shall be deemed not to affect the State Agency's determination that the Solid Waste Code and Solid Waste Regulations are functionally equivalent as provided above.

F. CalEPA or CEPA, as appropriate, shall provide at least 30 days public notice of proposed amendments to the Cooperative Agreement.

G. To facilitate participation by CEPA in rulemaking proceedings, and otherwise to review matters concerning the operation of this Agreement, the State Agencies shall periodically meet with CEPA informally to review regulatory and technical trends, upcoming regulatory or legislative proceedings, operation of the Solid Waste Facilities, and other relevant matters.

Section V. Completeness of Application

CEPA shall transmit a copy of any application for a Solid Waste Facility Permit or any applicable federal permit to each of the State Agencies. CEPA and the State Agencies may mutually agree in writing that certain portions of an application or certain types of applications which are not germane to regulations established and enforced by that agency, need not be so transmitted. The State Agencies shall provide detailed comments regarding the completeness of the application within thirty (30) days after receiving any copies of applications filed for tribal and applicable federal permits with respect to the deficiencies, if any, of the application with respect to the

state standards identified in Section III, Paragraphs B and C. The failure of any of the State Agencies to provide those comments within that period shall be deemed a finding of completeness of the respective applications.

Section VI. Permit Review

A. CEPA shall transmit a copy of a draft of any CEPA Permit and any applicable federal permit to each of the State Agencies prior to final issuance of the permit. CEPA and the State Agencies may mutually agree in writing that certain portions of a permit or certain types of permit applications which are not germane to regulations established and enforced by that agency need not be so transmitted. The State Agencies shall review any draft tribal permit and any applicable federal permit to determine, based on existing policies, practices, and precedents, whether it contains conditions sufficient to:

(1) Meet the germane functionally equivalent standards as provided in Section IV of this Agreement.

(2) Provide not less than the level of protection for public health, safety, and the environment that would have been achieved if that State Agency had issued the permit.

(3) Implement all feasible mitigation measures. For purposes of this paragraph, "feasible" has the same meaning as in California Public Resources Code Section 21001, 21002.1, and 21004, and any regulations adopted pursuant thereto.

B. The State Agencies shall provide comments within seventy-five (75) days of receipt of the draft permit. If a State Agency does not provide such comments, the permit conditions shall be deemed sufficient to meet the conditions of Subparagraphs (1), (2), and (3) of Paragraph A of this Section.

C. Permits issued by CEPA shall meet the conditions of Subparagraphs (1), (2), and (3) of Paragraph A of this Section.

D. Within ten days of issuance of a final CEPA Permit or applicable federal permit, a copy of that permit shall be provided to Cal/EPA.

Section VII. Enforcement

A. Compliance with the standards established in the Solid Waste Regulations will be enforced by CEPA through various means, including but not limited to inspections, notices, and orders. At least ten days before issuing an enforcement order which is not for an emergency, within five days after issuing an enforcement order for an emergency, or within fifteen days after discovering a violation of a Solid Waste Regulation, or term or

condition of a CEPA or applicable federal permit for the Solid Waste Facility, which is likely to result in an enforcement action, CEPA will advise the appropriate State Agency of the violation or proposed action.

B. To the extent authorized by law, the State may exercise its enforcement powers over the Solid Waste Facilities, subject to all of the following requirements:

(1) A violation or threatened violation of any CEPA standard or requirement or any condition set forth in this Agreement or any permit for the facility has occurred or is occurring. For purposes of this paragraph, "threatened violation" means a condition creating a substantial probability of harm, when the probability and potential extent of harm make it reasonably necessary to take immediate action to prevent, reduce, or mitigate damages to persons, property, or natural resources.

(2) The violation or violations have been brought to the attention of CEPA through written notice from Cal/EPA. The notice shall identify the specific violation or threatened violation which is occurring or has occurred and a specific corrective or enforcement action or range of actions, including sufficient penalties. The notice shall include a specific and reasonable schedule in which to take appropriate corrective or enforcement action.

(3) CEPA, after receiving such notice, has failed to take the action or actions or to take other reasonable action to abate or correct the violation or threatened violation within a reasonable time.

C. Nothing in this Section provides or shall be interpreted to provide any jurisdiction or regulatory authority to the State Agencies or CEPA that the State Agencies or CEPA would not have in the absence of this Agreement. CEPA does not, for itself or on behalf of the Band, concede jurisdiction or waive any defenses it may have to assertion of jurisdiction by the State Agencies or the State of jurisdiction. The State Agencies do not concede jurisdiction or waive any defenses they may have to assertion of jurisdiction by CEPA or the Band.

Section VIII. Disputes

A. CEPA, Cal/EPA, and appropriate State Agencies agree to meet and confer if a dispute arises between the parties regarding the performance of any party under the terms of this Agreement.

B. A State Agency unsatisfied with the resolution of a dispute may, at its option, use the procedures for adjudication

set forth in the Solid Waste Code and Solid Waste Regulations.

C. After having in good faith met and conferred with CEPA, the State may, to the extent authorized by law, file an appropriate civil action in a court of competent jurisdiction to enforce the terms of this Agreement as a contract. Such action shall not limit the availability to either party of any remedy at law or in equity otherwise available.

Section IX: Sovereign Immunity

A. CEPA Waiver.

1. CEPA hereby waives any right of sovereign immunity it may enjoy to the extent necessary to allow, and for the express and only purpose of allowing, the State to exercise and enforce its rights under the terms of this Agreement, and CEPA consents to suit by the State for any and all such controversies and claims in any court otherwise having jurisdiction over the subject matter. The State acknowledges that the provisions of this Subsection constitute a partial waiver of CEPA's immunity from suit. The waiver of sovereign immunity contained herein shall be effective only to the extent necessary for the State to enforce its rights and remedies under this Agreement, and it is expressly understood and agreed by the parties that the waiver of sovereign immunity contained herein shall extend only to the State. CEPA expressly refuses to waive its sovereign immunity as to any action brought by any party other than the State, including but not limited to actions by third-party beneficiaries, if any, of this Agreement.

2. The parties understand and agree that nothing in this Agreement is intended, nor shall it be construed, to waive the sovereign immunity of the Band or to create a liability or obligation on the part of the Band. In addition, the parties understand and agree that CEPA may not:

- a. Expressly or impliedly enter into agreements of any kind on behalf of the Band.
- b. Pledge the credit of the Band.
- c. Dispose of, pledge, or otherwise encumber real or personal property of the Band.
- d. Secure loans or incur indebtedness requiring any obligation, contribution, or guarantee on the part of the Band.
- e. Waive any right of, or release any obligation owed to, the Band.

f. Waive any other rights, privileges, or immunities of the Band.

3. CEPA appoints Kevin Gover, Esq., with an office on the date hereof at Gover, Stetson & Williams, P.C., 2501 Rio Grande Boulevard, N.W., Albuquerque, New Mexico 87104 ("CEPA's Process Agent") as its agent to receive, on behalf of it and its property, service and copies of the summons of the complaint and any other process that may be served in any action or proceeding. Such service may be made by mailing or delivering a copy of such process to CEPA in care of CEPA's Process Agent at the above address. CEPA shall notify the State of any substitution of or replacement for CEPA's Process Agent in writing and in accordance with this Agreement.

B. State Waiver.

1. The State hereby waives any right of sovereign immunity it may enjoy to the extent necessary to allow, and for the express and only purpose of allowing, CEPA to exercise and enforce its rights under the terms of this Agreement, and the State consents to suit by CEPA for any and all such controversies and claims in any court otherwise having jurisdiction over the subject matter. CEPA acknowledges that the provisions of this Subsection constitute a partial waiver of the State's immunity from suit. The waiver of sovereign immunity contained herein shall be effective only to the extent necessary for CEPA to enforce its rights and remedies under this Agreement, and it is expressly understood and agreed by all parties that the waiver of sovereign immunity contained herein shall extend only to CEPA.

(2) The State appoints the Assistant Secretary for Law Enforcement and Counsel, with an office on the date hereof at the California Environmental Protection Agency, 555 Capitol Mall, Sacramento, California 95814 ("the State's Process Agent") as its agent to receive, on behalf of it and its property, service and copies of the summons of the complaint and any other process that may be served in any action or proceeding. Such service may be made by mailing or delivering a copy of such process to the State in care of the State's Process Agent at the State's Process Agent's above address. The State shall notify CEPA of any substitution of or replacement for the State's Process Agent. Such notice shall be in writing and shall be given in accordance with this Agreement.

Section X. Data; Time Schedules; Access

A. CEPA and the State Agencies shall provide each other and appropriate State Agencies with all monitoring data collected with respect to the Solid Waste Facility, inspection reports, correspondence, emission source testing data, draft and final permits, notices of violations, consent orders, abatement order:

compliance schedules, and other public documents relating to the regulation of the Solid Waste Facilities. To the extent authorized by Chapter 805, the State Agencies shall not release to any person information received pursuant to this Agreement and that is privileged, proprietary, or trade secret information.

B. The parties to this Agreement may mutually agree in writing to modify time periods for actions required by this Agreement or Chapter 805, except the time periods provided for public notice, review, and comment by Chapter 805 shall not be eliminated or reduced.

C. CEPA shall provide for reasonable access by State Agency personnel to the Reservation to assist with permit application review, inspection, and monitoring of the operation of the Solid Waste Facilities. Any State Agency wishing to enter the Reservation shall first provide notice to CEPA in writing or by telephone. Only State Agency employees or other governmental employees or contractors authorized by a State Agency shall be permitted to enter the Reservation. CEPA may require that such personnel be accompanied by a designated representative.

D. The State Agencies shall also provide for reasonable access for purposes of permit application review and inspection, to the extent the State Agencies can provide that access, by CEPA personnel to transfer stations or similar facilities located outside of the Reservation and handling waste to be transferred to the Reservation. Any permit issued or approved by a State Agency for a solid waste facility, from which solid waste is or may be transferred to the Reservation, shall contain a requirement to allow reasonable access by CEPA to such facilities for the same purposes as State Agency personnel may enter the Reservation as provided by Paragraph C of this Section.

Section XI. Technical Assistance

A. CEPA shall be eligible for technical assistance, to the extent feasible, from the State Agencies for the design, establishment, and implementation of a permit system, cooperative monitoring programs, tribal enforcement system, and implementation of any other regulatory requirement. State Agencies may provide such assistance in accordance with this Agreement as specifically agreed to in Technical Assistance Memoranda of Agreement ("TAMA").

B. In consideration of the services to be provided by the State Agencies, CEPA shall pay the State Agencies for the above services at the rate mutually agreed to in a TAMA. Expenses for necessary equipment, materials, and travel for staff of the State Agencies shall be reimbursed by CEPA. Payment for services and reimbursement for expenses shall not exceed the amount as provided in the applicable TAMA in any given year. CEPA shall

not be obligated for any payments or reimbursements beyond such amount except as mutually agreed in writing in advance.

Section XII. Term of Agreement

This Agreement shall remain in effect until terminated by CEPA or the State. No termination of this Agreement shall occur unless the terminating party has established, after following the dispute resolution procedures established herein, that one of the parties or a State Agency has breached a material condition of this Agreement.

Section XIII. Delay or Omission; Remedies

Except as expressly provided in this Agreement, no delay or omission to exercise any right, power, or remedy accruing under this Agreement shall impair such right, power, or remedy, nor shall it be construed to be a waiver of or acquiescence in a breach of or default under this Agreement. The parties specifically and affirmatively agree not to construe the conduct, statements, delay, or omission of any other party as altering in any way the parties' agreements as defined in this Agreement. Any waiver, permit, or approval of any breach of or default under this Agreement must be in writing, and, because the language of this Section was negotiated and intended by the parties to be binding and is not a mere recital, the parties hereby agree that they will not raise waiver or estoppel as affirmative defenses as to limit or negate the clear language and intent of this Agreement. All remedies, either under this Agreement, by law, or otherwise afforded to any party shall be cumulative, not alternative.

Section XIV. Notice

Any notices, payments, demands, or communications required or permitted under this Agreement shall be in writing and shall be deemed to have sufficiently been given if personally served on or delivered by commercial courier, or sent certified or registered mail, return receipt requested and postage prepaid, and addressed to the other party at the addresses indicated on the first page of this Agreement, or at such other address as any party shall hereafter furnish the other in writing. If mailed, such notice shall be deemed to have been made on the third (3rd) day after posting, or on the date actually received, whichever occurs first. If sent by a commercial courier that guarantees next day delivery, such notice shall be deemed to have been made on the first (1st) business day after delivery to the courier, with fee paid and next day delivery designated.

Section XV. Severability

If any provision in this Agreement shall be held invalid

unenforceable by a court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision of this Agreement, and the affected parties shall negotiate in good faith to amend this Agreement to effectuate fully their intent as embodied in this Agreement.

Section XVI. Entire Agreement; Modification

There is no agreement or promise on the part of any party to do or omit to do any act or thing not herein mentioned. All prior agreements between or among the parties, in any combination, whether oral or written, confidential or public, express or implied, are hereby expressly superseded and replaced in full by this Agreement, which constitutes the entire agreement between the parties and may not be effectively amended, changed, modified, or altered without the written consent of both parties. Notwithstanding the preceding sentence, TAMA may be amended upon mutual agreement of CEPA and one or more of the State Agencies.

Section XVII. Headings

The headings to the various Sections of this Agreement are inserted only for convenience of reference and are not intended, nor shall they be construed, to modify, define, limit, or expand the intent of the parties.

Section XVIII. Consents; Reasonableness; Good Faith

The parties agree to cooperate fully with each other and to act reasonably, in good faith, and in a timely manner in all matters hereunder so that each of them may obtain the benefits to which they are entitled hereunder and for which they have negotiated. All parties agree to negotiate in good faith and without delay as to all matters requiring negotiation. No party shall unreasonably deny, withhold, or delay any consent or approval required or contemplated for any action or transaction proposed to be taken or made hereunder, except as otherwise provided herein.

Section XIX. Gender; Number

Any noun or pronoun used herein shall refer to any gender and to any number as the context requires or permits.

IN WITNESS WHEREOF, this Agreement is executed on behalf of the Band by CEPA, acting by and through its Chairman pursuant to Resolution No. _____ authorizing such execution and by the State of California, acting by and through the Secretary of

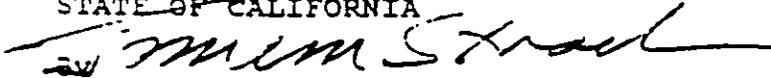
Cal/EPA pursuant to authority provided by Chapter 805.

CAMPO ENVIRONMENTAL PROTECTION AGENCY

BY 
Michael Connoily, Chairman

Dated: 12/10/92

STATE OF CALIFORNIA



James Strock, Secretary, California
Environmental Protection Agency

Dated: 12/10/92

C:\local\CAMPO\COOP\chpov25

APPENDIX A

Solid Waste Facilities Description

The facility is an integrated solid waste management project which will include a sanitary landfill and a materials recovery (recycling) facility.

The facilities and ancillary facilities are proposed to be located on a 600-acre site within a 1,150 lease area in the Southeastern section of the reservation (Proposed Site). The landfill portion of the proposed project would require a total of approximately 400 acres. Two other sites have been identified as possible alternatives. They are a 210 acre canyon site in the central portion of the reservation (Site 1), and a 150-acre canyon site in the southwestern corner of the reservation (Site 2).

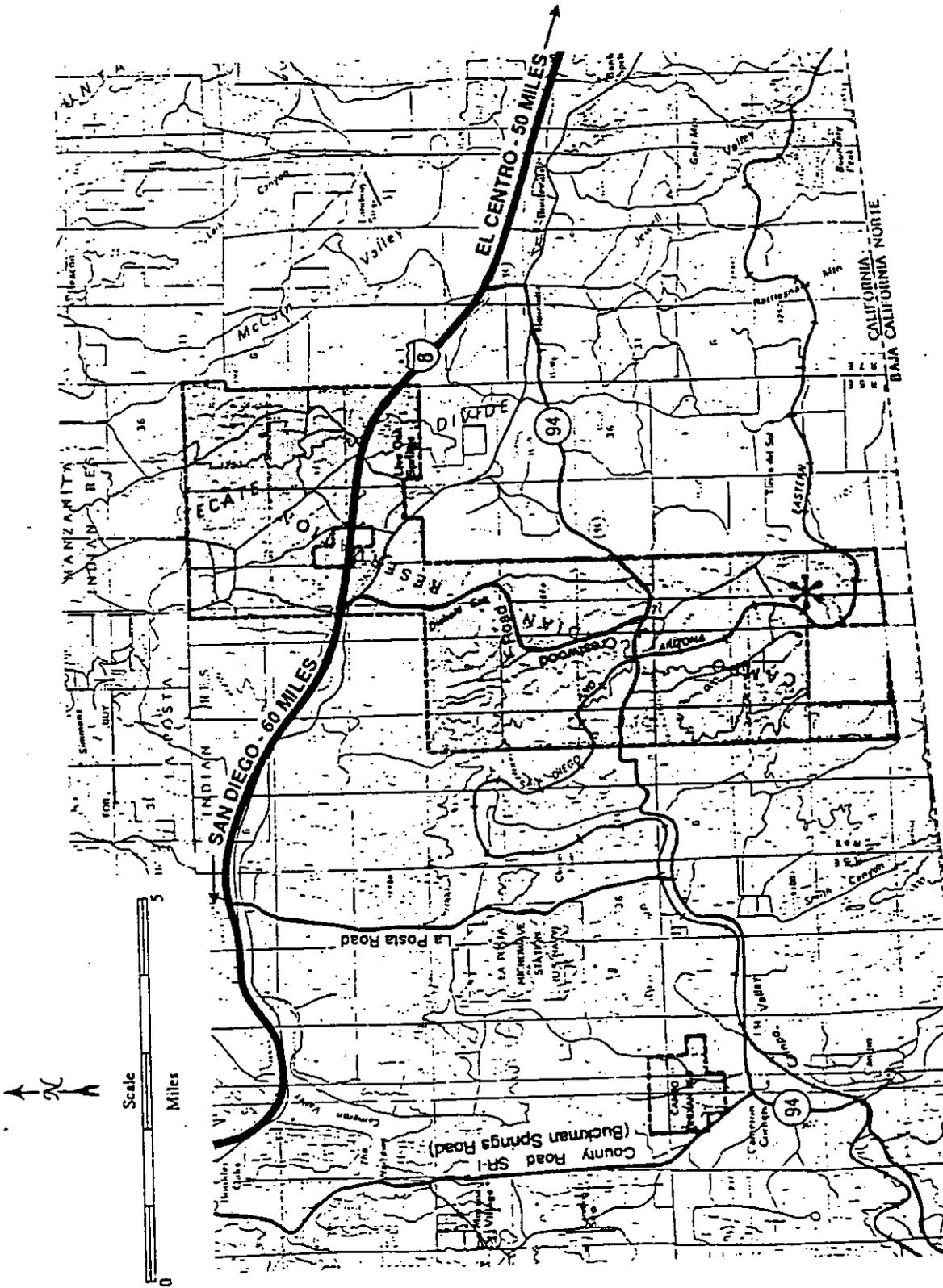
The proposed Solid Waste Facility is classified as a Class III landfill pursuant to the CEPA Solid Waste Management Regulations (Title V, Section 505.23) and the California Code of Regulations ("CCR", Title 23, Division 3, Chapter 15). Wastewater sewage or water treatment sludge may be accepted if it meets certain standards. Infectious waste, asbestos, petroleum or its byproducts, polychlorinated biphenyls, and other hazardous or toxic wastes would not be accepted for disposal treatment or recycling.

The capacity of the Proposed Site and Site 1 is estimated to be 40 million cubic yards (or about 28 million tons). Alternative Site 2 has a lifetime capacity of approximately 45 million cubic yards (or 31.5 million tons).

An engineered double liner system and leachate collection system would underlie the disposal area. Landfill gas control would be accomplished by drilling gas monitoring wells and conducting monthly gas detection checks. When the gas reaches extractable levels, extraction wells would be operated to collect the landfill gas (primarily carbon dioxide and methane) from the landfill. The gas would be flared on-site using multiple flares constructed as the cell development proceeds.

The Proposed Site and Site 1 would be designed to accept waste either by rail or truck. Site 2 would probably be limited to truck access due to rail line construction limitations.

The proposed Materials Recovery Facility (MRF) would house the recycling activities and would provide temporary storage for recovered materials prior to shipment to markets. The MRF would be located adjacent to the landfill and would occupy approximately 10 acres.

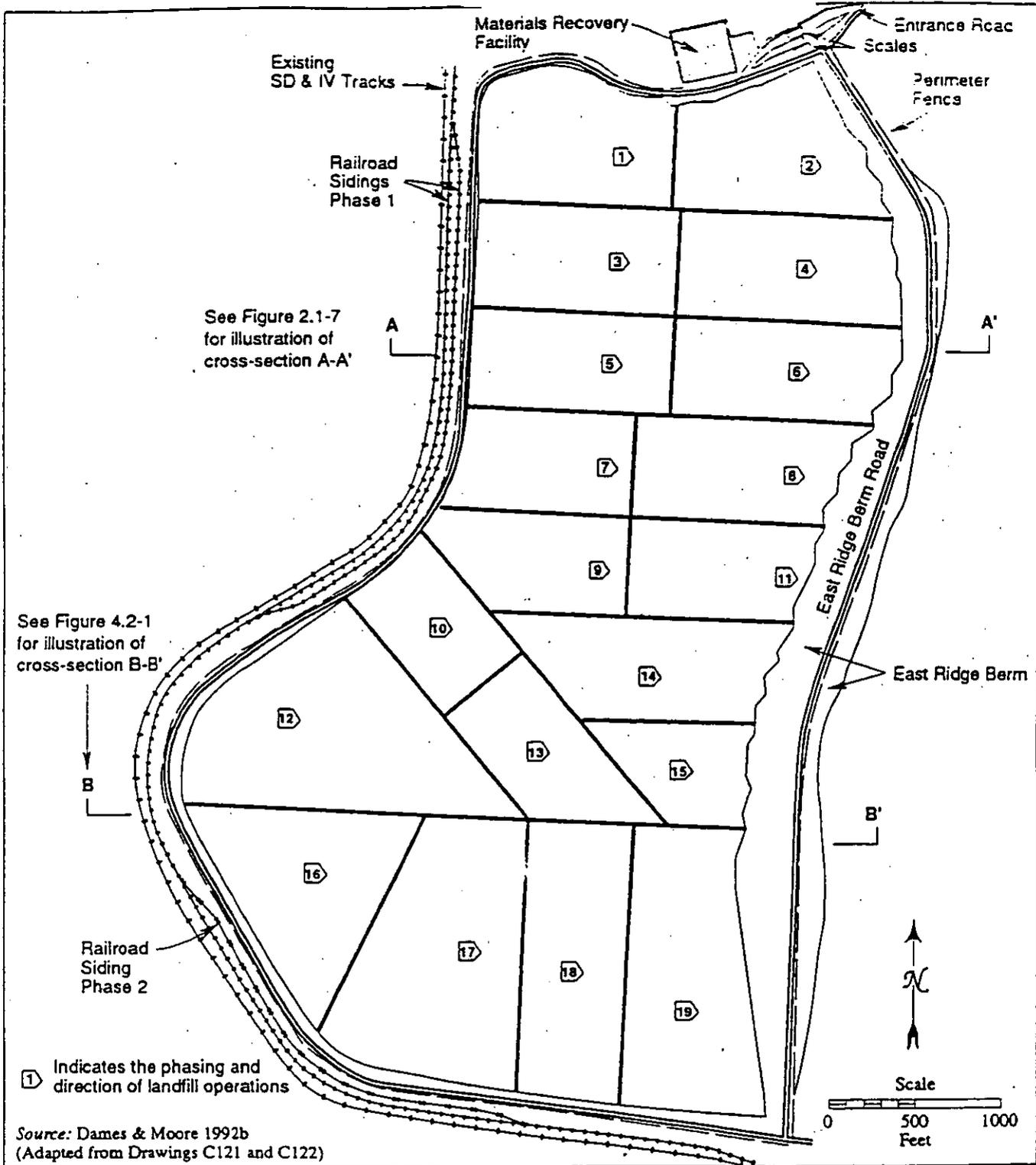


* Proposed Project Site

Base Map: USGS, El Cajon 1:100,000-scale topographic map, 1979.

CAMPO INDIAN RESERVATION AND VICINITY

ATTACHMENT 4

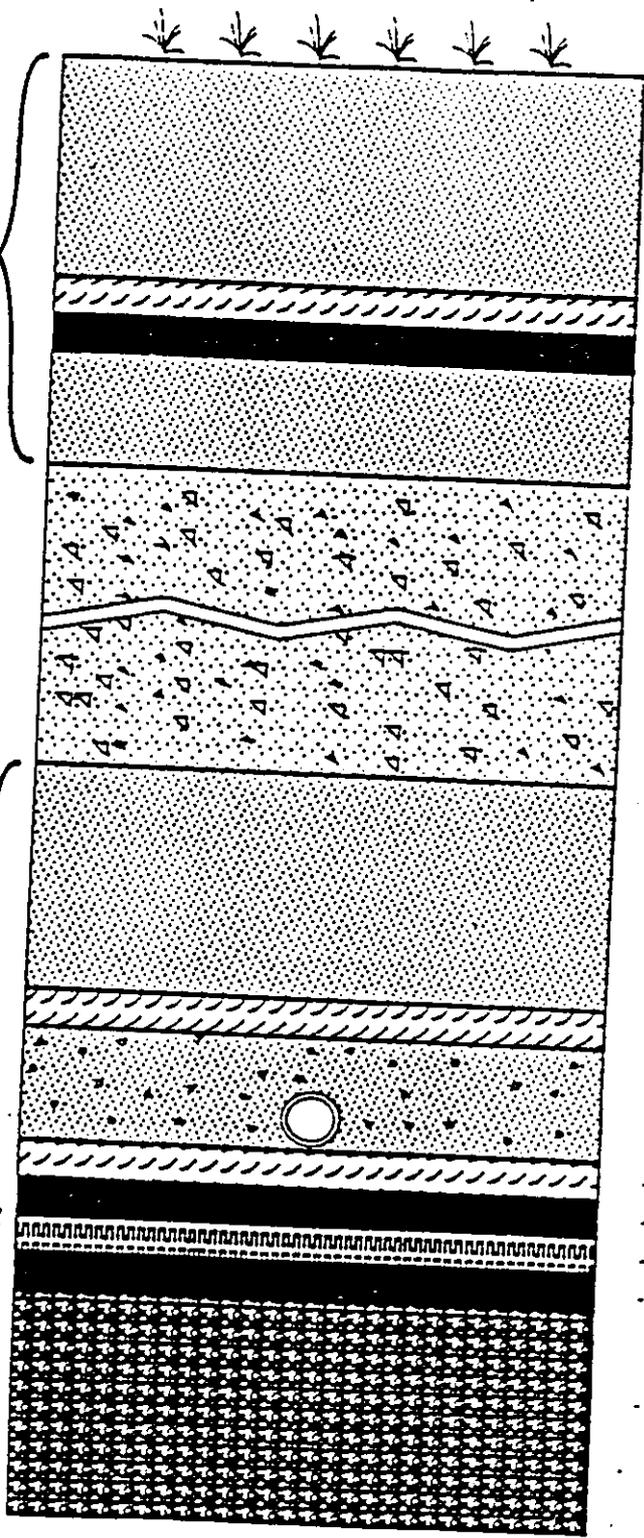


LANDFILL EXCAVATION PLAN

FINAL COVER

PRIMARY LINER SYSTEM

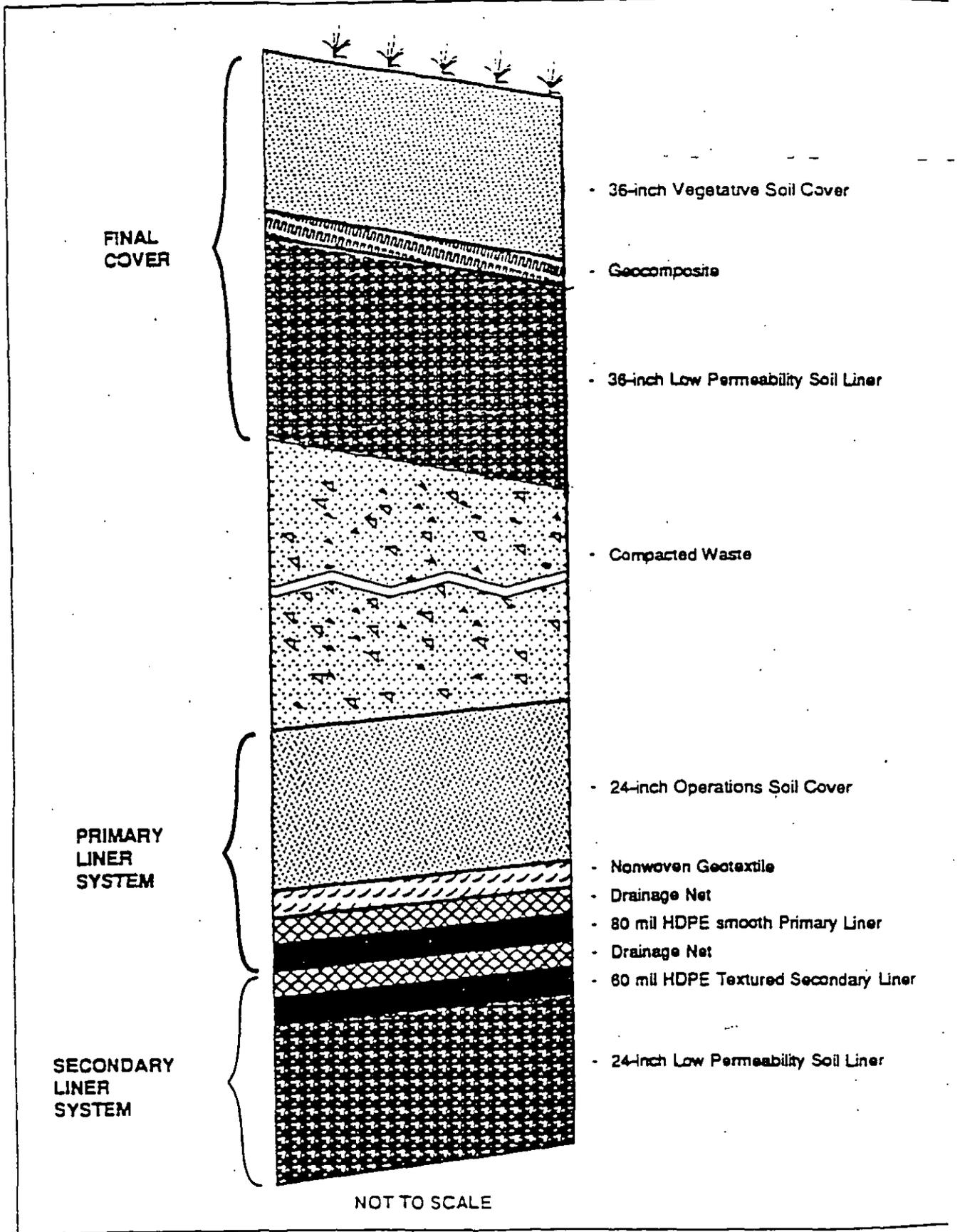
SECONDARY LINER SYSTEM



- 24-inch Vegetative Soil Cover
- Filter Fabric
- 40 mil VLDPE Liner
- 24-inch Foundation Layer
- Compacted Waste (Many feet thick)
- 24-inch Operations Soil Cover
- Nonwoven Geotextile
- 12-inch Gravel Drainage Layer and Collection Pipes of the LCRS
- Nonwoven Geotextile
- 60 mil Textured HDPE Primary Liner
- Geocomposite Leak Detection Layer
- 60 mil Textured HDPE Secondary Liner
- 24-inch Low Permeability Soil Liner

NOT TO SCALE

TYPICAL PROFILE OF LANDFILL CONTAINMENT SYSTEM



TYPICAL PROFILE OF LANDFILL
CONTAINMENT SYSTEM ON SIDE SLOPES



February 8, 1993

Mr. Paul Helliker
 Special Assistant to the Secretary
 California Environmental Protection Agency
 555 Capitol Mall, Suite 235
 Sacramento, California 95814

Dear Mr. Helliker:

I am in receipt of a request for an extension of time for conclusion of the review by State Agencies pursuant to AB 240 and the Cooperative Agreement of the Campo Environmental Protection Agency (CEPA) Tentative Authority to Construct permit. The request was made by the staff of the California Integrated Waste Management Board (CIWMB).

As you know, the Cooperative Agreement provides that State Agency review of a draft tribal permit is to conclude within 75 days. (Cooperative Agreement section VI). In correspondence dated January 11, 1993, CEPA previously agreed to an 11 day extension of the deadline from February 15 to February 26, 1993. A copy of my January 11 letter is attached.

The pending request is based upon an expressed desire to provide sufficient time to work cooperatively with CEPA and its staff to resolve technical issues which arise in the review of the proposed project. To that end, CEPA is willing to agree to a further extension of the review period to March 31, 1993. As with the previous extension, CEPA expects and understands that all State Agencies will be bound by the extended time limit.

We note that the normal time for review by the CIWMB of a Solid Waste Facility Permit is 60 days. With the second extension, the time for review of the Campo EPA permit will come to 111 days. Therefore, CEPA will probably not be able to agree to a further extension beyond March 31, 1993.

We understand that a CIWMB Permit and Enforcement Committee meeting was tentatively scheduled for February 19 and that the full board was going to review the matter at its February 25 meeting. This will confirm CEPA's understanding that

Mr. Paul Helliker
February 8, 1993
Page Two

the Committee consideration of the draft permit will be postponed until mid-March and that the matter will be taken up by the full Board on March 31 rather than February 25, 1993.

Sincerely yours,



Michael Connolly
Chairman,
CEPA Board of Commissioners

cc: Rob Saroyan, CIWMB
Robert Conheim, CIWMB
Martha Vasquez, CIWMB
Phil Morales, CIWMB
Bernard Vlach, CIWMB
Walter Pettit, SWRCB
Karen O'Haire, SWRCB
James Giannopoulos, SWRCB
Rick Boylan, SWRCB
Mike Lake, APCD
Mike Kenny, ARB
Ronald Crooks, ARB

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

8800 Cal Center Drive
Sacramento, California 95826

Mr. Michael Connolly, Director
Campo Environmental Protection Agency
1779 Truck Trail
Campo, CA 91906

*Hand delivered
February 2, 1993*

Subject: Staff Comments on Tentative Authority to Construct,
Campo Solid Waste Facility, December 2, 1992

Dear Mr. Connolly:

California Integrated Waste Management Board staff has completed its review of the permit and application package you provided on December 7, 1992; detailed comments are included as an attachment to this letter. Our review and comments are required by Section VI, Permit Review, of the Cooperative Agreement Between the Campo Environmental Protection Agency and the State of California (agreement).

The purpose of the staff's review is to provide assurance to our Board that the permit proposed by your agency is consistent with the requirements of the agreement. The basis for the review is the requirement that the proposed permit provide not less than the level of protection for public health, safety and the environment that would have been achieved if the permit had been issued by our Board. Specifically, this means that the permit and permit application must include the level of detail that would be necessary to identify all of the potential significant impacts to the public, and provide for the mitigation of those potential impacts.

At this time, staff cannot assure the Board that the proposed permit is consistent with the requirements of the agreement. Staff requests that you respond to each of our comments and provide the information that will help our Board to meet its obligation according to the agreement. Some of the comments are minor, and it will be easy for you to respond to them, while others will require that more empirical information be provided.

In addition, according to existing policies, practices and precedents, our Board must be assured that any comments by other state agencies, such as the State Water Resources Control Board, and the San Diego Air Pollution control district, have also been satisfactorily addressed.

As you know, our Board is scheduled to consider whether or not your proposal is consistent with the agreement, at its meeting in Palm Springs on February 25-26, 1993. That date is also the deadline allowed for review and comment under the terms of the agreement. Because it is unlikely that you will be able to respond to all of the state's comments by that time, the staff's

Mr. Connolly
Page 2

recommendation to the Board will be that they find the permit inconsistent with the agreement.

Staff would prefer to bring to the Board a recommendation of consistency with the agreement. It would be in the best interests of both parties if the deadline for our Board's review and comment could be postponed until after our staff was in receipt of the requested information. Staff requests that you withdraw your permit proposal at this time until these matters can be resolved. As an alternative you should consider extending the review period until such a time as all of the requested information can be provided.

Staff appreciates the complexity of the permitting process that you are administering. Staff's recommendation in no way reflects on the professionalism of CEPA, but rather is a recognition of the reality that complex projects don't easily accommodate artificial deadlines.

Thank you very much for your cooperation throughout this process. I am hopeful that you will be able to help our Board to meet its obligation under the agreement. Please call me at 916/255-2431 or Bernard R. Vlach at 916/255-2460 if you have any questions, or if I can be of assistance.

Sincerely,

Martha Vázquez
Deputy Director
Permitting and Compliance Division

Attachment

CAMPO SOLID WASTE FACILITY REVIEW COMMENTS (CIWMB)

A. Application Form (SF 0001 6/92)

1. The application form should be accepted by the Campo Environmental Protection Agency (CEPA).
2. The facility size stated on the application is 400 acres. 400 acres is the actual area to be filled. The application should include the acreage for entire facility which is 600 acres.
3. The application states the daily peak tonnage is 4500. The permit and environmental document state 3000 tons per day is the peak.
4. Provide the legal description and address of the facility.
5. The waste types listed on the application do not include designated waste. The applicant discusses the acceptance of designated waste in Addendum 1, page 2, number 4. The applicant states the following:

1. Certain wastes, which are not hazardous waste but regarded as designated waste may be accepted at the Campo landfill after it is demonstrated that the constituents of the designated waste present a lower risk to the environment than indicated by the waste classification and that the co-disposal of this waste shall not render the designated waste hazardous (V CTR Section 505.13 (b)).
2. Documentation regarding designated waste that may be accepted at the Campo Landfill will be submitted to CEPA for approval as the particular types of waste are considered for disposal.

The proposed sanitary landfill as described in the Final Environmental Impact Statement is a Class III solid waste disposal facility. The Campo Band of Mission Indians Code of Tribal Regulations (V CTR) Section 505.13 (a) states that "solid waste that is not designated waste shall be discharged at a Class III disposal facility" and V CTR Section 505.12 states that "designated waste shall be discharged only at class II solid waste facilities that comply with the requirements of these regulations and that have been approved by CEPA for the particular kind of waste being discharged. Since this facility is a Class III facility, no designated waste shall be accepted at this facility.

6. Special solid waste is checked on the application form. Volume 2, page 6 states that special solid waste is not planned to be accepted at this facility. This inconsistency

should be resolved.

7. The application should identify the owner of the land and include the owners signature.

B. The following comments address the information required in a Report of Disposal Site Information (RDSI) (permit application):

1. The average daily throughput should be identified.
2. The average load capacity the facility will receive on a yearly basis over the next five years is not identified.
3. Volume 2, page 2 states each cell of the landfill will have an area of 20-30 acres. The permit states each cell will be "approximately" 18-20 acres. Please correct this discrepancy.
4. Typical daily operations are proposed in Volume 2, page 3 of the RDSI. The discussion of daily operations needs to be expanded.
5. Hours of operation for the landfill are not stated in the documents.
6. The only backup equipment listed is a water truck (Volume 2, page 4). No plans for standby equipment availability is discussed.
7. A discussion of sanitary facilities for employees should be included in the RDSI.
8. The RDSI needs to include a section that discusses the hazardous waste screening program. The screening program should consist of the following activities: inspection of random incoming loads; regular visual inspection of the wastes deposited at the facility; training of facility personnel in hazardous waste recognition and proper hazardous waste handling procedures; reporting incidents of unlawful disposal to specific agencies (the names and number should be stated); and installation of signs at the facility entry way indicating that no hazardous wastes may be accepted.

Describe storage and handling of hazardous waste identified in the screening program; give maximum storage time prior to removal and the isolation/storage location.

9. Describe control measures for each of the following: noise, odors, litter, dust, insects, rodents, and fire.
10. If salvaging, volume reduction or recycling is permitted, list the conditions to be imposed on each type of operation.

For example, list the types of goods to be salvaged, the types of salvage vehicles or equipment utilized, the location of the processing area, the location of the salvage area, and the frequency of removal of salvaged goods. Also include contingency plans for manpower and equipment availability during emergencies.

11. Provide a statement as to whether noise from site operations is likely to create health hazards to persons using the site and/or to nearby residents.
12. Include a description of the handling procedures which will be employed for sewage sludge.

C. The following comments address the Solid Waste Facility Permit to Construct for the Campo Landfill:

1. Staff suggest the word "approximately" be removed from the phrase "approximately 400 acres" on page 2 of the permit.
2. Page 4, letter "I" the date is missing in the first paragraph.
3. Page 4, letter J states "approximately 3000 tons" and "approximately 18 to 20 acre" cells. These estimates are inconsistent with the information provided by the operator on the application form and in the RDSI as stated elsewhere in this communication.
4. Page 6, letter O states that the "permittee shall not deposit more than approximately 3000 tons per day". Staff suggest the CEPA remove the word "approximately".
5. The permit does not identify the owner of the facility.
6. The permit should include a description of the entire physical plant including platforms, stationary equipment, buildings, ramps, storage area, etc.
7. The permit should specify all types of wastes will be received including special wastes (e.g. non-hazardous solid wastes which consists of...).
8. The permit should quantify the waste received per operating day. The quantity should be expressed as tons per day and provide daily average and peak loadings.
9. Include a description of the method of operation. Typical flow pattern of waste from entry to disposal/exit.
10. Resource recovery or salvaging operations conducted or planned should also be included. A statement that hazardous wastes, such as batteries or used oil, if accepted shall be handled in a manner approved by the CEPA.

11. Provide a complete description of the hazardous waste screening program, including a description of the load checking program. Such programs must be implemented to prevent and discourage disposal of hazardous wastes at solid waste facility.

The load checking program should consist of the following activities: Inspection of random in-coming loads; regular visual inspection of the waste deposited at the facility; training of facility personnel in hazardous waste recognition and proper hazardous waste handling procedures; reporting incidents of unlawful disposal to special agencies (the names and telephone numbers should be stated in the permit); installation of signs at the facility's entry way indicating that no hazardous wastes are accepted; a list of unacceptable wastes. A statement that additional measures may be required upon request of the CEPA.

12. Include the operating days and hours.
13. Include a statement that operations at the landfill must comply with all mitigation measures given in the Final Environmental Impact Statement in accordance with the National Environmental Policy Act, 42 U.S.C. §§ 4321-4370 (a) (1988).
14. A listing of monitoring requirements should be included. Records of the results of required monitoring must be maintained by the operator and provided to the CEPA at intervals specified. Some examples of monitoring requirements are:
 - A. Environmental measurements of water quality, leachate, gas, noise, dust levels, etc. shall be reported to the CEPA on a _____ basis.
 - B. Number of vehicles utilizing the site during a specified time period shall be reported to the CEPA on a _____ basis.
 - C. Area of site utilized shall be reported to the CEPA on a _____ basis (Include the location and depth of all filled areas was built).
 - D. Quantities and types of wastes received shall be reported to the CEPA on a _____ basis.
 - E. Quantities and types of good recycled and/or salvaged shall be reported to the CEPA on a _____ basis.
 - F. A log of special occurrences, i.e., fires, explosions, accidents, hazardous wastes, etc., shall be maintained and reported to the CEPA on a _____ basis.

G. Results of the hazardous waste screening program shall be reported to the CEPA on a _____ basis.

D. DRAINAGE AND EROSION CONTROL

1. Further justification is needed for the numerical value of the runoff coefficient used in the drainage calculations. It is not clear how the "C" value was chosen from Table 2, page 4/4, Binder 10.
2. The soil loss calculations provided indicate that the potential soil loss at the site is as high as 13 tons/acre/year on the top deck and 75 tons/acre/year on the slopes. Federal EPA guidelines suggest soil loss values on the order of 2 tons/acre/year. Given that the projected total disposal area is approximately 400 acres, the impact of sedimentation on the drainage controls will be significant. The soil loss values should be justified, and a description of how the drainage system will be inspected and maintained should be included in the description of the drainage system.
3. In the calculation of soil loss, a cover factor of one was used. This assumption indicates that no vegetative cover will be present. Is this the case? If so, the issue of vegetative cover should be reconsidered in view of the high potential soil loss.
4. The soil loss calculations should be divided into sections addressing specific areas within the landfill. Smaller sections characterized by similar grading, vegetation, and drainage characteristics will yield more precise results.
5. Runoff velocities for both the channelized and sheet flows should be included.
6. The slope protection and erosion control section of the closure plan does not mention revegetation, and the closure cost estimate lists costs for revegetation of only 32 of the proposed 400 acres of fill area. Revegetation or alternative methods of stabilizing the soils on the closed landfill need to be discussed.
7. The proposed slopes of the top deck are five to ten degrees. More typical top deck slopes would be three to six degrees. Is there a reason for the steeper top deck slopes, and are the steeper slopes possibly contributing to the high potential soil loss?

E. LEACHATE CONTROL

The submitted materials state in several places that, based on analyses performed using the HELP model, the generation of leachate is not expected at the proposed facility. However,

there is no description of the input parameters used or assumptions which may have been made in running the HELP model. Also, the model runs, themselves, are not included; these materials should be included.

F. LANDFILL GAS COLLECTION AND MONITORING (Volume 3A, Binder 11-A, Binder 11-B, Volume 3B)

1. Page 13, Section 3.2.10, Standards for Compliance Testing and Record Keeping - Suggest, for reasons of health and safety, that the O&M manual contain procedures for detecting combustible landfill decomposition gas (LDG) at or greater than 100 ppm as methane. All positive readings for methane should be recorded, repair of leaks should be scheduled as-soon-as possible, and a plan to minimize exposure of work personnel to LDG should be initiated. This is not a regulatory requirement, but the noted procedures are consistent with the California Integrated Waste Management Board's internal health and safety plan and would minimize the risk of exceeding regulatory requirements
2. Page 16, Section 3.3.1, General Gas Monitoring and Control Requirements - Suggest that routine colorimetric tube testing for LDG constituents be verified annually by a state certified laboratory testing of LDG collected in Suma canisters.
3. Page 29, Section 5.5, Typical Shutdown Sequence and Drawing No. LFG-8 - There is an apparent need to provide battery backup or auxiliary power source to carry out the shutdown sequence as described when a loss of power occurs. In particular, the automatic flare valve is motor operated and will not close without electrical power, the Programmable Logic Controller (PLC) will not be able to perform any output functions nor will the auto-dialer be able to function to alert the station operator without some form of standby power. (NOTE: Section 6.5.6, Shut Off Valve, indicates that "the valve is electro-hydraulically opened and spring closed" and is inconsistent with the plans and specifications which indicate no hydraulic system, (external or integral), associated with the valve operators.)
4. Section 8, Phasing - There is no apparent provision for flare capacity backup for periods of routine maintenance or emergency repairs. One possible solution would be to install an additional Phase I flare during the initial construction phase. The two smaller Phase I flares would then serve as backup for the Phase II and Phase III flares. Sufficient flare backup capacity is necessary to prevent excessive accumulation and possible discharge of LDG during extended flare down times.
5. Drawing LFG-5, Detail 7, Horizontal Slip Joint - Need to provide an additional seal detail or tolerance table to

ensure that the gap between the outside of the slipping pipe and the machined cap through which the pipe slides is sufficiently small so that gas leakage will not upset the flow distribution in the collector pipe.

6. Drawing LFG-5, Detail 8, Horizontal Condensate Drain With Slip Joint - see comment 5. In addition, there are no specifically identified locations on the plans requiring the use of this type of trap; in fact, if the gas collection laterals are installed according to the plans, there will be an inlet orifice hole every twenty feet which will allow condensate to escape from the laterals. The use of these drains should be minimized and an accurate (surveyed to fixed site control monuments both horizontally and vertically) record kept and noted on as-built drawings.
7. Drawing LFG-5, Detail 7, Gas Probe - Provide a valve and tube fitting for 1/8 to 1/4 inch I.D. plastic tubing. Detail does not show how gas monitoring wells with more than one probe will be installed; therefore, one must conclude that gas monitoring wells requiring more than one probe will be installed as separate clustered probes for each monitoring well. A single multiple probe construction detail must be approved by the proper regulatory agency prior to installation if multiple probe gas monitoring wells are constructed.

G. SLOPE STABILITY

1. Stability of Natural Soil Slopes, Volume 2, Binder 1, section 6.3
 - a. The calculated pseudostatic factor of safety against sliding of 1.03 for the cut and fill slopes along the east ridge access road is very low. A calculated factor of safety of at least 1.2 or greater would be more appropriate. If the slope in question fails, the final cover and/or the anchor trench for the liner could be adversely impacted.
 - b. The text makes references to "Lee's Method" as a basis for establishing the cumulative lateral displacement. However, neither the method itself nor the assumptions made prior to its employment are adequately explained or included in the submitted material.
2. Stability of Waste Slopes, Volume 2, Binder 1, section 6.4
 - a. Title 14 CCR, Chapter 3, Article 7.8, section 17777 requires a calculated factor of safety for the critical slope of at least 1.5 under dynamic conditions. In lieu of achieving a factor of safety of 1.5 under dynamic conditions, a more rigorous analytical method that provides a quantified estimate of the magnitude of movement may be employed. In this case, the report

shall demonstrate that the amount of movement can be accommodated without jeopardizing the integrity of the final cover or environmental control systems. The seismic factor of safety for the waste slopes during the Maximum Credible Earthquake is undetermined and appears to be not only less than 1.5 but less than 1.0.

- b. See comment 1b above (Stability of Natural Soil Slopes).
- c. The determination of only the cumulative lateral displacement at the toe does not allow the evaluation of the vertical and horizontal components of seismically induced differential movements along the slope of the landfill. Such movements may impact the integrity of the environmental control systems. More rigorous analytical methods are available and can be employed to provide this information.

H. CLOSURE AND POSTCLOSURE MAINTENANCE PLANS

- 1. Closure and postclosure maintenance plans should be separate stand-alone documents. While many of the components of the plans are included in other places in the submitted materials, the fragmentation not only makes review difficult but reduces the potential usefulness of the plans.
- 2. The descriptions under section 2.1.8 need to be elaborated upon. It is not acceptable to simply reference the drawings and specifications and state that the applicable regulations will be complied with.
- 3. It appears that many of the descriptions of the postclosure monitoring activities have been deferred to the forthcoming operations permit. This seems very awkward. Perhaps, if CEPA feels that the majority of the postclosure maintenance tasks are more appropriately operational in nature, the entire postclosure maintenance plan should be part of the operations permit rather than the permit to construct.
- 4. Erosion control (see comments above under drainage and erosion control).

I. CLOSURE AND POSTCLOSURE MAINTENANCE COST ESTIMATES

- 1. Closure cost estimates should be more detailed. Cost estimates should include costs for specific activities within the main closure activities and include itemized costs for the following:
 - a. acquisition, placement, compaction, and grading of final cover
 - b. acquisition, placement, and inspection of geosynthetic membrane

- c. construction quality assurance requirements
 - d. soil preparation, planting, fertilizing, and irrigation of vegetation
 - e. installation of any environmental monitoring or control systems or components not installed during the operational phase
 - f. drainage system installation
 - g. adding or removing security measures compatible with postclosure land use
 - h. development of final closure and postclosure maintenance plans
 - i. structure removal
 - j. replacement of environmental control components
2. The cost estimates for the final cover system, geosynthetic membrane, and QC/QA program appear low. These items should be presented in more detail and the costs justified.
 3. State regulations require that the total closure cost estimate be increased by a contingency factor of 20 percent [14 CCR, Article 3.4, section 18263(a)(4)]. The submitted closure cost estimates only contain a 10 percent contingency.
 4. Postclosure maintenance cost estimates should be more detailed. Postclosure maintenance cost estimates should include the projected costs for replacement of environmental monitoring and control system components during the postclosure period. For example, the projected costs of replacing ground water and landfill gas monitoring wells during the postclosure period should be included.
 5. The cost estimates for surface and ground water monitoring are identical in the postclosure maintenance cost estimates. Given the differences in the tasks, this does not seem reasonable.
 6. The cost estimate for the ground water monitoring seems low given the large number (54) of wells proposed for the monitoring network. Can these numbers be backed up by cost estimates for individual analyses on a per well, per sampling event basis?
 7. Surface geophysics are listed in three places in the postclosure maintenance cost estimates but are not mentioned in the plan.

8. State regulations require that the postclosure maintenance cost estimate, used to demonstrate financial assurance, be obtained by multiplying the annual cost of maintenance and monitoring anticipated during the postclosure period by 15 years [14 CCR, Article 3.4, section 18266(a)(3)]. CEPA regulations require this figure to be based on the entire postclosure maintenance period.

J. COMPLIANCE WITH MINIMUM STANDARDS

- 1) Section N of the introduction (page 6) states that "facilities for receiving, handling, treatment, composting, or disposal of hazardous waste are prohibited on the Campo Indian Reservation." This section should make an exception for storage and handling of household hazardous waste diverted from disposal by the random load checking program described in Section F of Other Required Mitigations (page 34).
- 2) The permit does not seem to specifically condition the disposal of landfill gas condensate.
- 3) It is difficult to review the design of a facility as separate from the operation of the facility. Future permit submittals should contain descriptions of both the operation and design of the facility.

K. FINANCIAL ASSURANCES

Although the December 2, 1992 draft included language referring to the Permittee securing financial assurances for corrective action and closure and postclosure maintenance of the facility, there was no evidence of the Permittee securing liability coverage for third party claimants. In addition, there were no documents submitted, demonstrating the aforementioned coverages.



February 17, 1993

Mr. Bernie Vlach
California Integrated Waste Management Board
8800 Cal Center Drive
Sacramento, California 95826

Dear Mr. Vlach:

Enclosed for your information are responses to the draft comments of CIWMB staff upon the Tentative Authority to Construct (ATC) previously transmitted to you by CEPA. The comments have been marked "PTO" or "P", respectively, where the item appeared to relate primarily to an operational matter or a procedural matter.

We will look forward to reviewing these comments with you and CIWMB on February 22, 1993.

Sincerely yours,

Michael Connolly
Michael Connolly
Chairman, CEPA Board

MC/sac
Enclosures

cc: Rob Saroyan
Robert Conheim
Phillip Morales
Paul Helliker

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PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

A. Application Form (SF 0001 6/92)

Q

1. The application form should be accepted by the Campo Environmental Protection Agency (CEPA).

1. CEPA does not need to accept the application form in order to comply with the requirements of its Regulations. The Campo Code of Tribal Regulations, Title V, (V C.T.R.) Section 505.36 (a)(1) states:

"Upon its receipt, CEPA shall mark the application with the date of receipt and shall examine the application for conformity with the requirements of these Regulations. If it is found to conform to the requirements of these Regulations, the application shall be accepted and stamped with the date and time of acceptance. The application shall be deemed filed on the date of acceptance."

Upon consideration of the application submitted by Mid-American Waste Systems, Inc. (Mid-American), dated August 1992, and additional information including Addenda 1 and 2, CEPA accepted the application by written letter to Mid-American on November 13, 1992.

Q

2. The facility size stated on the application is 400 acres. 400 acres is the actual area to be filled. The application should include the acreage for entire facility which is 600 acres.

2. The application form does not specify whether "facility size" means the actual fill area (400 acres) or the area including the landfill and ancillary facilities (600 acres). CEPA does not find that Mid-American is out of compliance with any CEPA rules or policies by identifying only the fill area on the application form.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment	CEPA Response
<p>3. The application states the daily peak tonnage is 4500. The permit and environmental document state 3(XX) tons per day is the peak.</p>	<p>3. Although Mid-American has identified a daily peak loading of 4,500 tons per day on the application form, the Authority to Construct (ATC) Permit issued by CEPA provides that:</p> <p>"Permittee shall not deposit more than approximately 3,000 tons per day in the Landfill" (provision H.O.).</p>
<p>4. Provide the legal description and address of the facility.</p>	<p>4. CEPA requires location information to be contained in an application for a disposal facility permit, V C.T.R. Section 505.32(e)(2)(F). A plot plan that delineates the legal boundaries of the disposal facility site, including but not limited to a description of all ownership or other interests, both legal and beneficial, in the land is provided in the application as Figure 1-3 in Volume 1, Binder 1. CEPA's Regulations do not require that the legal description and address of the facility be provided on an application form.</p>
<p>5. The waste types listed on the application do not include designated waste. The applicant discusses the acceptance of designated waste in Addendum 1, page 2, number 4. The applicant states the following:</p> <ul style="list-style-type: none"> Certain wastes, which are not hazardous waste but regarded as designated waste may be accepted at the Campo landfill after it is demonstrated that the constituents of the designated waste present a lower risk to the environment than indicated by the waste classification and that the co-disposal of this waste shall not render the designated waste hazardous (V CTR Section 505.13 (b)). 	<p>5. Although the application alludes to the possible acceptance of designated waste in Addendum 1, Comment/Response 4, CEPA has prohibited the disposal of designated waste as provided in provision H.N. of the ATC Permit.</p>

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

- Documentation regarding designated waste that may be accepted at the Campo Landfill will be submitted to CEPA for approval as the particular types of waste are considered for disposal.

The proposed sanitary landfill as described in the Final Environmental Impact Statement is a Class III solid waste disposal facility. The Campo Band of Mission Indians Code of Tribal Regulations (V CTR) Section 505.13 (a) states that "solid waste that is not designated waste shall be discharged at a Class III disposal facility" and V CTR Section 505.12 states that "designated waste shall be discharged only at class II solid waste facilities that comply with the requirements of these regulations and that have been approved by CEPA for the particular kind of waste being discharged. Since this facility is a Class III facility, no designated waste shall be accepted at this facility.

- 6. Special solid waste is checked on the application form. Volume 2, page 6 states that special solid waste is not planned to be accepted at this facility. This inconsistency should be resolved.
- 7. The application should identify the owner of the land and include the owners signature.

- 6. The CIWMB is correct in its assessment that the application is inconsistent with regard to planned disposal of special solid waste. CEPA should add a provision to the ATC Permit which prohibits the disposal of special solid waste without the prior approval of CEPA.
- 7. CEPA's Regulations do not require that an application form identify the owner of the land, nor require that the owner sign the form.

*

*

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

B. The following comments address the information required in a Report of Disposal Site Information (RDSI) (permit application):

P/P/O

1. The average daily throughput should be identified.

1. CEPA has permitted an average tonnage of 3,000 tons per day, as specified in provision II.O. of the ATC Permit.

P

2. The average load capacity the facility will receive on a yearly basis over the next five years is not identified.

2. CEPA's Regulations do not specifically require that an application identify the average load capacity the facility will receive on a yearly basis over the next five years. CEPA does not find that Mid-American is out of compliance with any CEPA rules or policies by not providing such information.

3. Volume 2, page 2 states each cell of the landfill will have an area of 20-30 acres. The permit states each cell will be "approximately" 18-20 acres. Please correct this discrepancy.

3. CEPA is permitting a facility consisting of 19 phases or cells to occupy an ultimate area of 400 acres. The typical cell acreage will be closer to 20 acres than to 30 acres. Individual cell acreages are shown on Drawings C120 and C121 of the application.

P/O

4. Typical daily operations are proposed in Volume 2, page 3 of the RDSI. The discussion of daily operations needs to be expanded.

4. CEPA's requirements for an Operations Plan are in V.C.T.R. Section 505.32(f)(2). CEPA agrees with the CIWMB that the Operations Plan contained in Volume 2, Binder 8 of the application is of insufficient detail. However, CEPA has chosen to defer the requirement of V.C.T.R. § 505.32(f)(2) until the Permit to Operate (P/O) phase of the permitting process.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

P
PTD

5. Hours of operation for the landfill are not stated in the documents.

5. CEPA has no requirements for hours of operations in its Regulations. CEPA does not find that Mid-American is out of compliance with any CEPA rules or policies by not providing such information.

*

PTD

6. The only backup equipment listed is a water truck (Volume 2, page 4). No plans for standby equipment availability is discussed.

6. CEPA's requirements for equipment are in V.C.T.R. Section 530.18. Although additional information about facility equipment is included in Addendum 1, Page 15, Comment/Response 15, CEPA has chosen to defer the requirement of V.C.T.R. §530.18 until the PTO phase of the permitting process.

PTD

7. A discussion of sanitary facilities for employees should be included in the RDSI.

7. CEPA's requirements for sanitary facilities and water supply are in V.C.T.R. Section 530.15(a). Information about sanitary facilities is included in Volume 2, Attachment A, Binder 8 (Section 5.3.4 of the Design Report), and Addendum 1, Page 12, Comment/Response 12. Information about potable water supply is included in Volume 2, Attachment A, Binder 8 (Section 5.3.3 of the Design Report). CEPA has chosen to defer the requirement of V.C.T.R. §530.15(a) until the PTO phase of the permitting process.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

PTD

8. The RDSI needs to include a section that discusses the hazardous waste screening program. The screening program should consist of the following activities: inspection of random incoming loads; regular visual inspection of the wastes deposited at the facility; training of facility personnel in hazardous waste recognition and proper hazardous waste handling procedures; reporting incidents of unlawful disposal to specific agencies (the names and number should be stated); and installation of signs at the facility entry way indicating that no hazardous wastes may be accepted.

Describe storage and handling of hazardous waste identified in the screening program; give maximum storage time prior to removal and the isolation/storage location.

8. CEPA's requirement for a hazardous waste load checking program at disposal facilities is at V.C.T.R. Section 530.03(b). In addition, the CEPA's requirements for entry signs are at V.C.T.R. Section 530.14(b). Mid-American has proposed a load checking program in its application (Volume 2, Binder 8, Section 1.2.3), and discusses entry signs in Volume 2, Binder 8, Attachment A, Section 5.3.2. CEPA has found that the proposed load checking program does not meet the requirements of V.C.T.R. §530.03(b) or V.C.T.R. §530.14(b), and has chosen to defer these requirements until the PFO phase of the permitting process.

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment

CEPA Response

PTD 9. Describe control measures for each of the following: noise, odors, litter, dust, insects, rodents, and fire.

9. CEPA's noise control requirements are at V.C.T.R. Section 530.17(j). Measures to comply with CEPA's noise control requirements are briefly discussed in Addendum 1, Page 14, Comment/Response 14. CEPA has chosen to defer the requirement of V.C.T.R. §530.17(j) until the PTO phase of the permitting process. In addition, as noise impacts were evaluated in the Environmental Impact Statement (EIS), Mid-American will be required to comply with all mitigation measures identified in the Final EIS to mitigate noise impacts (provision VIII.C. in the ATC Permit).

CEPA's odor control requirements are at V.C.T.R. Section 530.17(k). Measures to comply with CEPA's odor control requirements are proposed in Volume 2, Binder 8, Section 1.2.2; in Volume 3, Binder 11A, Sections 3.2.9 and 4.2.8; and in Addendum 1, Page 14, Comment/Response 14. CEPA has imposed measures for odor control in Section VII of the ATC Permit.

CEPA's dust control requirements are at V.C.T.R. Section 530.17(d). Measures to comply with CEPA's dust control requirements are briefly discussed in Addendum 1, Page 14, Comment/Response 14. CEPA has imposed measures for dust control in the ATC Permit, provisions VII.W. through VII.AC.

CEPA's vector (including insects and rodents) control requirements are at V.C.T.R. Section 530.17(e). Measures to comply with CEPA's vector control requirements are briefly discussed in Volume 2, Binder 8, Section 1.2.1, and in Addendum 1, Page 14, Comment/Response 14. CEPA has chosen to defer the requirement of V.C.T.R. §530.17(e) until the PTO phase of the permitting process.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

QIP 10. If salvaging, volume reduction or recycling is permitted, list the conditions to be imposed on each type of operation. For example, list the types of goods to be salvaged, the types of salvage vehicles or equipment utilized, the location of the processing area, the location of the salvage area, and the frequency of removal of salvaged goods. Also include contingency plans for manpower and equipment availability during emergencies.

CEPA's fire control requirements are at V C.T.R. Section 530.17(c). Measures to comply with CEPA's fire control requirements are briefly discussed in Volume 2, Binder 8, Section 1.2.1, and in Addendum 1, Page 14, Comment/Response 14. CEPA has chosen to defer the requirement of V C.T.R. §530.17(c) until the PTO phase of the permitting process.

10. CEPA's salvaging requirements are at V C.T.R. Section 530.16(h). The applicant has proposed no salvaging and CEPA has chosen to defer the requirement of V C.T.R. §530.16(h) until the PTO phase of the permitting process.

CEPA's volume reduction requirements are at V C.T.R. Section 530.16(i). The applicant has proposed no volume reduction and CEPA has chosen to defer the requirement of V C.T.R. §530.16(h) until the PTO phase of the permitting process.

CEPA's Regulations require that a recycling facility on the Campo Indian Reservation must obtain a separate permit from CEPA. The application under consideration (submitted to CEPA by Mid-American) is for the permitting of a solid waste disposal facility only.

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment

CEPA Response

P
PTD

11. Provide a statement as to whether noise from site operations is likely to create health hazards to persons using the site and/or to nearby residents.

11. CEPA's noise control requirements are at V.C.T.R. Section 530.17(j). Measures to comply with CEPA's noise control requirements are briefly discussed in Addendum 1, Page 14, Comment/Response 14. CEPA has chosen to defer the requirement of V.C.T.R. §530.17(j) until the PTO phase of the permitting process. In addition, as noise impacts were evaluated in the Environmental Impact Statement (EIS), Mid-American will be required to comply with all mitigation measures identified in the Final EIS to mitigate noise impacts (provision VIII.C. in the ATC Permit). CEPA's Regulations do not specifically require that a statement about health hazards due to noise from site operations be included in an application for a disposal facility permit.

PTD

12. Include a description of the handling procedures which will be employed for sewage sludge.

12. CEPA's requirements for sewage sludge are at V.C.T.R. Section 505.13(c). In addition, liquid waste requirements are at V.C.T.R. Sections 505.10(d) and 530.16(k). Although the application discusses sewage sludge (Volume 1, Binder 1, Section 2.1.1; Volume 2, Binder 8, Section 1.2.3; and Volume 2, Binder 8, Attachment A, Section 3.2), no information is provided regarding the handling procedures for sewage sludge. CEPA has chosen to defer the requirements of V.C.T.R. §505.10(d), §505.13(c) and §530.16(k) until the PTO phase of the permitting process.

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment

CEPA Response

C. The following comments address the Solid Waste Facility Permit to Construct for the Campo Landfill:

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|--|--|
| <p>P 1. Staff suggest the word "approximately" be removed from the phrase "approximately 400 acres" on page 2 of the permit.</p> | <p>1. No comment.</p> |
| <p>P 2. Page 4, letter "I" the date is missing in the first paragraph.</p> | <p>2. The date of the public hearing was not firm when the draft permit was issued on December 2, 1992. The public hearing was held on February 5, 1993.</p> |
| <p>3. Page 4, letter J states "approximately 3000 tons" and "approximately 18 to 20 acre" cells. These estimates are inconsistent with the information provided by the operator on the application form and in the RDSI as stated elsewhere in this communication.</p> | <p>3. The determinations in the ATC Permit supersede any information that may be contained in the application.</p> |
| <p>P 4. Page 6, letter O states that the "permittee shall not deposit more than approximately 3000 tons per day." Staff suggest the CEPA remove the word "approximately."</p> | <p>4. No comment.</p> |
| <p>P 5. The permit does not identify the owner of the facility.</p> | <p>5. No comment.</p> |
| <p>6. The permit should include a description of the entire physical plant including platforms, stationary equipment, buildings, ramps, storage area, etc.</p> | <p>6. The ATC Permit includes a description of the disposal facility in provision II.J.</p> |

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

- PTD 7. The permit should specify all types of wastes will be received including special wastes (e.g., non-hazardous solid wastes which consists of...).
- P 8. The permit should quantify the waste received per operating day. The quantity should be expressed as tons per day and provide daily average and peak loadings.
- PTD 9. Include a description of the method of operation. Typical flow pattern of waste from entry to disposal/exit.
- PTD 10. Resource recovery or salvaging operations conducted or planned should also be included. A statement that hazardous wastes, such as batteries or used oil, if accepted shall be handled in a manner approved by the CEPA.

- 7. This permit does not authorize the disposal of waste. CEPA specifically did not include the types of waste to be accepted at the facility. However a PTO Permit will include such information.
- 8. The ATC Permit quantifies the waste received in provision H.O.
- 9. This permit does not authorize the disposal of waste. CEPA specifically did not include operations information.
- 10. A resource recovery facility on the Reservation is required to obtain a separate permit from CEPA. The application under consideration (submitted to CEPA by Mid-American) is for the permitting of a solid waste disposal facility only. In addition, the applicant has proposed no salvaging. Any salvaging proposed by the applicant will be subject to CEPA approval.

The CIWMB's comment regarding the appropriate handling of hazardous wastes is valid. Provision H.N. of the ATC Permit should be amended to appropriately handle any hazardous waste diverted from disposal by the load checking program.

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PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

- PTD 11. Provide a complete description of the hazardous waste screening program, including a description of the load checking program. Such programs must be implemented to prevent and discourage disposal of hazardous wastes at solid waste facility.

The load checking program should consist of the following activities: Inspection of random in-coming loads; regular visual inspection of the waste deposited at the facility; training of facility personnel in hazardous waste recognition and proper hazardous waste handling procedures; reporting incidents of unlawful disposal to special agencies (the names and telephone numbers should be stated in the permit); installation of signs at the facility's entry way indicating that no hazardous wastes are accepted; a list of unacceptable wastes. A statement that additional measures may be required upon request of the CEPA.

- P 12. Include the operating days and hours.
13. Include a statement that operations at the landfill must comply with all mitigation measures given in the Final Environmental Impact Statement in accordance with the National Environmental Policy Act, 42 U.S.C. §§4321-4370 (a)(1988).

11. As CEPA has not approved the applicant's load checking program and has chosen to defer the requirement of V.C.T.R. 530.03(b) until the PTO phase of the permitting process, a description of the load checking program would be more appropriate in a PTO Permit.

12. CEPA has no requirements for operating days and hours and the applicant has proposed no information regarding operating days and hours. *

13. In accordance with Section 501(c) of the Campa Band of Mission Indians Solid Waste Management Code of 1990, a permit will be issued only if feasible mitigation measures identified in any EIS prepared pursuant to the National Environmental Policy Act ...("NEPA"), have been incorporated as permit conditions in either the ATC or the PTO. *

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment

CEPA Response

PTD
14. A listing of monitoring requirements should be included. Records of the results of required monitoring must be maintained by the operator and provided to the CEPA at intervals specified. Some examples of monitoring requirements are:

- a. Environmental measurements of water quality, leachate, gas, noise, dust levels, etc. shall be reported to the CEPA on a _____ basis.
- b. Number of vehicles utilizing the site during a specified time period shall be reported to the CEPA on a _____ basis.
- c. Area of site utilized shall be reported to the CEPA on a _____ basis (Include the location and depth of all filled areas was built).
- d. Quantities and types of wastes received shall be reported to the CEPA on a _____ basis.
- e. Quantities and types of good recycled and/or salvaged shall be reported to the CEPA on a _____ basis.

14. CEPA's reporting requirements are at V.C.T.R. §505.32(b) and §530.12. CEPA has chosen to defer the requirements of V.C.T.R. §505.32(b) and §530.12 until the PTO phase of the permitting process.

Recordkeeping and Reporting Requirements for the groundwater, surface water and unsaturated zone detection monitoring programs are contained in Section VI of the Tentative Water Monitoring and Reporting Program, and subsurface record conditions may be found at provisions V.C. and V.I. of the ATC Permit. The list of monitoring requirements suggested by the CIWMB would be most appropriate to include in a PTO Permit.

- a. See above.
- b. See above.
- c. See above.
- d. See above.
- e. See above.

**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment	CEPA Response
f. A log of special occurrences, i.e., fires, explosions, accidents, hazardous wastes, etc., shall be maintained and reported to the CEPA on a _____ basis.	f. See above.
g. Results of the hazardous waste screening program shall be reported to the CEPA on a _____ basis.	g. See above.
D. Drainage and Erosion Control	
1. Further justification is needed for the numerical value of the runoff coefficient used in the drainage calculations. It is not clear how the "C" value was chosen from Table 2, page 4/4, Binder 10.	1. CEPA has reviewed the runoff calculations, including the selection of the runoff coefficient "C" used in the rational method. The runoff coefficient selected, 0.45, is considered to be acceptable based on the County of San Diego Hydrology Manual land use for rural residential lots with less permeable soils (conservative) and based on the Metropolitan Nashville and Davidson County Stormwater Management Manual (relevant excerpts attached) land use for steep pasture, grass, and farmland with sandy soils.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment	CEPA Response
<p>2. The soil loss calculations provided indicate that the potential soil loss at the site is as high as 13 tons/acre/year on the top deck and 75 tons/acre/year on the slopes. Federal EPA guidelines suggest soil loss values on the order of 2 tons/acre/year. Given that the projected total disposal area is approximately 400 acres, the impact of sedimentation area is approximately 400 acres, the impact of sedimentation on the drainage controls will be significant. The soil loss values should be justified, and a description of how the drainage system will be inspected and maintained should be included in the description of the drainage system.</p>	<p>2. CEPA staff reviewed the soil loss calculations submitted in the permit application documents and determined the calculations to be acceptable. The conservative soil loss estimates were developed for sizing the sediment basins. As a result, the sediment basins are sized to accommodate a higher soil yield than will occur. Since there is sufficient space at the site to accommodate the oversized sediment basins and the basins do not serve as storm water detention basins, the conservative estimates of soil yield pose no problem.</p> <p>As the landfill will be constructed and eventually operated (if permitted) in phases, the size of a disturbed area will vary but will always be significantly smaller than the landfill footprint. Also, during the different stages of construction and operation, appropriate erosion and sediment controls will be implemented to reduce soil loss and sediment transport. Temporary vegetation will be established in disturbed areas where construction activities have been suspended for a predetermined amount of time. Silt fences and toe of slope filters will be used in active construction areas and areas where temporary revegetation is not feasible. Construction controls will be detailed in the Construction Work Plan submitted for CEPA approval prior to initiation of construction activities. A revegetation plan will be developed by a qualified botanist and submitted to CEPA for approval, as required by the Section E of the ATC Permit, Living Resources.</p>

**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment	CEPA Response
<p>3. In the calculation of soil loss, a cover factor of one was used. This assumption indicates that no vegetative cover will be present. Is this the case? If so, the issue of vegetative cover should be reconsidered in view of the high potential soil loss.</p>	<p>3. See previous response (response 2).</p>
<p>4. The soil loss calculations should be divided into sections addressing specific areas within the landfill. Smaller sections characterized by similar grading, vegetation, and drainage characteristics will yield more precise results.</p>	<p>4. The division of areas for calculation of soil losses for the cap and slopes is considered a reasonable division. See response 2.</p>
<p>5. Runoff velocities for both the channelized and sheet flows should be included.</p>	<p>5. All channelized flows are contained in concrete lined ditches. The flows are relatively small, so information on velocity was not required. Velocities are easily calculated from the continuity equation. See Calculation C-5802-1110, Binder 10. The average flow velocities for drainage segments are indicated in Calculation C-5802-1040, "Hydraulic Flow Quantities" in Volume 2 of the application, Binder 10. These values include sheet flows.</p>

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

PTD

6. The slope protection and erosion control section of the closure plan does not mention revegetation, and the closure cost estimate lists costs for revegetation of only 32 of the proposed 400 acres of fill area. Revegetation or alternative methods of stabilizing the soils on the closed landfill need to be discussed.

6. As the Closure Plan is considered more relevant to operation than to construction, review of the Closure Plan has been deferred to the second phase of the permitting process, the operations review. However, Section E of the ATC Permit, Living Resources, has made the requirement that a revegetation plan be developed by a qualified botanist and submitted to CEPA for approval.

With regard to the costs for revegetation in the closure cost estimate, the values included meet the requirements of V.C.T.R., Section 505.34(c)(2)(I), closure cost estimates for the Preliminary Closure Plan.

7. The proposed slopes of the top deck are five to ten degrees. More typical top deck slopes would be three to six degrees. Is there a reason for the steeper top deck slopes, and are the steeper slopes possibly contributing to the high potential soil loss?

7. The slopes of the top deck are 5 to 10 percent, as opposed to 5 to 10 degrees. Five to 10 percent slope is considered favorable to promote drainage from the cap even in the event of settlement.

?

E. Leachate Control

1. The submitted materials state in several places that, based on analyses performed using the HELP model, the generation of leachate is not expected at the proposed facility. However, there is no description of the input parameters used or assumptions which may have been made in running the HELP model. Also, the model runs, themselves, are not included; these materials should be included.

1. The HELP Model input parameters and results are contained in Appendix D of the Final Environmental Impact Statement, Campo Solid Waste Management Project, dated November 1992. Additional information on interpretation of HELP Model results may be found in Addendum 2, Volume 2, Comment/ Response 5.

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment

CEPA Response

F. Landfill Gas Collection and Monitoring (Volume 3A, Binder 11-A, Volume 3B, Binder 11-B)

- 810/c
1. Page 13, Section 3.2.10, Standards for Compliance Testing and Record Keeping - Suggest, for reasons of health and safety, that the O&M manual contain procedures for detecting combustible landfill decomposition gas (LDG) at or greater than 100 ppm as methane. All positive readings for methane should be recorded, repair of leaks should be scheduled as-soon-as possible, and a plan to minimize exposure of work personnel to LDG should be initiated. This is not a regulatory requirement, but the noted procedures are consistent with the California Integrated Waste Management Board's internal health and safety plan and would minimize the risk of exceeding regulatory requirements.
 - 812 2. Page 16, Section 3.3.1, General Gas Monitoring and Control Requirements - Suggest that routine colorimetric tube testing for LDG constituents be verified annually by a state certified laboratory testing of LDG collected in Suma canisters.

1. CEPA will require, regardless of the applicant's suggested O&M manual, in permit conditions or elsewhere, that combustible gas survey instruments capable of detecting 100 ppm as methane be used, and that the date, location, observer name, concentration detected, remedial action and disposition be recorded for each determination whether positive or not.
2. CEPA will likely require the operator to monitor for trace toxic gases by surrogate monitoring of combustible gases. The operator will be required to treat all positive combustible readings as positive for trace toxics (and negative combustibles equivalent to negative toxics). Thus colorimetric sampling for toxics will not be necessary. CEPA concurs with the requirement to analyze landfill gas by chromatography at a state-certified laboratory.

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment

CEPA Response

3. Page 29, Section 5.5, 'Typical Shutdown Sequence and Drawing No. LFG-8 - There is an apparent need to provide battery backup or auxiliary power source to carry out the shutdown sequence as described when a loss of power occurs. In particular, the automatic flare valve is motor operated and will not close without electrical power, the Programmable Logic Controller (PLC) will not be able to perform any output functions nor will the auto-dialer be able to function to alert the station operator without some form of standby power. (NOTE: Section 6.5.6, Shut Off Valve, indicates that "the valve is electro-hydraulically opened and spring closed" and is inconsistent with the plans and specifications which indicate no hydraulic system, (external or integral), associated with the valve operators.)

3. CEPA's concern is primarily not allowing an unincinerated release of landfill gas. The flare and collector system need electric power to convey the landfill gases to the flare. Any interruption of power to the blowers will suspend this capability.

Electrical power is also needed by the programmable logic controller to operate the flare temperature control vanes and notify the operator of failure, and by the landfill gas isolation valve to open itself. Upon power failure the landfill gas isolation valves will "fail closed." The valve description in Appendix E of Volume 3 is an electrically powered, self-contained hydraulically opened, spring closed actuator. The valve description supplied by the flare vendor indicates the valve is electro-mechanically opened and closed by externally applied gas pressure (pneumatically closed). In either case the valve does not need electricity to close and will automatically close on loss of power.

Thus backup power to complete the flare shutdown is not required, the flare will shut down when the blowers go down. Backup power to prevent the blowers from being deactivated has not been required. CEPA requires the blowers to be operated depending on the landfill headspace pressure (thus envisioning periods of non-operation if the pressure is satisfactorily low).

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (CIWMB)

IWMB Comment

CEPA Response

4. Section 8, Phasing - There is no apparent provision for flare capacity backup for periods of routine maintenance or emergency repairs. One possible solution would be to install an additional Phase I flare during the initial construction phase. The two smaller Phase I flares would then serve as backup for the Phase II and Phase III flares. Sufficient flare backup capacity is necessary to prevent excessive accumulation and possible discharge of LDG during extended flare down times.

4. CEPA has not required redundant flare capacity, but would allow the flare to be taken off line if the landfill headspace pressure is sufficiently low. CEPA concurs with the CIWMB's suggestion requiring a 100% capacity spare for the Phase I flare, and using the two Phase I flares as backup for the Phase II flare.

CEPA envisioned that during the early stages of the landfill filling, when the Phase I flare was installed, there would not be high enough gas generation to justify full time performance, thus allowing down-time for repair or maintenance. When the landfill gas generation rate rises permanently above the Phase I flare's capacity, CEPA requires installation of the Phase II flare, which is five times larger than the Phase I flare. CEPA did not require removal or retirement of the superseded Phase I flare, and the applicant's plans for the superseded flare are unclear. CEPA would not have allowed the applicant to bypass untreated gas around the flare, nor allowed the pressure to rise excessively.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment	CEPA Response
<p>5. Drawing LFG-5, Detail 7, Horizontal Slip Joint - Need to provide an additional seal detail or tolerance table to ensure that the gap between the outside of the slipping pipe and the machined cap through which the pipe slides is sufficiently small so that gas leakage will not upset the flow distribution in the collector pipe.</p>	<p>5. CEPA concurs and will require tabulation on the drawing and minimization of the fit tolerance.</p> <p>A 0.023 inch-thick annulus around a six-inch pipe would have the same cross-sectional area as a 3/4 inch orifice. Thus for each 3/4 inch hole covered by the connector, the equivalent clearance is 0.023 inch. The connectors are to be 20 feet long, thus four 3/4 inch orifices would be covered, and a clearance of 0.100 inch would have no effect on the influence radius of the collector.</p>
<p>6. Drawing LFG-5, Detail 8, Horizontal Condensate Drain With Slip Joint - see comment 5. In addition, there are no specifically identified locations on the plans requiring the use of this type of trap; in fact, if the gas collection laterals are installed according to the plans, there will be an inlet orifice hole every twenty feet which will allow condensate to escape from the laterals. The use of these drains should be minimized and an accurate (surveyed to fixed site control monuments both horizontally and vertically) record kept and noted on as-built drawings.</p>	<p>6. CEPA's concern here is that the collector not be blocked by accumulated liquid. The slip joint condensate sumps are meant to be employed only at collector low points or sag points where liquid might otherwise accumulate (probably to be located after the fact where the normal drainage mechanisms--downward pointed gas orifices--have been shown to be overcome). CEPA will require placement of the slip joint condensate traps only at such places, and will require the as-built recording of their locations.</p>

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (CIWMB)

IWMB Comment

CEPA Response

PTD

7. Drawings LFG-5, Detail Gas Probe - Provide a valve and tube fitting for 1/8 to 1/4 inch I.D. plastic tubing. Detail does not show how gas monitoring wells with more than one probe will be installed; therefore, one must conclude that gas monitoring wells requiring more than one probe will be installed as separate clustered probes for each monitoring well. A single multiple probe construction detail must be approved by the proper regulatory agency prior to installation if multiple probe gas monitoring wells are constructed.

7. CEPA will require the sampling port for plastic tubing. CEPA requires the submission and approval of the gas monitoring system details before waste deposition may begin. (but after construction might have started). At that time the applicant will have to demonstrate compliance with V.C.T.R. Part 530 (G), equivalent to the CIWMB's post-closure gas monitoring requirements.

G. Slope Stability

1. Stability of Natural Soil Slopes, Volume 2, Binder 1, Section 6.3:

- a. The calculated pseudostatic factor of safety against sliding of 1.03 for the cut and fill slopes along the east ridge access road is very low. A calculated factor of safety of at least 1.2 or greater would be more appropriate. If the slope in question fails, the final cover and/or the anchor trench for the liner could be adversely impacted.
- b. The text makes references to "Lee's Method" as a basis for establishing the cumulative lateral displacement. However, neither the method itself nor the assumptions made prior to its employment are adequately explained or included in the submitted material.

a. CEPA staff will work closely with the CIWMB staff to further clarify the methods utilized to analyze site stability and the results of the stability analyses. A written response will follow the staff discussions.

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

IWMB Comment

CEPA Response

2. **Stability of Waste Slopes, Volume 2, Binder 1, Section 6.4:**
 - a. **Title 14 CCR, Chapter 3, Article 7.8, Section 17777 requires a calculated factor of safety for the critical slope of at least 1.5 under dynamic conditions. In lieu of achieving a factor of safety of 1.5 under dynamic conditions, a more rigorous analytical method that provides a quantified estimate of the magnitude of movement may be employed. In this case, the report shall demonstrate that the amount of movement can be accommodated without jeopardizing the integrity of the final cover or environmental control systems. The seismic factor of safety for the waste slopes during the Maximum Credible Earthquake is undetermined and appears to be not only less than 1.5 but less than 1.0.**
 - b. **See comment 1b above (Stability of Natural Soil Slopes).**
 - c. **The determination of only the cumulative lateral displacement at the toe does not allow the evaluation of the vertical and horizontal components of seismically induced differential movements along the slope of the landfill. Such movements may impact the integrity of the environmental control systems. More rigorous analytical methods are available and can be employed to provide this information.**

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**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (CIWMB)**

IWMB Comment

CEPA Response

II. Closure and Postclosure Maintenance Plans

8 1. Closure and postclosure maintenance plans should be separate stand-alone documents. While many of the components of the plans are included in other places in the submitted materials, the fragmentation not only makes review difficult but reduces the potential usefulness of the plans.

PTD 2. The descriptions under Section 2.1.8 need to be elaborated upon. It is not acceptable to simply reference the drawings and specifications and state that the applicable regulations will be complied with.

PTD 3. It appears that many of the descriptions of the postclosure monitoring activities have been deferred to the forthcoming operations permit. This seems very awkward. Perhaps, if CEPA feels that the majority of the postclosure maintenance tasks are more appropriately operational in nature, the entire postclosure maintenance plan should be part of the operations permit rather than the permit to construct.

1. The permit application submitted to CEPA contains a preliminary closure plan and a preliminary post-closure maintenance plan as required by V C.T.R. §505.34(b)(1). An operator must submit final closure and post-closure maintenance plans two (2) years prior to the anticipated date of closure. CEPA's Regulations do not require that either the preliminary or the final closure and post-closure maintenance plans be stand-alone documents.

2. Section 2.1.8 of Volume 2 of the application (Binder 8) is intended to meet the requirement of V C.T.R. §505.34(c)(2)(J). Although CEPA staff had determined this section to meet the requirements of V C.T.R. §505.34(c)(2)(J), a revised preliminary closure plan must be submitted to CEPA in an application for a Permit to Operate, and therefore the CIWMB's concerns regarding the insufficient detail in this section may be addressed.

3. No comment.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment	CEPA Response
4. Erosion control (see comments above under drainage and erosion control).	4. See responses to comments under drainage and erosion control.
1. Closure and Postclosure Maintenance Cost Estimates	
<p>OTD 1. Closure cost estimates should be more detailed. Cost estimates should include costs for specific activities within the main closure activities and include itemized costs for the following:</p>	<p>1. The design of the final cover system for the landfill has been modified from the design proposed in the application. The design now includes an additional 3 feet in the vegetative soil layer, as well as an additional 1 foot of low permeability soil in the barrier layer. The closure cost estimate must be revised to include the costs for the additional cover materials. Some of the items the CIWMB is concerned about (a through j below) have been included in the estimates, such as construction quality assurance requirements, drainage system installation, and development of final closure and post-closure maintenance plans. In addition, the decommissioning of buildings was added to the closure cost estimate in Addendum 2, Volume 2, Comment/Response 1. A revised closure cost estimate must be submitted to CEPA in an application for a Permit to Operate, and therefore the CIWMB's concerns regarding the insufficient detail of the estimate may be addressed.</p>
a. acquisition, placement, compaction, and grading of final cover	a. see above
b. acquisition, placement, and inspection of geosynthetic membrane	b. see above

**PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD (IWMB)**

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IWMB Comment	CEPA Response
c. construction quality assurance requirements	c. see above
d. soil preparation, planting, fertilizing, and irrigation of vegetation	d. see above
e. installation of any environmental monitoring or control systems or components not installed during the operational phase	e. see above
f. drainage system installation	f. see above
g. adding or removing security measures compatible with postclosure land use	g. see above
h. development of final closure and postclosure maintenance plans	h. see above
i. structure removal	i. see above
j. replacement of environmental control components	j. see above
gtd 2. The cost estimates for the final cover system, geosynthetic membrane, and QC/QA program appear low. These items should be presented in more detail and the costs justified.	2. see above
gtd 3. State regulations require that the total closure cost estimate be increased by a contingency factor of 20 percent (14 CCR, Article 3.4, Section 18263(a)(4)). The submitted closure cost estimates only contain a 10 percent contingency.	3. The closure cost estimate was resubmitted in Addendum 2, Volume 2, Comment/Response 1. The revised cost estimate includes the 20 percent required contingency.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

PTD 4. Postclosure maintenance cost estimates should be more detailed. Postclosure maintenance cost estimates should include the projected costs for replacement of environment monitoring and control system components during the post-closure period. For example, the projected costs of replacing ground water and landfill gas monitoring wells during the postclosure period should be included.

4. The post-closure maintenance cost estimate includes maintenance of equipment for the gas monitoring and control system, the ground water monitoring system, the unsaturated zone monitoring system, the surface water monitoring system, and the drainage system. It is not clear from the estimate, however, whether the estimated costs for maintenance of these systems include the costs for replacement of equipment. The CIWMB's point is valid and when a revised post-closure maintenance cost estimate is submitted to CEPA in an application for a Permit to Operate, the applicant will be required to clarify this issue.

*

PTD 5. The cost estimates for surface and ground water monitoring are identical in the postclosure maintenance cost estimates. Given the differences in the tasks, this does not seem reasonable.

5. The CIWMB's point is valid. When the post-closure maintenance cost estimate is revised, the applicant will be required to substantiate the costs for monitoring.

*

PTD 6. The cost estimate for the ground water monitoring seems low given the large number (54) of wells proposed for the monitoring network. Can these numbers be backed up by cost estimates for individual analyses on a per well, per sampling event basis?

6. When the post-closure maintenance cost estimate is revised, the applicant will be required to substantiate the costs for monitoring.

*

PTD 7. Surface geophysics are listed in three places in the post-closure maintenance cost estimates but are not mentioned in the plan.

7. The post-closure maintenance cost estimate was resubmitted in Addendum 2, Volume 2, Comment/Response 2. The revised cost estimate does not include costs for surface geophysics.

est estimate, used to demonstrate financial assurance, be
thred by multiplying the annual cost of maintenance, be
monitoring anticipated during the post closure period and
15 years (14 CCR, Article 3.4, Section 18266(a)(3)).
CIRPA regulations require this figure to be based on the
entire postclosure maintenance period.

J. Compliance with Minimum Standards

1. Section N of the introduction (page 6) states that "facilities
for receiving, handling, treatment, composting, or disposal
of hazardous waste are prohibited on the Campo Indian
Reservation." This section should make an exception for
storage and handling of household hazardous waste diverted
from disposal by the random load checking program
described in Section F of Other Required Mitigations (page
34).

2. The permit does not seem to specifically condition the
disposal of landfill gas condensate.

The financial assurance mechanisms will be based upon
CIRPA's requirement of V.C.T.R. §505.34(b), the total costs
of conducting post-closure care over the entire post-closure
maintenance period. The applicant will be required to submit
calculated costs for the entire post-closure maintenance
period at the same time the revised closure cost estimate is
resubmitted.

1. The CIWMB's comment is well taken. V.C.T.R. Section
530.03 states that the receipt, acceptance, handling, storage
processing, or disposal of hazardous waste at any solid
waste disposal facility for disposal on the Reservation is
prohibited. CEPA will amend provision H.N of the ATC
Permit.

2. CEPA has strict liquids disposal requirements (V.C.T.R.
§505.10(d)) and hazardous waste disposal requirements
(V.C.T.R. §530.03). CEPA staff considered the manage-
ment of landfill gas condensate, however, CEPA staff
considered this an operations issue as the applicant did not
propose management techniques. In the application for a
Permit to Operate, the applicant must describe testing,
storage, and disposal procedures for landfill gas condensate.

PRELIMINARY COMMENTS FROM THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD (IWMB)

IWMB Comment

CEPA Response

3. It is difficult to review the design of a facility as separate from the operation of the facility. Future permit submittals should contain descriptions of both the operation and design of the facility.

3. No comment.

K. Financial Assurances

Although the December 2, 1992 draft included language referring to the Permittee securing financial assurances for corrective action and closure and postclosure maintenance of the facility, there was no evidence of the Permittee securing liability coverage for third party claimants. In addition, there were no documents submitted, demonstrating the aforementioned coverages.

As required by CEPA's Regulations, the Permittee must secure financial assurances for corrective action (V.C.T.R. §530.41), closure and post-closure maintenance (V.C.T.R. Part 530(11)) and operating liability (V.C.T.R. Part 515). CEPA has chosen to defer all the financial assurance requirements until the PFO phase of the permitting process.

Table 2-3
 RUNOFF COEFFICIENTS^a FOR A DESIGN STORM RETURN
 PERIOD OF 10 YEARS OR LESS

Slope	Typical Land Use	Sandy Soils		Clay Soils	
		Min.	Max.	Min.	Max.
Flat (0-2%)	Woodlands	0.10	0.15	0.15	0.20
	Pasture, grass, and farmland ^b	0.15	0.20	0.20	0.25
	Rooftops and pavement	0.95	0.95	0.95	0.95
	Pervious pavements ^c	0.75	0.95	0.90	0.95
Rolling (2-7%)	Woodlands	0.15	0.20	0.20	0.25
	Pasture, grass, and farmland ^b	0.20	0.25	0.25	0.30
	Rooftops and pavement	0.95	0.95	0.95	0.95
	Pervious pavements ^c	0.80	0.95	0.90	0.95
Steep (7%+)	Woodlands	0.20	0.25	0.25	0.30
	Pasture, grass, and farmland ^b	0.25	0.35	0.30	0.40
	Rooftops and pavement	0.95	0.95	0.95	0.95
	Pervious pavements ^c	0.85	0.95	0.90	0.95

^a Weighted coefficient based on percentage of impervious surfaces and green areas must be selected for each site.

^b Coefficients assume good ground cover and conservation treatment.

^c Depends on depth and degree of permeability of underlying strata.

Specific Zoning Classification	Runoff Coefficients
Residential	
AR2a, R2a	0.25 - 0.35
RS40, R40, RS30, R30, RS20, R20	0.40 - 0.50
RS15, R15	0.45 - 0.55
RS10, R10, RS8, R8	0.55 - 0.65
RMS, RM6, RS6, R6	0.65 - 0.75
Commercial	
CH, CSL, CS, CG, CF, CC	0.80 - 0.90
OP, OG, MUL, MU, MRO, MO	0.70 - 0.80
Industrial	
IR, IG	0.60 - 0.90

Note: For specific zoning classifications, the lowest range of runoff coefficients should be used for flat areas (areas where the majority of the grades and slopes are 2-percent and less). The average range of runoff coefficients should be used for intermediate areas (areas where the majority of the grades and slopes are from 2 percent to 7 percent). The highest range of runoff coefficients should be used for steep areas (areas where the majority of the grades and slopes are greater than 7 percent).

Reference: Coefficient values adapted from DeKalb County (1976). Zoning classification data derived from Zoning Regulations of the Metro Government of Nashville and Davidson County, Tennessee (September 1987).

Table 2-4
DESIGN STORM FREQUENCY FACTORS
FOR PERVIOUS AREA RUNOFF COEFFICIENTS

<u>Return Period (years)</u>	<u>Design Storm Frequency Factor, X_T</u>
2 to 10	1.0
25	1.1
50	1.2
100	1.25

Reference: Wright-McLaughlin Engineers (1969).



February 18, 1993

Mr. Phil Morales
Branch Manager, Permitting Section
California Integrated Waste
Management Board
8800 Cal Center Drive
Sacramento, California 95826

RE: CIWMB Review of CEPA Tentative Authority
to Construct Pursuant to AB 240

Dear Mr. Morales:

This will confirm the discussions between the California Integrated Waste Management Board (CIWMB) and the Campo Environmental Protection Agency (CEPA) staff at our meeting on February 10, 1993. These discussions concerned procedures for CIWMB review under the Cooperative Agreement of December 10, 1992, of the Authority to Construct (ATC) and Permit to Operate (PTO) permits which may be issued by CEPA for the proposed Campo Landfill project.

We agreed upon the following categories of potential responses concerning reviews of implementation in the Tentative ATC of specific requirements of the CEPA regulations:

1. Nonconcurrence - CEPA regulatory requirement not met;
2. Concurrence - CEPA regulatory requirement is met;
3. Review of operating issue (subject to revision during review of PTO);
4. No current review of operating issue (deferred to review of PTO);
5. Procedural issue - comment provided for information.

Mr. Phil Morales
February 18, 1993
Page Two

We agreed that review of construction-related items will occur now. These items will not be revisited during review of a PTO unless new information becomes available subsequent to the ATC review which would materially affect a previous determination concerning consistency with a construction-related CEPA regulatory requirement. In other words, there will be a "rebuttable presumption" that construction-related items have been finally addressed at the ATC stage. Construction-related items for which no comment is made will be assumed to be consistent with CEPA regulations.

With regard to operation-related matters, we agreed that staff could choose to review or defer such items during the pending ATC review. For operating items which are commented upon now, staff would not be precluded from further comment during review of a PTO. We would, of course, expect that comments on the same issue will be reasonably consistent at both stages. In any event, CEPA welcomes early notification of concerns regarding potential operating issues.

During the meeting, we reviewed the previously provided comprehensive matrix of CEPA regulations, FEIS mitigations, and related application sections and permit provisions. An additional copy is enclosed. For clarity, we have marked with "PTO" all items we consider to be properly deferred to the PTO review stage. Items marked "PTO/ATC" are matters which could have been deferred but were included in the ATC, or were included in the application and found to meet the requirements of the CEPA regulations. All other items would be considered construction issues reviewable currently.

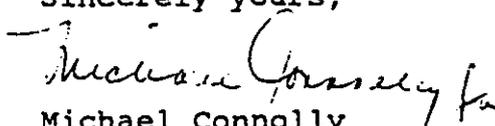
In addition, I enclose a copy of the permit and attached Monitoring Program with "PTO" indicators of items which have been included in the ATC for completeness or early review. If CIWMB staff disagrees with our division of ATC and PTO issues, please notify us at our February 22, 1993 meeting.

Finally, we agreed to provide you with a complete response to the draft CIWMB comments which were previously provided by staff. These responses were transmitted by telefax early yesterday with additional copies delivered this morning under separate cover.

Mr. Phil Morales
February 18, 1993
Page Three

Please let me know if you have any questions concerning the foregoing. Thank you for your cooperation.

Sincerely yours,


Michael Connolly
Chairman, CEPA

Mc/sac
Enclosures

cc: Robert Conheim, CIWMB
Bernie Vlach, CIWMB
Karen O'Haire, SWRCB
James Giannopoulos, SWRCB
Rich Boylan, SWRCB
Art Coe, SDRWQCB
Mike Kenny, ARB
Renaldo Crooks, ARB
Mike Lake, SDCoAPCD
Alberto Abreu, SDCoAPCD

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CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

300 Cal Center Drive
Sacramento, California 95826



March 10, 1993

Mr. Michael Connolly, Director
Campo Environmental Protection Agency
1779 Truck Trail
Campo, CA 91906

Subject: Staff Comments on Tentative Authority to Construct,
Campo Solid Waste Facility, Facility No. 37-AT-0001

Dear Mr. Connolly:

CIWMB staff has completed its review of the adequacy of your response to our comments on your Tentative Authority to Construct (ATC) for the subject facility; please find our determinations as an attachment to this letter. If you are in agreement with our determinations, we find that there are no outstanding issues that require resolution prior to the public hearings of our Board scheduled for March 26, 1993 and March 31, 1993. Please be aware, however, that there remain several technical issues that will need to be resolved prior to consideration by our Board of any Permit to Operate (PTO) for the same facility. These are identified in our attached determinations.

You should also be aware that the staff's review does not include a determination on the adequacy of the ATC to mitigate any water quality issues. As a matter of process, that determination has been deferred to the State Water Resources Control Board which is conducting its own review.

Thank you very much for the opportunity to work with you on the implementation of the Cooperative Agreement. I am hopeful that any remaining issues will be satisfactorily resolved. If you have any questions, please call me at (916) 255-2460.

Sincerely,

A handwritten signature in cursive script that reads "Bernard R. Vlach".

Bernard R. Vlach
Supervising Waste Management Specialist

Attachment

cc: Paul Helliker, Cal/EPA
James Giannopoulos, SWRCS

C. The following comments address the Solid Waste Facility Permit to Construct.

1. Adequacy of response is deferred to Permit to Operate.
2. Please amend the ATC to reflect the public hearing date as February 5, 1993.
3. Adequacy of response is deferred to Permit to Operate.
4. Adequacy of response is deferred to Permit to Operate.
5. CEPA's comments adequately address CIWMB staff comment.
6. Adequacy of response is deferred to Permit to Operate.
7. Adequacy of response is deferred to Permit to Operate.
8. Adequacy of response is deferred to Permit to Operate.
9. Adequacy of response is deferred to Permit to Operate.
10. Adequacy of response is deferred to Permit to Operate.
11. Adequacy of response is deferred to Permit to Operate.
12. Adequacy of response is deferred to Permit to Operate.
13. CEPA's comments adequately address CIWMB staff comment.
14. Adequacy of response is deferred to Permit to Operate.

D. Drainage and Erosion Control - Adequacy of response for each comment is deferred to the Permit to Operate.

E. Leachate Control - Adequacy of response for each comment is deferred to the Permit to Operate.

F. Landfill Gas Collection and Monitoring - Adequacy of response for each comment is deferred to the Permit to Operate.

G. Slope Stability - Staff has remaining unresolved concerns about slope stability issues. The time remaining prior to consideration of the Authority to Construct by the Committee and the Board is not sufficient to adequately resolve these issues. Board staff's concerns on issues of slope stability relate to the final site face configuration and the berm and

March 10, 1993

slopes in the native materials along the eastern boundary of the landfill. In phone discussions with CEPA staff, it was determined that construction would begin in the northwest portion of the proposed facility in cell number one. Since construction along the eastern boundary is not initially proposed, staff have determined that the resolution of these issues can be deferred to the Permit to Operate provided construction is not initiated along the eastern boundary prior to resolution of the slope stability issues. Therefore, we are informing you of our intention to defer the resolution of the slope stability issues and staff recommendations to the Board concerning these issues until consideration of the Permit to Operate.

Although we have determined that these issues do not have to be resolved prior to consideration of the Authority to Construct, we expect that CEPA and the project proponent will continue to work with Board staff to expedite the resolution of all of the remaining issues during the intervening period prior to the submittal of the Permit to Operate.

- H. Closure and Postclosure Maintenance Plans - Adequacy of response for each comment is deferred to the Permit to Operate.
- I. Closure and Postclosure Maintenance Cost Estimates - Adequacy of response for each comment is deferred to the Permit to Operate.
- J. Compliance with Minimum Standards
 - 1. CEPA's comment states the ATC will be amended to include CIWMB staff comment, but CEPA also identified this as a Permit to Operate issue. Adequacy of response is deferred to the Permit to Operate.
 - 2. Adequacy of response is deferred to the Permit to Operate.
 - 3. CEPA's comments adequately address CIWMB staff comment.
- K. Financial Assurances - Adequacy of response is deferred to the Permit to Operate.

March 10, 1993

Determinations of Adequacy of Response to Comments by CIWMB on
Tentative Authority to Construct, Campo Solid Waste Facility,
Facility No. 37-AT-0001

A. Application Form (SF 0001 6/92)

1. CEPA's comments adequately address CIWMB staff concerns.
2. CEPA's comments adequately address CIWMB staff concerns.
3. CEPA's comments adequately address CIWMB staff concerns.
4. CEPA's comments adequately address CIWMB staff concerns.
5. CEPA's comments adequately address CIWMB staff concerns.
6. CEPA's comment states the ATC will be amended to include CIWMB staff comment, but CEPA also identified this as a Permit to Operate issue. Adequacy of response is deferred to Permit to Operate.
7. CEPA's comments adequately address CIWMB staff concerns.

B. The following Comments address the information required in a RDSI (permit application):

1. CEPA's comments adequately address CIWMB staff comment.
2. CEPA's comments adequately address CIWMB staff comment.
3. CEPA's comments adequately address CIWMB staff comment.
4. Adequacy of response is deferred to Permit to Operate.
5. Adequacy of response is deferred to Permit to Operate.
6. Adequacy of response is deferred to Permit to Operate.
7. Adequacy of response is deferred to Permit to Operate.
8. Adequacy of response is deferred to Permit to Operate.
9. Adequacy of response is deferred to Permit to Operate.
10. Adequacy of response is deferred to Permit to Operate.
11. CEPA's comment for P adequately address CIWMB staff comment. Defer other comment to PTO.
12. Adequacy of response is deferred to Permit to Operate.

March 10, 1993

December 2, 1992

Campo Environmental Protection Agency
Tentative Authority to Construct
December 2, 1992

I. Definitions

Definitions of terms used in this Permit shall be the same as set forth in IV Campo Tribal Regulations (CTR) § 400.01 and V C.T.R. § 500.01. The following definitions shall also apply:

- A. "Applicant" means Mid-American Waste Systems, Inc.
- B. "Application" or "Applications" means those documents described in Sections II A, C and D of this Permit.
- C. "BIA" means the Bureau of Indian Affairs, U.S. Department of Interior.
- D. "Construction Quality Assurance (CQA) Monitor" means the independent third party firm retained by Permittee to conduct monitoring of construction as referenced in Volume 2, Binder 8, Attachment B of the Application.
- E. "Construction Quality Assurance Testing and Inspection Program" means the plan prepared by Permittee referenced in Section 6.2.2 of Volume 2, Binder 8, Attachment B of the Application.
- F. "FEIS" means the Final Environmental Impact Statement prepared by the Bureau of Indian Affairs pursuant to the National Environmental Policy Act, 42 U.S.C. §4321 - 4370(a) (1988).
- G. "Landfill Phase" or "Phase" means one of the nineteen (19) areas of the proposed landfill as described in the Application which will be excavated and lined consecutively, allowing staged development of the Landfill.
- H. "Permittee" means collectively Mid-American Waste Systems, Inc. (MAWS) and Muht-Hei, Inc. (MHI).
- I. "Permittee's Design" means the design, plans and specifications contained in the Application.
- J. "Project" or "Landfill" mean the solid waste disposal facility described in the Application.

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- K. "Tribal Codes" means the Tribal Environmental Protection Act and the Solid Waste Management Code of 1990.
- L. "Tribal Regulations" means regulations adopted pursuant to the Tribal Codes.
- M. "Construction Work Plan" means the work plan prepared by the construction contractor for Permittee as referenced in section 4.1 of Volume 2, Attachment A, Binder 3 of the Application.

II. Introduction

- A. In February, 1992, Mid-American Waste Systems, Inc. submitted to the Campo Environmental Protection Agency ("CEPA") an Application (No. 92-01) for a permit to construct a Class III solid waste landfill ("Landfill") as part of an integrated solid waste management project. The Application was found incomplete on March 30, 1992. A revised Application was submitted in August 1992. Addenda were submitted in September and October 1992. The Application was found complete on November 13, 1992.
- B. The Landfill and ancillary facilities would cover approximately 600 acres in Sections 10 and 15, Township 18 South, Range 6 East in the Tijuana Hydrologic Unit, Campo Indian Reservation ("Reservation"). A site map and plot plan are included in the Application. The area of the site receiving wastes (disposal area) will be approximately 400 acres.
- C. The Application includes the following supplemental information:
 - 1. Addendum I to the Application, prepared by Applicant and dated September 3, 1992;
 - 2. Letter to CEPA from Applicant, dated September 21, 1992;
 - 3. Addendum II submitted October 15, 1992.
- D. The Application addresses Disposal Facility Characteristics and Water Quality Monitoring (Volume 1); Design Report, Construction and Inspection Procedures, Operations Plan, and Preliminary Closure and Post-Closure Maintenance Plans (Volume 2); and a proposed Landfill Gas Collection System (Volumes 3A and 3B). The Application seeks authorization to construct the Landfill. Applicant intends to submit an

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additional application authorizing operation of the Landfill. This Permit does not authorize disposal of waste.

- E. CEPA reviewed and considered the following additional documents:
1. Alternative Site Study for the Proposed Campo Landfill Project with a Preliminary Geologic and Hydrogeologic Evaluation of the Preferred Site, prepared by Dames & Moore and dated January 15, 1992;
 2. Draft and Final Environmental Impact Statements ("DEIS" and "FEIS," respectively) for the Campo Solid Waste Management Project prepared by Science Applications International Corporation ("SAIC") on behalf of the Bureau of Indian Affairs ("BIA") and dated February 1992 and November, 1992, respectively;
- F. The BIA anticipates the issuance of a Final Environmental Impact Statement ("FEIS") on December 4, 1992, in accordance with the National Environmental Policy Act, 42 U.S.C. §§ 4321-4370(a) (1988). CEPA has acted as a Cooperating Agency in the National Environmental Policy Act (NEPA) process and has determined that the FEIS adequately addresses the potential environmental impacts and mitigation measures for the proposed Landfill.
- G. In February 1991, after a public hearing and an opportunity for state agency and public comment, the Campo Band adopted Title V of the Code of Tribal Regulations ("C.T.R."), providing comprehensive regulations governing solid waste management. In March 1992, the Campo Band amended Regulations in Title V, and adopted emergency regulations in Title IV of the C.T.R. (concerning evaluation and control of air emissions). The United States Environmental Protection Agency ("EPA") and CEPA have reviewed the CEPA Regulations to determine their consistency with the October 1991 EPA municipal solid waste landfill regulations (40 C.F.R. Parts 257 and 258). Title V was amended in July 1992, and Title IV was amended in emergency regulations adopted in July 1992. Subsequent to EPA's review of Title V of the C.T.R., the amendments adopted in March and July 1992 brought the Regulations into full compliance with Parts 257 and 258. The requirements of Titles IV and V have been found by relevant agencies of the State of California to be at least as stringent as the requirements of state regulations.
- H. CEPA has determined that the Landfill as proposed in the Application will comply with the criteria specified under the Tribal Codes and Regulations and the Code of Federal

December 2, 1992

Regulations, Part 258, applicable to the siting of a Class III landfill.

- I. CEPA, at a public meeting conducted (specify date), heard testimony and considered all comments pertaining to the proposed Project.
- J. CEPA hereby grants Permittee permission to construct a Class III landfill and appurtenant facilities and equipment, all as described in the Application, to be located at a location within the Campo Reservation, Sections 10 and 15 of Township 18 South, Range 6 East, San Bernardino Baseline & Meridian, subject to the conditions of this Permit. **THIS PERMIT DOES NOT AUTHORIZE ACCEPTANCE OF WASTE.** The Landfill is generally described as follows:

The facility consists of a Landfill capable of accommodating approximately 3,000 tons of municipal solid waste per day over the anticipated operational period of approximately 30 years. The anticipated ultimate capacity of the proposed facility is estimated at approximately 40 million cubic yards. The proposed site would be developed as a series of approximately 18 to 20 acre phases. Each phase will be sequentially closed as waste filling operations are completed.

Ancillary facilities to be constructed include scale houses, an administrative building, maintenance facilities, and a railroad spur and siding. The base of the proposed facility will be excavated to a depth not closer than five feet above the highest anticipated seasonal and long-term groundwater level. The material to be excavated is highly weathered tonalite and minor alluvium.

The facility will include a double liner system. This will be composed of secondary and primary liner systems to prevent potential migration of leachate from disposed material through the containment systems and into the surrounding environment during operation, closure and post-closure periods. The planned liner system and proposed monitoring system will allow the Permittee to collect any leachate generated, detect a potential leak, and carry out remedial actions.

The proposed facility will be designed and constructed such that some surface water runoff will be directed into sediment catch-basins at two northwest-trending drainages via culverts beneath the railroad tracks. Some surface runoff will be routed to a west-directed drainage adjacent to the north boundary of the facility. The remaining runoff

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will be directed into a culvert and sediment catch-basin located along the drainage trending south of the east-west ridge extension.

All precipitation within the area of the active cells of the Campo Landfill will be collected and managed as leachate. Surface runoff from the active waste areas will be collected and treated as leachate. Precipitation falling on completed cover will be collected and carried to the perimeter of the Landfill by means of surface water control ditches and large storm drains. Beyond the perimeter of the Landfill, this water will be temporarily retained in sedimentation basins designed to collect eroded surface sediments.

The facility will include a landfill gas collection and monitoring system (including perimeter monitoring) to detect and collect any Landfill gas generated within the facility. Collected gases will be combusted in the Landfill flare system.

- K. Permittee shall comply with all requirements of the Tribal Codes and Regulations. Citation in this Permit to certain provisions of the Regulations shall not be deemed to waive compliance with all applicable provisions of the Regulations.
- L. Permittee shall construct the Landfill and install equipment in accordance with the data, specifications, and engineering drawings submitted in the Application approved by CEPA and incorporated by reference herein and made a part hereof. The Permittee shall comply with the construction standards imposed by V C.T.R. §§ 530.31-530.38, and with the design standards imposed by V C.T.R. §§ 530.11. Permittee shall not substitute equipment, nor make design or operational changes, except with the written approval of CEPA, upon a showing of compliance with the Tribal Codes and Regulations, and the provisions of this Permit. If at any time conditions are observed or determined to differ from those conditions described in or assumed by the Application, Permittee shall notify CEPA immediately of the actual site conditions and shall obtain CEPA approval of any adjustments and modifications prior to implementation. Permittee shall appropriately modify the Application and any pertinent engineering drawings, and submit revisions to CEPA.
- M. Permittee shall not grade, except as necessary for sediment control, on the western and southern side of the SD&IV railroad; north of 167100 Northing, east of the north-south trending east ridge 1968500 Easting, with the exception of the outside slope of the east ridge perimeter road, and

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northeast of the line running from the northernmost 3700' peak at the bearing of 330° (NNW) to existing 3625', or outside the area shown on the key map - drawing G101 of the Application. Permittee shall not install a finished surface for waste deposition below 3519' MSL, nor below the elevations shown on drawings C122 and C123 of the Application.

- N. Facilities for receiving, handling, treatment, composting, or disposal of hazardous waste, are prohibited on the Campo Indian Reservation. V C.T.R. § 505.11. Designated waste, as defined in V C.T.R. § 500.01, may be discharged only at Class II solid waste facilities. Solid waste that is not nonhazardous and is not designated waste may be discharged at a Class III disposal facility. The disposal of designated waste at the Landfill is prohibited, and the Landfill is hereby classified as a Class III disposal facility.
- O. Based on an average tonnage of 3,000 tons per day, the Landfill would operate until 2024. Permittee shall not deposit more than approximately 3,000 tons per day in the Landfill. Permittee may apply to CEPA for a temporary waiver of this limitation to provide for emergency conditions or temporary increases in waste deliveries following holiday periods.

III. General Environmental Site Characteristics

- A. The soils at the Landfill site are generally poorly developed and distributed as a thin surface veneer. These soils are predominantly developed on decomposed tonalite and are typically composed of fine- to medium-grained silty sands of angular to sub-rounded quartz, biotite, and plagioclase grains, and contain very minor quantities of organic material. Based on composition, most soils in the study area are classified under the Unified Soil Classification System (USCS) as medium dense, unconsolidated, non-plastic, brown to yellowish brown silty sands (SM) with approximately 25 to 35 percent by volume silt. Local occurrences of clayey sands (SC), sandy or silty clays (CL), and gravelly sands (SW) were also observed at the site.
- B. Groundwater depths at the Landfill site range from approximately twenty-five (25) to seventy-five (75) feet below ground surface. Differences in measured depths to groundwater may be attributable to land surface elevation or the geologic horizon in which the well is screened.

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- C. The local geologic structural conditions, fractures, and rock types ultimately govern the groundwater flow regime. Lineaments associated with fracture zones in the area can be categorized by directional orientation as three regionally pervasive sets. The three lineament sets are described and depicted in Section 7.5 and Plate 6 of the Application respectively. The subsurface rock mass at the site is weathered and/or fractured. Three major sets of fractures have been also recognized in the subsurface rock mass beneath the site. The trend of these fracture sets appears to be generally sympathetic to the regional lineaments described above and have north-northeast to south-southwest, northwest to southeast, and east-west trends. The hydrogeologic conditions underlying the study area are dominated by a dual flow system through an upper weathered tonalite residuum and through underlying fracture discontinuities in slightly weathered to unweathered tonalite. Flow rates through the subsurface are variable.
- D. Surface water is not present in the immediate area of the Landfill site except during storm events. The sole occurrences of surface water observed in the study area consisted of an ephemeral spring located approximately 1,400 feet northwest of the western most portion of the Landfill site, and two closely spaced springs located south-southeast of the site in Mexico. On April 29, 1991, water from the ephemeral spring located west of the Landfill was observed to occupy a shallow depression in the ground surface and flow from the spring appeared negligible. Since this time, water has not been observed at this spring. On January 14, 1992, water from the closely spaced springs in Mexico was estimated to be flowing at a combined rate of approximately three gallons per minute. All three of these springs are located in topographically low areas that appear to coincide with regionally extensive lineaments.
- E. The California Regional Water Quality Control Board--San Diego Region ("CRWQCB") defines designated surface water in the Campo Hydrologic Area as being of existing beneficial use for contact and non-contact water recreation, warm fresh-water habitat, and wildlife habitat. (CRWQCB 1979).
- F. The CRWQCB designated groundwater in the Campo Hydrologic Areas as being of existing beneficial use for municipal, agricultural, and industrial purposes, and of potential beneficial use for groundwater recharge. (CRWQCB 1979). Groundwater is rated inferior for irrigation use within localized areas of the Campo Hydrologic Area due to a relatively high sodium concentration.

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- G. Groundwater samples were collected and sampled from twelve (12) soil borings located on or adjacent to the Landfill site. Concentrations of manganese, foaming agents, electrical conductivity, and total dissolved solids exceeded the secondary MCLs for drinking water. These excesses are based upon aesthetic standards and therefore are not toxic concentrations. Concentrations of sulfate exceeded drinking water standards in two samples. Concentrations of sodium in groundwater samples indicated concentrations in excess of the Suggested No Action Response Level (SNARL) for drinking water. California Assessment Metals analyses indicate that concentrations of antimony, arsenic, selenium, and barium exceed the primary MCLs for drinking water. The nickel concentration was equivalent to the proposed primary MCL for drinking water. Concentrations of zinc detected in groundwater samples exceeded the secondary MCL. The majority of the elevated metal concentrations were attributed to local weathering of pegmatite mineralization.

IV. Prohibitions and Requirements

- A. The construction of the Landfill shall not create pollution, contamination, or a nuisance as defined in IV C.T.R. § 440.12 or V C.T.R. § 500.01.
- B. The Permittee shall comply with applicable provisions of the Tribal Codes and Tribal Regulations and this Permit. Any noncompliance with this Permit constitutes a violation of the applicable Tribal Codes and Regulation and may be grounds for an enforcement action, termination, revocation and reissuance, or modification of this Permit under V C.T.R. §§ 590.10-590.16. This Permit does not authorize or allow the construction or operation of any solid waste facility in a manner contrary to any requirement of the Tribal Codes and Regulations or applicable federal law.
- C. The Permittee shall take all reasonable steps required by CEPA to determine the nature and extent of potential adverse impacts on the environment, including such accelerated or additional monitoring as may be necessary.
- D. The Permittee shall at all times operate and maintain properly all facilities and systems of control (and related appurtenances) that are installed or used by the Permittee to comply with the conditions of this Permit. Proper operation and maintenance includes effective performance and adequate laboratory and process controls, including but not limited to appropriate quality assurance procedures.

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- E. A copy of the Application and this Permit shall be maintained at the Landfill and shall be available for review at a location at the Landfill site at all times.
- F. Construction and quality assurance activities must be recorded and maintained at the construction site.
- G. This Permit becomes effective on the date of issuance by CEPA. However, this Permit shall not be effective unless and until BIA approves any lease or sublease required to authorize use of the Project site (as described in Paragraph II, A and the Application) by Permittee for the Project.

V. Specifications

- A. The Permittee shall design, construct, and operate the Landfill to ensure that, in accordance with V C.T.R. § 505.20(b), solid waste will be a minimum of five (5) feet above the seasonal high water table. The Permittee's design plan meets the requirements of V C.T.R. § 505.20(b), and construction of the Landfill must comply with such design.
- B. Bedrock encountered during excavation of fill area must be removed to the depth of the base of the liner elevation. Blasting (i.e., the use of explosives) may not be used to accomplish removal of bedrock without the prior written authorization of CEPA.
- C. The Permittee shall notify CEPA after achieving the base grade of excavation of any phase. The Permittee shall submit 1" = 50' maximum scale geotechnical maps of the exposed bedrock and photo documentation of the exposed bedrock to CEPA. These maps shall include the orientation and description of all macroscale structures (fractures, shear zones, mafic inclusions, and similar significant features of fractures or weathered tonalite).
- D. Permittee shall not build the Landfill above 3708' MSL, nor above the elevations shown in drawing Nos. C160 and C161 in the Application.
- E. Final Landfill side slope grades will not exceed 3 horizontal to 1 vertical.
- F. No on-site fuel storage will be permitted without the prior written approval of CEPA. Permittee must prepare and submit to CEPA a detailed fuel storage facility construction and monitoring plan prior to approval of on-site fuel storage by CEPA.

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- G. Maintenance operations which may result in the generation of hazardous waste or materials will not be permitted without written approval by CEPA. Approval by CEPA may only be obtained subsequent to Permittee preparation of a detailed plan pertaining to handling, storage, and off-site disposal of hazardous waste or materials generated during maintenance operations.
- H. No truck washing will be conducted on-site without the prior written approval of CEPA. Approval by CEPA may only be obtained subsequent to Permittee preparation of a detailed wastewater management plan.
- I. Prior to construction of the liner for any phase, the CQA Monitor must inspect the base and side slopes of the excavation for bedrock outcrops, soft zones, voids, or perched water. CEPA must be notified if test pits or other investigations are conducted following the CQA inspection. CEPA must also be notified if highly permeable fracture or shear zones are identified.
- J. Each of the following components shall be inspected by the CQA Monitor following construction or installation but prior to placement of additional materials:
 - 1. Final exposed bedrock surface;
 - 2. Vadose zone monitoring system;
 - 3. Natural and compacted subgrade;
 - 4. Low permeability soil liner test pad;
 - 5. Low permeability soil liner;
 - 6. Leak Detection System Sumps;
 - 7. Leachate Collection and Removal System Sumps; and
 - 8. Leachate Collection and Removal System pipes.

Permittee shall give CEPA sufficient notice of anticipated completion of the above components so that CEPA may prepare to be on-site without delay to the contractor.

- K. Permittee shall submit to CEPA copies of the Construction Work Plan developed by the Permittee detailing material handling, screening, and stockpiling procedures and locations as well as temporary erosion, drainage, and sediment control practices and any other storm water

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requirements to be used during construction. Construction activities may not commence until approval in writing of the Construction Work Plan is obtained from CEPA.

- L. Permittee shall submit to CEPA copies of the Construction Quality Assurance ("CQA") Testing and Inspection Program referenced in section 6.2.2 of Volume 2, Attachment A of the Application. Liner installation construction activities may not commence until approval in writing of the CQA Testing and Inspection Program is obtained from CEPA.
- M. The CQA Monitor will be independent third party/parties retained by the Permittee and will certify that facility construction has been conducted in accordance with the CEPA approved plans, specifications and this Permit.
- N. A material balance detailing material volumes required for construction and material volumes available on site will be provided for each proposed construction area, prior to the initiation of construction activities in any phase.
- O. The Permittee shall give CEPA sufficient notice of anticipated completion of the following components so that CEPA personnel may be on-site upon completion of the component without delay to the contractor:
 - 1. Low permeability amended soil liner;
 - 2. Secondary synthetic liner;
 - 3. Leak Detection System drainage net;
 - 4. Primary synthetic liner;
 - 5. Leachate Collection and Removal System drainage layer;
and
 - 6. Anchor trenches.
- P. The clay liners shall consist of a mixture of clay and other suitable fine-grained soils and shall be processed and compacted to attain a permeability of not greater than 1×10^{-7} cm/sec when installed. Permittee has proposed use of a mixture of bentonite and native soils to meet this requirement. CEPA approves this proposal in accordance with V C.T.R. Sec. 505.01(b) as an acceptable alternative to compliance with V C.T.R. 530.33.

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Additional testing utilizing on-site soils and bentonite will be conducted prior to construction to confirm the exact percent bentonite required to achieve the 1×10^{-7} cm/sec permeability performance standard. The results of material testing will be submitted to CEPA prior to liner construction.

- Q. The uppermost geotextile proposed for the liner system shall be UV stable with regard to the intended application.
- R. The liners shall be installed so as to cover all natural geologic material at the disposal area so that there is no contact between the geologic materials and solid waste or leachate. V C.T.R., § 530.33.
- S. The Flexible Membrane Liner shall meet the specifications and shall be installed in accordance with the proposed Construction Quality Assurance Program in Attachment B of Volume 2, Binder 8, of the Application.
- T.
 - 1. The primary leachate collection and removal system (LCRS) shall be built into the primary liner system and shall be constructed, maintained, and operated to collect and remove twice the maximum anticipated daily volume of leachate from the landfill. The Permittee's design plan meets the requirements of V C.T.R., Sec. 530.34, and construction of the LCRS system must comply with such design.
 - 2. The leachate detection system (LDS) shall be installed between the primary and secondary liner and shall be constructed, maintained, and operated to collect and remove twice the maximum anticipated daily volume of leachate from the Landfill. See V C.T.R. § 530.34. The Permittee's design plan meets the requirements of V C.T.R., § 530.34, and construction of the leachate detection and removal system must comply with such design.
 - 3. The LCRS and LDS shall consist of permeable subdrain layers of sufficient strength to prevent collapse under the pressures exerted by overlying solid waste, cover material, and any equipment used at the Landfill. The Permittee's design plan meets the requirements of V C.T.R. § 530.34 and construction of the LCRS and LDS must conform with such design.
 - 4. Records of actual leachate generation rates for active and closed Landfill conditions will be maintained

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throughout the active, closure, and post-closure maintenance period of the site. The results of monitoring will be reviewed and compared to the anticipated generation rates provided in the Preliminary Closure Plan on an annual basis. Post-closure maintenance cost estimates will be reviewed and revised as necessary to reflect site specific leachate generation rates.

5. Fluid level measurements in both the LCRS and LDS collection sumps will be obtained and recorded on a daily basis for the initial year of Landfill operation. Leachate detection equipment will also be inspected/tested on a weekly basis. Based on the result from the initial year of leachate level monitoring, a revised monitoring schedule may be prepared for review and approval by CEPA subsequent to the first year of monitoring.
- U.
1. The Permittee shall construct the Landfill and containment structures to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, and overtopping, and to accommodate the anticipated volume of precipitation and peak flows from surface runoff in the event of a twenty-four hour storm with a 100-year return period. V C.T.R. § 530.36. The Permittee's design plan meets the requirements imposed of V C.T.R. § 530.36, and construction of the Landfill and containment structure must comply with such design.
 2. The Permittee shall direct surface drainage from outside the Landfill away from the Landfill. V C.T.R. §530.36(d). The Permittee's design plan meets the requirements of V C.T.R. § 530.36(d), and construction of the Landfill must comply with such design.
 3. Sediment basins shall be constructed and operated to maintain a minimum freeboard of 1.5 feet at all times.
- V. Permittee shall comply with EPA stormwater National Pollutant Discharge Elimination System (NPDES) requirements. Permittee shall provide CEPA with documentation of timely compliance with NPDES requirements.
- W. Water collected from the LCRS or which has come into contact with waste may be used for dust control and other activities within the active portion of the Landfill site only after the water has been determined by CEPA to be nonhazardous

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1. The Permittee shall design and construct a system to collect and manage precipitation on the Landfill that is not diverted by cover or drainage control systems through the leachate collection and removal system, which shall be designed and constructed to accommodate a twenty-four (24) hour storm with a 100-year return period. V C.T.R. §530.36(c). The Permittee's design plan meets the requirements of V C.T.R. § 530.36(c) and the Permittee must construct the Landfill to comply with such design.
 2. Runoff from the active face of the Landfill shall not cause a discharge of pollutants into the waters of the United States, including wetlands. V C.T.R. §530.36(e).
-
- X. Permittee has submitted as part of its Application a proposed water quality monitoring program (Appendix K to Volume 1 of the Application, dated October 15, 1992). CEPA approves the proposed monitoring program as meeting the provisions of Title V C.T.R. subject to the conditions in the Monitoring and Reporting Program attached to this Permit.
 - Y. Permittee shall construct and operate the monitoring system in accordance with the plans and specifications set forth in the Application.
 - AA. Annually, before the anticipated rainy season but not later than October 31, the Permittee shall implement any necessary erosion control measures and complete any necessary construction, maintenance, or repairs of precipitation and drainage control facilities to prevent erosion.
 - AB. Specifications pertaining to the proposed erosion control fabric to be used at the Landfill will be submitted to CEPA for review and approval prior to placement.
 - AC. The Permittee shall construct the Landfill to withstand the maximum horizontal acceleration associated with the maximum credible earthquake without damage to the foundation or to the structures that control leachate, surface drainage, erosion, or gas. V C.T.R. § 530. 37. The Permittee's design plan meets the requirements of V C.T.R. § 530.37, and construction of the Landfill must comply with such design.
 - AD. Daily cover will consist of a compacted 6-inch soil cover. The use of alternative covers must be approved by CEPA in writing prior to use. Approval by CEPA may only be obtained subsequent to a demonstration by the Permittee that the

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proposed material will provide equal or superior performance to the compacted 6-inch soil cover.

- AE. The Permittee shall confine the active Landfill area to the smallest area practicable based on the anticipated quantity of solid waste to be disposed of per day.
- AF. QA/QC acceptance testing shall be conducted according to the methods and frequencies specified below.

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Subgrade inspection and testing shall be as follows:

Parameter	Test Method	Minimum Frequency
Percent Compaction	ASTM D2922	1 per acre on scarified and recompacted natural soil subgrade and 2 per acre on compacted fill
Compaction Curve*	ASTM D1557	1 per 5 acres
Preparation of previously compacted lift	Observation	Full Coverage

Materials acceptance testing for low permeability soil liner material shall be as follows:

Parameter	Test Method	Minimum Frequency
Percent Fines *	ASTM D1140	1 per 5,000 cu yds of native materials
Liquid and Plastic*	ASTM D4318	1 per 5,000 cu yds of liner materials
Water Content *	ASTM D4643	1 per 5,000 cu yds of liner material
Hydraulic Conductivity	ASTM D5084-90	1 per soil type **
Moisture-Density*	ASTM D1557	1 per 25,000 cu yds and 1 per soil type
Construction	Observation	Full-Time

- * If testing shows the material to be consistent, the testing frequency may be decreased upon approval by CEPA.
- ** A significant change in particle size distribution grain size, percent fines, or plasticity index will constitute a change in soil type.

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Testing parameters for the low permeability soil liner test pad shall be as follows:

Parameter	Test Method	Minimum Frequency
Hydraulic Conductivity	Double Ring Infiltrometer	2 Per test pad
Hydraulic Conductivity	ASTM D5084-90	2 per test pad
Moisture-Density	ASTM D1557	2 per test pad

Acceptance testing for the low permeability soil liner shall be as follows:

Parameter	Test Method	Minimum Frequency
Water Content	ASTM D3017	2/acre/lift and at least 1 per 1000 cu yds
Density	ASTM D2922	2/acre/lift and at least 1 per 1000 cu yds
Construction Oversight	Observation	Full-Time

Prior to construction of the composite liner and leachate collection system, the Applicant will conduct the appropriate field or laboratory shear and transmissivity tests using actual materials proposed for construction to confirm stability of the liner/collection (the test pad) system configuration. Test results shall be submitted to CEPA, along with other test pad results, for approval prior to liner construction.

AG. Water Supply. Prior to the start of construction, a plan shall be prepared and approved by the BIA and CEPA for obtaining water from the identified wells on the reservation. This plan shall address the following points:

1. The record of historic usage of the identified wells must be documented and, to the extent known, the impact of historic use of the identified wells on surrounding wells should be documented.

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2. The extent of the aquatic, wetland, and riparian habitats within 1.5 miles down gradient (a 30° sector centered southward) of the well(s) used shall be mapped and annotated. Similar documentation shall be prepared for a control area along Campo Creek upstream of the Tribal Center.
3. A monitoring program to record water level in the well(s) used shall be implemented. If well water level measurements indicate a significant drop in groundwater level, nearby monitoring wells shall be established to determine the extent of the cone of depression and any down gradient effects. A significant drop is indicated by the need, after proper initial testing and installation, to relocate the pump in order to continue production. If down gradient effects are observed, the degree of impact on aquatic, wetland, and riparian habitats should be evaluated by comparison of the changes observed in the down gradient sector to those in the control area. Down gradient effects are defined as any change in groundwater level one-half mile down gradient of the well in use when the well in use is started and stopped over a 7-day period. For this comparison, seasonal effects should be included by making the comparison of changes both in early spring and early fall.
4. Based on the degree of impacts, the plan must require distribution of well usage, rotation of usage, or other measures which would reduce any impacts to insignificance.

VI. Preliminary Closure Provisions

The following provisions relating to closure are included for the guidance of the Permittee. These provisions shall be further reviewed and supplemented, as appropriate, upon application for and consideration of a Permit to Operate.

- A. The Permittee shall comply with all applicable requirements of the Code of Tribal Regulations for partial and final closure and the post-closure maintenance plan for the Landfill. V C.T.R. § 505.34.
- B. Permittee shall prepare and implement a revised "Operations Plan" and a revised "Closure Plan" that provide for a series of partial closures. Each partial closure shall not be greater than 50 acres in size. "Partial closure" shall

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include at least (1) placement of final cover; (2) final grading; and (3) final revegetation.

- C. Finished phases must be covered with a minimum of 60 inches of native soil. The soil shall be salvaged from one or more phases for use specifically in revegetation.
- D. Permittee shall install, in the final cover, an additional liner of 12 inch thick low permeability soil compacted to a permeability of 1×10^{-7} cm/sec. This low permeability soil liner shall be installed immediately beneath the proposed 40 mil VLDPE liner and above the 24 inch foundation layer. The installation shall be such as to result in a composite liner of VLDPE and low permeability soil.
- E. Permittee will accomplish revegetation through seeding with native species, using seeds collected from the Project area. The revegetation plan shall include provisions for seeds to be collected during appropriate seasons from native shrubs and any known colonies of sensitive plants in future impact areas. Permittee shall use these materials to the extent possible in revegetation of finished phases situated nearby in areas of similar vegetation. Non-native plant species will not be used for revegetation of the site.
- F. A monitoring program shall be designed and implemented to evaluate the results of revegetation efforts. Species composition, cover, wildlife use of the area, and the abundance of any sensitive species appearing on each phase undergoing revegetation shall be assessed.
- G. Cattle grazing shall be prohibited on revegetated areas; vehicular traffic shall be prohibited on finished phases undergoing revegetation.
- H. The Permittee shall develop a long-term management plan for chaparral on the Landfill, to provide for periodic regeneration of species normally dependent on fires or restricted to openings in chaparral.
- I. Permittee shall submit a plan for emergency response during the post-closure maintenance period of the waste management facility.
- J. The Preliminary Closure Plan must comply with the mitigation measures set forth in the FEIS which are applicable to final closure, including measures regarding topography, living resources, water quality, and air quality.

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VII. Air Quality Requirements

- A. Permittee shall install the first (lowest) horizontal gas collector in a subphase (line) less than 365 days after beginning the filling of any 200'-wide subphase (line). Permittee shall install the first (lowest) horizontal gas collector in a new subphase before he reaches 40' deposited elevation in that subphase. Permittee shall not build the waste line more than 40' above a horizontal collector unless Permittee installs another horizontal gas collector above the existing horizontal collector.
- B. Permittee shall connect any horizontal gas collector to the gas collection header within one week of installation of the collector in the waste. Permittee shall install a tap for measuring collector pressure or sampling collector gas and an isolation valve on each horizontal collector near the point where the collector emerges from the Landfill, before the collector joins the header or other collectors.
- C. Permittee shall not deposit waste in the Landfill until:
1. Permittee has installed the Landfill Gas Collection Phase ("LGC Phase") I perimeter gas monitoring wells;
 2. Permittee has installed the LGC Phase I perimeter gas collection header;
 3. Permittee has installed the LGC Phase I perimeter paved haul road; and
 4. Permittee has submitted and CEPA has approved a fugitive gas monitoring protocol.
- D. Permittee shall install the LGC Phase I gas blowers (500 CFM each) and the LGC Phase I flare (16 MMBTU/h) and connect them to the gas collection header within one year of the date of first acceptance of waste at the Landfill. Permittee shall not deposit waste in the Landfill for more than one year unless Permittee installs the LGC Phase I gas blowers and the LGC Phase I flare and connects them to the gas collection header.
- E. Permittee shall not deposit waste in Landfill phases 4, 5, 6, 7 or 8 until:

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1. Permittee has installed the LGC Phase II perimeter gas monitoring wells;
 2. Permittee has installed the LGC Phase II perimeter gas collection header; and
 3. Permittee has installed the LGC Phase II perimeter paved haul road.
- F. Permittee shall not deposit waste in Landfill phases 9, 10, 11, 12, 13, 14 or 15 until:
1. Permittee has installed the LGC Phase III perimeter gas monitoring wells;
 2. Permittee has installed the LGC Phase III perimeter gas collection header; and
 3. Permittee has installed the LGC Phase III perimeter paved haul road.
- G. Permittee shall not deposit waste in Landfill phases 16, 17, 18 or 19 until:
1. Permittee has installed the LGC Phase IV perimeter gas monitoring wells;
 2. Permittee has installed the LGC Phase IV perimeter gas collection header; and
 3. Permittee has installed the LGC Phase IV perimeter paved haul road.
- H. Permittee shall install the LGC Phase II gas collection blowers (two 2000-CFM, 30-hp) within six months after the Landfill gas flowrate reaches 650 MSCFD (thousand standard cubic feet per day).
- I. Permittee shall install the LGC Phase III gas collection blowers (two 5000-CFM, 100-hp) within six months after the Landfill gas flowrate reaches 2.7 MSCFD (million standard cubic feet per day).
- J. Permittee shall install the LGC Phase II flare (123 MMBTU/h) within six months after the Landfill gas flowrate reaches 650 MSCFD.
- K. Permittee shall install the LGC Phase III flare (123 MMBTU/h) within six months after the Landfill gas flowrate reaches 3.5 MSCFD.

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- L. Permittee shall install a flare (of size, make, and performance approved by CEPA) within six months after the Landfill gas flowrate reaches 7.2 MMSCFD.
- M. Permittee shall install a gas flowmeter and flow recorder on the perimeter header inlet to the flare station.
- N. Permittee shall install a temperature controller on the flare exhaust which automatically controls the air admitted at the aspirated air louvers. Permittee shall install a temperature recorder to record this temperature versus time.
- O. Permittee shall install an oxygen analyzer/monitor on the gas inlet manifold.
- P. Permittee shall install a low temperature flare-feed shutoff on each flare. Permittee shall install a flame-out flare-feed shutoff on each flare.
- Q. Permittee shall notify CEPA before covering each phase of the gas collection header. Permittee shall notify CEPA before excavating waste to install each horizontal collector.
- R. Permittee shall submit as-built drawings of the perimeter gas monitoring wells and Phase I perimeter gas collection header within 90 days after completion of construction of the phase.
- S. Permittee shall submit as-built drawings of the LGC Phase I flare station within 90 days after installation of the flare and blowers.
- T. Permittee shall submit as-built drawings of the Phase II perimeter gas monitoring wells and perimeter gas collection header within 90 days after completion of construction of the phase.
- U. Permittee shall submit as-built drawings of the Phase III perimeter gas monitoring wells and perimeter gas collection header within 90 days after completion of construction of the phase.
- V. Permittee shall submit as-built drawings of the Phase IV perimeter gas monitoring wells and perimeter gas collection header within 90 days after completion of construction of the phase.

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- W. Permittee shall provide a gravel base road to within 300 feet of the active face for truck traffic. Truck traffic shall not be allowed to travel on any non-gravel base road except within 300 feet of the active face.
- X. Permittee shall post signs prohibiting vehicles from travelling more quickly than 15 miles per hour on any gravel surface at the Landfill, nor 5 mph on any unimproved (dirt) surface.
- Y. Permittee shall:
1. Apply 1000 gallons of water per mile of road to all paved haul roads at the Landfill each five hours (of use);
 2. Not allow truck traffic on any haul road which has not been watered within the previous five hours;
 3. Vacuum-sweep all paved haul roads once per day of operation; and
 4. Not allow truck traffic on any paved haul road which has not been vacuum-swept within the previous operating day;

unless there has been greater than 0.01 inches of precipitation on the site that working day. Permittee shall record each day the time of vacuum-sweeping. Permittee shall keep the records on-site and present them to CEPA on request.

- AA. Permittee shall, wherever possible, confine equipment or truck travel on unpaved surfaces to highly travelled (compacted) roads or stretches. Permittee shall:
1. Apply 300 gallons of water per mile of road to all unpaved haul roads at the Landfill each hour (of operation); and
 2. Not allow truck or equipment traffic on any unpaved road at the Landfill which has not been watered in the previous hour;

unless there has been greater than 0.01 inches of precipitation on the site that working day. Permittee shall:

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3. Not allow visible dust emissions to exceed 20% opacity at any point more than 10 feet from the road surface at any time;
4. Apply properly diluted chemical dust suppressant at a rate of 600 gallons (of undiluted suppressant) per mile to the surface of all active unpaved haul roads at the Landfill at least once every two weeks; and
5. Not allow trucks or equipment to travel on any unpaved haul road at the Landfill to which suppressant has not been applied within the previous two weeks.

Permittee shall record the date, suppressant type, suppressant strength (dilution ratio), time of application, location of application, and volume applied each time he applies suppressant to the unpaved haul roads. Permittee shall keep the records on-site and present them to CEPA on request. Permittee may develop and submit to CEPA approval an alternative dust control measure designed to achieve at least 90 percent control as compared to uncontrolled conditions. If accepted by CEPA, such program may be submitted for the measures specified in this paragraph.

- AF. Permittee shall apply sufficient water and/or dust suppressant to minimize dust emissions during grading, excavating. Visible emissions from construction activities shall not exceed 20% opacity for more than three minutes in any hour.
- AC. For areas other than unpaved haul roads, Permittee shall apply organic mulches or other soil stabilizers to exposed ground areas that would be left in a disturbed state for more than six months at a time.
- AD. Permittee shall only allow solid waste to be uncovered, exposed to air at the scales area for inspection for less than four hours, in the trucks bound for the active face, or at the active face for less than 12 hours.
- AE. Permittee shall manage excavated waste from regrading, repairs, well-installation so as to prevent odors detectible beyond the property boundaries. Permittee shall cover excavated waste as necessary to prevent the occurrence of a public nuisance. Permittee shall repair Landfill cover as soon as possible after

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completion of repair, regrading, or well installation. Permittee shall cover material transported to other disposal sites to reduce odors to the maximum extent possible. Permittee shall notify CEPA at least two hours before excavating more than 50 cubic yards of waste from the Landfill. Permittee shall include in the notification the location, time duration, volume of waste to be excavated, and proposed odor-migration measures. This condition shall not apply to excavation of waste associated with removal of the uppermost level of previously applied daily cover prior to disposal of waste.

- AF. Permittee shall not allow uncontrolled discharge of leachate from the deposited waste nor condensate from the Landfill gas which might contain odorous, toxic, or volatile organic compounds to reach any surface where those compounds could evaporate into the atmosphere.
- AG. Permittee shall operate the Landfill gas collection blower(s) unless the pressure in the Landfill gas inlet manifold and every gas collector is less than +2 inches of water column gauge. Permittee shall not allow the Landfill gas inlet manifold pressure, nor the pressure in any horizontal Landfill gas collector to rise above +2 inches of water column gauge. Permittee shall only transport Landfill gas to a properly operating flare. Monitoring shall be undertaken at least once per month.
- AH. Permittee shall monitor the Landfill gas oxygen concentration at least once per day when Landfill gas is fed to the flare. Permittee shall adjust the Landfill gas flowrate to prevent overdraw which could result in a fire or explosion.
- AI. Permittee shall not allow the flare exhaust temperature to drop below 1500°F for more than 30 seconds when Landfill gas is being fed to the flare. Permittee shall not allow the flare exhaust temperature to rise above 1800°F when Landfill gas is being fed to the flare. Permittee shall only start the flare up on LPG fuel. Other commercial fuels may be used for start up if prior permission is first obtained from CEPA.
- AJ. Permittee shall not allow the following safety/control instruments to be improperly operating or improperly installed when Landfill gas is being fed to the flare: temperature controller, flame detector, inlet oxygen monitor, flame-out shutoff, high temperature shutoff, low temperature shutoff, feed gas flow meter/recorder,

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- exhaust temperature monitor/recorder, auxiliary fuel supply/burners. Permittee shall inspect, repair, and calibrate the safety/control instruments according to the manufacturers' recommendations. Permittee shall record the date, time, repairer name, instrument identification, description of repair for each repair/calibration event. Permittee shall keep the records on-site and present them to CEPA on request.
- AK. Permittee shall record the date, time, flare gas inlet flowrate at least four times every hour when Landfill gas is being fed to the flare. Permittee shall record the date, time, and the flare exhaust temperature continuously when Landfill gas is being fed to the flare. Permittee shall keep the records on-site and present them to CEPA on request.
- AL. Permittee shall repair, upgrade, or maintain the Landfill soil cover to prevent Landfill gas concentrations from exceeding 500 ppmv measured as methane at any point within 3 inches of the surface of the Landfill (other than momentary, non-repeatable readings).
- AM. Permittee shall inspect the Landfill cover at least once per month with a properly calibrated instrument capable of detecting methane at concentrations of 100 to 1,000 ppmv. Permittee shall record the date, identification of area inspected, identification of instrument, name of inspector, gas concentrations detected, and description of repairs for each inspection. Permittee shall keep the records on-site and present them to CEPA on request.
- AN. Permittee shall inspect the perimeter gas monitoring wells at least once per month. Permittee shall not allow the Landfill gas concentration in any perimeter gas monitoring probe to exceed 1000 ppmv as methane. Permittee shall record the dates, well identifications, inspector identification, methane concentrations, and description of repair activities for each perimeter gas well inspection. Permittee shall keep the records on-site and present them to CEPA on request.
- AO. Permittee shall repair any leaks which cause a concentration (other than momentary, non-repeatable readings) greater than 1375 ppmv measured as methane within 1/2" of any Landfill gas pipe, fitting, well penetration, blower, equipment, flare, etc. Permittee shall not allow the Landfill gas collection header,

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horizontal gas collectors, nor the perimeter gas monitoring wells to be improperly installed or improperly operating.

- AP. Permittee shall inspect the Landfill gas transfer path (exposed pipes, fittings, equipment, well penetrations, blowers, flare shell, etc., containing Landfill gas) at least once per month with a properly calibrated instrument capable of detecting methane at concentrations of 500 to 10,000 ppmv. Permittee shall record the date, identification of area inspected, identification of instrument, name of inspector, gas concentrations detected, and description of repairs for each inspection. Permittee shall keep the records on-site and present them to CEPA on request.
- AQ. Permittee shall analyze the composition of the gas at the flare inlet and flare exhaust on request of CEPA. Permittee shall perform this test in accordance with a CEPA-approved source test protocol. Permittee shall notify CEPA of the test date and time at least two days prior to the test. Permittee shall determine for the inlet gas the flowrate and concentrations of oxygen, carbon dioxide, methane, non-methane organic vapors, and individual toxic organic compounds listed in the table below. Permittee shall determine for the exhaust gas the flowrate and compositions of oxygen, nitrogen oxides, sulfur oxides, carbon dioxide, carbon monoxide, methane, non-methane organic vapors, and individual toxic organic compounds listed in the table below under normal operating conditions. Permittee shall submit a copy of the test report to CEPA. Permittee shall include in the test report the flare exhaust temperature at the time of the test. Permittee may submit a proposal, based upon data collected, to modify the constituents to be tested.

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Toxic Organic Compounds

Benzene
Chloroethene
1,2 Dibromoethane
1,2 Dichloroethane Benzyl Chloride
Chlorobenzene
Dichlorobenzene
1,1 Dichloroethene
Dichloromethane
Formaldehyde
Hydrogen Sulfide
Tetrachloroethylene
Tetrachloromethane
Toluene
1,1,1 Trichloromethane
Trichloroethylene
Trichloromethane
Xylene

and any other substance deemed appropriate by CEPA.

- AR. Permittee shall operate the diesel-driven emergency power generator only for power generation in case of line power failure or for testing/maintenance. Permittee shall not operate the standby generator engine for maintenance/testing purposes for more than 52 hours in any year.
- AS. The engine size of on-site equipment will be the minimum practical.
- AT. Mobile diesel engine equipment that is Permittee-owned or operated shall be operated and maintained in a manner that minimizes oxides of nitrogen emissions. This condition shall not apply to contractor-owned equipment or to equipment that is onsite for less than 90 days at a time.

VIII. Other Required Mitigations

A. Transportation.

1. Construction plans for access road and related drainage facility appurtenances will be prepared by the Permittee and submitted to CEPA for review and approval prior to access road construction.

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2. Permittee must obtain a written determination from CEPA stating that the upgraded road is adequate prior to commencement of operations.
3. The access route for all trucks and construction equipment shall be either Crestwood Road south into the Reservation via Church Road and BIA Route 10 (Access Route A) or use of the Ribbonwood Road Interchange off I-8 to Highway 94 West to the Landfill access road (Access Route B).
4. If delivery of waste is to be primarily by truck rather than rail, and Access Route A is selected:
 - a. Permittee shall provide an analysis of Crestwood/Church Road, prepared by a certified traffic engineer of the road standards necessary to support the weight and volume of truck traffic associated with operation of the Landfill. Traffic engineer analysis is specifically to include determination of need for one or more "runaway truck ramps." Permittee shall complete any upgrade identified in the analysis prior to the commencement of the operation of the Landfill.
 - b. The intersection of the Landfill access road with Highway 94 shall either be located opposite BIA Route 10, or at a location that meets the Caltrans standards.
5. If delivery of waste is to be primarily by truck rather than by rail and Access Route B is selected, Permittee shall provide a deflectometer study, or other evaluation method approved by Caltrans, that evaluates the structural capacity of that section of State Highway 94 between the Ribbonwood Road interchange off I-8 and the Landfill access road, and the data provided to Caltrans and the BIA.
6. If delivery of waste is to be primarily by truck rather than rail:
 - a. A truck safety program shall be implemented by the Permittee. The program shall (i) acquaint Permittee and contract drivers with access routes to be used and route control measures, and (ii) establish a contingency plan (including a list of organizations to be contacted in the event of an accident) for truck accidents in the vicinity of the project.

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b. An agreement shall be made with the Campo Band to include adequate snow and ice control, or the operation shall be conditioned so that trucks, during snow conditions, will only use routes on which there are no chain restrictions on the access route.

7. Permittee shall submit to CEPA for its review an analysis prepared by a certified traffic engineer which evaluates the need for additional turn-out lanes, road signs, or intersection signalization, for roads used between I-8 and the Landfill site. Prior to operation, Permittee shall submit to CEPA certification that all recommended road improvements and any other measures identified by CEPA in its review of the traffic engineer's analysis have been implemented.

B. Resource Use Patterns

1. Permittee shall create a berm on the eastern side, as indicated in the Application that would block the line of sight of the Landfill and activities occurring within the Landfill.
2. To mitigate visual effects caused by the above condition, Permittee shall develop and implement a landscape plan designed to restore a natural appearance to the area. The landscaping plan shall use native species and shall be developed and implemented in consultation with a qualified biologist and qualified landscape architect. Revegetation shall begin as soon as feasible after construction of the berm and shall be monitored for a period of 5 years to ensure that the plants are well established.
3. The land between the east ridge and the eastern lease area boundary shall be maintained in its natural condition. No facilities shall be constructed in this area except those necessary for for monitoring groundwater or other potential impacts of the landfill.

C. Noise.

1. During Landfill construction, excavation equipment shall not operate within approximately 200 feet westward of the existing north-south trending ridge line at the eastern edge of the Landfill site, as indicated by the eastward excavation limit shown on drawings C120 and C121 in the Application. During Landfill operations, equipment transporting,

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depositing, or compacting waste shall not operate at an elevation that is not at least 15 feet below the top of the existing north-south trending ridge line at the eastern edge of the Landfill site or the top of the east ridge berm, whichever is higher. Equipment applying daily, intermediate, or final cover and cap material shall not operate at levels that are not at least 10 feet lower than the east ridge or east ridge berm, whichever is higher.

2. If the waste is delivered by truck and the access route uses BIA/Route 10/Crestwood/Church Road, then Permittee shall construct soundwalls separating reservation residences within 220 feet of BIA/Route 10/Crestwood/Church Road from those sections of the road to be used to access the Landfill if requested to do so by residents and CEPA.

D. Cultural Resources.

1. Construction and road improvements shall be subject to compliance with the conditions set forth in the BIA Record of Decision ("ROD") with regard to the protection of cultural resources.
2. Permittee shall suspend ground disturbance in an affected area until compliance with the ROD has been completed.
3. Emergency procedures shall be developed and shall be implemented if unrecorded cultural resources are encountered during construction or operation of the landfill and related facilities. The procedures will include at minimum:
 - a. Notification of CEPA immediately upon encountering an unrecorded cultural resource.
 - b. Discontinuation of ground disturbance in the affected area until BIA and CEPA can determine whether the cultural resource is potentially significant, according to National Register criteria.
 - c. Implementation of appropriate avoidance or data recovery procedures if the cultural resource is considered potentially significant.
 - d. Preparation and distribution of a pamphlet to all workers to identify procedures in the event that

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cultural resources are encountered during construction.

E. Living Resources

1. The Permittee shall submit a Biological Resources Mitigation Plan as required in section 4.4.5 of the FEIS prior to issuance of a Permit to Operate.
2. The permanent alteration of the natural landscape of the Project site shall be mitigated through vegetative screening of the Landfill slopes and contouring of the Landfill form.
3. The Permittee shall prepare a map and schedule depicting Landfill development, and update these as necessary in order to implement revegetation efforts in a timely fashion. The vegetation resident in each phase prior to its use shall be documented, as well as site-specific revegetation measures. The map and schedule must be submitted to CEPA for its review and approval prior to the commencement of work on the phase.
4. To reduce the impact of the Project on native vegetation, Permittee must submit to CEPA for its approval a revegetation plan, to be implemented in a sequential manner. This revegetation plan should be developed and implemented by a qualified botanist. The plan should incorporate mitigation measures identified in this Permit, and should be updated in consultation with resource agencies as new technology for Landfill revegetation evolves. The revegetation plan must, at a minimum, meet the requirements of CEPA regulations found in Sections 530.11(d), 530.71(e), 530.72(a), 530.87.
5. A commercial seed contractor experienced in the collection and use of native seeds in revegetation projects shall be hired to collect and store seed. Seeds to be included in the mix shall include, at minimum, Eriogonum fasciculatum, Lotus scoparius, Gutierrezia californica, Yucca whipplei, Stipa coronata, Arctostaphylos glauca, Ceanothus greggii, Opuntia spp., and Rhamnus californica. Seeds shall be pretreated if published information (e.g., Emery 1988) indicates that pretreatment is necessary to enhance germination. Seeds to be used shall be tested for number/lb, purity, and germination rates. The rate of application shall be adjusted as necessary to achieve

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net rates of application of viable native shrub seed in excess of 40 viable seeds per square foot, with no more than one-half of the total being contributed by a single species. Seeds collected from locally occurring native herbaceous annuals and perennials shall be added to the seed mix in gross amounts not less than 1 lb/acre.

6. The Permittee shall develop and submit to CEPA for its approval a program to monitor and, as necessary, control the spread of undesirable non-native plant species. The plan must be approved prior to the commencement of operations.
7. The Permittee shall develop and implement a worker education program to educate workers in the identification and protection of sensitive species and to advise of restrictions on off-road vehicle activity. The plan must be approved by CEPA prior to commencement of construction.
8. Access roads and other areas requiring revegetation which are not on the Landfill surface shall be planted with native chaparral species, including deep rooted species. Irrigation shall be provided as necessary to promote seedling establishment.
9. All areas subject to revegetation shall attain sufficient cover for erosion control by the end of the first growing season following seeding/planting, and shall maintain sufficient cover for long-term erosion control thereafter. If this criterion is not met, the areas shall be reseeded, planted, and temporarily irrigated as necessary to ensure that sufficient cover develops during the subsequent growing season. The adequacy of erosion control shall be subject to inspection and confirmation by a CEPA representative.
10. Permittee shall fund implementation of a Habitat Preservation and Management Plan, involving the establishment of a Biological Preserve. The preserve is to be contained within lands designated as Wilderness in the Campo Band's Land Use Plan.
11. Permittee shall establish funding sufficient for the CEPA (1) to manage the preserve areas to the benefit of biological resources affected by development of the Landfill; (2) to compensate tribal members economic losses related to restrictions on land use within the preserve areas; and (3) to conduct studies documenting

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the status of sensitive biological resources on preserve lands.

12. To mitigate impacts on oak trees and woodlands, Permittee shall ensure that ground disturbance shall not occur within the dripline (area beneath the canopy) of mature oak trees. If disturbance within the dripline is unavoidable, Permittee shall request the written approval of CEPA prior to entering the area.
 13. Where disturbance cannot be limited as described in condition 12 above Permittee shall mitigate any damage or removal resulting from the Project by planting 10 vigorous saplings (at least 5 years old) for every tree removed.
 14. Oak replacement shall be sited so as to restore or enhance existing oak woodlands within the Project area including the access road and which are affected by the Project. Oak replacement areas shall be identified in consultation with CEPA.
 15. Any oak tree whose drip line is located within 50 feet of portion of the project road that is required to be graded, and which dies during construction and operation, will be replaced in accordance with conditions VIII.E. 13 and 14.
 16. For any riparian woodlands impacted, the same requirements shall apply with regard to tree replacement. Consultation with CEPA shall be undertaken regarding appropriate site-specific mitigation for any stream crossings.
 17. Permittee shall, in accordance with V C.T.R. Section 530.17(e), establish a program to control pest species such as ravens, including implementation of daily cover for the working face of the Landfill.
 18. The status of rare plants on impacted areas, areas undergoing revegetation, preservation areas, and other tribal lands, shall be periodically reassessed by an experienced botanist throughout the lifetime of the Project. A thorough evaluation shall be conducted at least every three years.
- F. Other Values. The Permittee shall submit a proposed random load check program which must be approved by CEPA prior to the issuance of a Permit to Operate. The Program must

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comply with the requirements of 40 CFR Sec. 258.20 and V C.T.R. Sections 520.03(b) and 530.03(b)..

G. Customer Notification.

1. The Permittee shall institute and maintain a customer (i.e., user of the Landfill) notification program, in which all known customers are notified periodically in writing of the types of waste that will and will not be accepted at the Landfill.
2. The Permittee shall post conspicuous signs at the Landfill, advertising the types of waste that will and will not be accepted. These signs shall be readily visible and readable by users of the Landfill. The signs must comply with the requirements of V C.T.R. Secs. 530.14(a) and (b).

H. Litter Control.

1. Permittee shall properly place and maintain a "litter catch fence" proximate to the active cell. A regularly scheduled program of policing the site and manually picking up the litter shall be maintained.
2. Permittee shall prepare and implement a Litter Retrieval Plan and Litter Complaint Response Plan prior to the issuance of a Permit to Operate.

IX. Financial Assurance

- A. The Permittee shall obtain and maintain financial assurances for the entire site in accordance with Title V C.T.R. Sec. 530.41, to assure completion of any corrective action for any reasonably foreseeable release from the Landfill site before the disposal of solid waste into the Landfill.
- B. The Permittee shall demonstrate the availability of financial resources to conduct closure and post-closure maintenance activities before the disposal of solid waste into the Landfill in accordance with the provisions of V C.T.R. Sec. 530.92.

X. Administration

- A. The Permittee shall give notice to CEPA as soon as possible of any planned physical alterations or changes in construction practices at the Landfill.

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- B. The Permittee shall report orally within 24 hours from the time the Permittee becomes aware of the circumstances of any fire, explosion, or other condition at the permitted construction site which could threaten the environment or human health outside the facility.
- C. Where the Permittee becomes aware that it failed to submit any relevant facts in any report or submitted incorrect information in any report to CEPA, it shall promptly submit such facts or information.
- D. All reports required by this Permit and other information required by CEPA shall be signed by a principal executive officer of Permittee of at least the level of vice-president, or by a duly authorized representative of that person. The person signing the report shall make the following certification: "I (we) do hereby certify, under penalty of perjury, that the information contained herein is true and accurate to the best of my (our) knowledge after thorough investigation."

An individual is a duly authorized representative only if:

- 1. The authorization is made in writing by a person described above;
 - 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity; and
 - 3. The written authorization is submitted to CEPA.
- E. Any document required by this Permit shall also be signed by a registered civil engineer or certified engineering geologist, as appropriate, which contains the following certification:

"I, [a civil engineer registered by the State of California pursuant to Section 6762 of the Business and Professions Code] [or] [an engineering geologist certified by the State of California pursuant to Section 7842 of the Business and Professions Code], do hereby certify under penalty of perjury that information, relating to containment features and/or monitoring systems, contained herein was prepared [by me] [or] [under my supervision] and meets or exceeds all applicable requirements and/or standards.

- F. The Permittee shall submit all reports required under this Permit and other information provided to CEPA to:

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Campo Environmental Protection Agency
1779 Campo Truck Trail
Campo, California 91906

XI. Notifications

- A. This Permit authorizing construction does not authorize operation. Permittee must apply for authorization to operate and CEPA must issue an operating permit before waste disposal may begin. Before issuing a Permit authorizing operation, CEPA must inspect and observe equipment under actual operating conditions and find it capable of operating in compliance with all of the Campo Band's Code of Tribal Regulations. Operation without authorization is a violation of V.C.T.R. § 590, 16, subject to penalties up to five thousand dollars (\$5,000) per day.
- B. Upon application by the Permittee, CEPA will issue a Start-up Authorization to allow operation for shakedown and testing if the equipment is installed in accordance with the Permit and in compliance with all applicable regulations and can reasonably be expected upon CEPA inspection. If facility inspections indicate testing and well and surface monitoring compliance, CEPA may extend the Start-up Authorization until a Permit authorizing operation is issued.

XII. Enforcement

- A. CEPA may at any time prohibit or condition the construction or operation of the Landfill to protect public health and safety, to protect, or rehabilitate, the environment, or to mitigate adverse environmental impacts.
- B. This Permit is granted solely to Mid-American Waste Systems, Inc. and Muht-Hei, Inc.; and may not be assigned or transferred without the express written consent of CEPA. This Permit will be reviewed within five (5) years of issuance in accordance with Tribal Codes and Regulations.
- C. This Permit may be modified, revoked and reissued, or terminated for cause, including but not limited to the following:
 - 1. Violation of any Permit condition, the Tribal Codes and Regulations, or the underlying lease for the Landfill;
 - 2. Obtaining this Permit by misrepresentation or failure to disclose fully to CEPA all relevant facts; or

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3. A change in any condition that requires either a temporary or permanent modification or reduction in the Landfill or waste stream to bring the Landfill into compliance with the Permit conditions, the requirements of federal law or the Tribal Codes and Regulations, the requirements of the Code of Federal Regulations, or the underlying lease for the Landfill.
- D. The Permittee shall, pursuant to V C.T.R. § 590.02, allow CEPA, its authorized representative(s), or other person(s) authorized by CEPA to:
1. Enter upon the Landfill premises;
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit (See V C.T.R. § 530.12 (f));
 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
 4. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Permit or as otherwise authorized by the Campo Band Code of Tribal Regulations, any substances or parameters at any location.
- E. In an enforcement action, it shall not be a defense for the Permittee that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Permit.
- F. The provisions of this Permit are severable and if any provision of this Permit or the application of any provision of this Permit under any specific circumstance is held invalid, the application of such provision under any other circumstance, and the remainder of this Permit, shall not be affected thereby. V C.T.R. § 500.07.
- G. If the Permittee proposes to make a significant change in the design of the facility, the Permittee shall, at least one hundred twenty (120) days prior to the proposed modification, apply for a revision of the permit in the manner specified in the Tribal Codes and Regulations. Except as may be otherwise provided by the Tribal Codes and Regulations, the Application shall be reviewed in the same manner as an application for a permit for a new facility. If CEPA determines that a permit must be modified less than one

December 2, 1992

hundred twenty (120) days after the filing of an application for revision, it may waive the one hundred twenty (120) day filing period.

- H. The Permittee shall furnish CEPA, within a reasonable time, any information which CEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit. The Permittee also shall furnish to CEPA, upon request, copies of records required to be kept by this Permit.
- I. The Permittee must notify CEPA in writing at least thirty (30) days in advance of any proposed transfer of this Permit's responsibility and coverage between the Permittee and a new Permittee. This agreement shall include an acknowledgement that the Permittee is liable for violations up to the transfer date.
- J. The Permittee shall report any noncompliance with this Permit or the Tribal Codes or Regulations that may endanger health or the environment, such as slope failure occurring or a failure that threatens the integrity of the containment features of the Landfill or sediment basins. Any such information shall be provided verbally to CEPA within twenty-four (24) hours of the time the Permittee becomes aware of the circumstances. A written notice shall also be provided within seven (7) days of the time the Permittee becomes aware of the circumstances.
- K. The Permittee shall conduct such monitoring as may be necessary in order to provide information requested by CEPA.
- L. The Permittee shall immediately notify CEPA of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of solid waste or leachate containment facilities or of precipitation and drainage control structures.
- M. This Permit-to-Construct does not relieve the recipient from the requirements of any Campo Tribal law or regulation or of Federal law or regulation.

STATE WATER RESOURCES CONTROL BOARD

PAUL R. BONDERSON BUILDING
901 P STREET
P. O. BOX 100
SACRAMENTO, CALIFORNIA 95812-0100

16) 657-0941

X: (916) 657-0932

APR 12



April 9, 1993

Mr. James M. Strock, Secretary
California Environmental Protection Agency
555 Capitol Mall, Room 235
Sacramento, CA 95814

Mr. Michael Connolly, Chairman
Campo Environmental Protection Agency Board
1779 Camp Truck Trail
Campo, CA 91906

Dear Messrs. Strock and Connolly:

TENTATIVE AUTHORITY TO CONSTRUCT CAMPO INDIAN RESERVATION SOLID WASTE LANDFILL

In accordance with Chapter 805 of the 1991 Statutes and Section VI of the Cooperative Agreement between the California Environmental Protection Agency and the Campo Environmental Protection Agency Board, we have reviewed the draft tribal permit (Tentative Authority to Construct) to construct the Campo solid waste landfill and the supporting application. Our comments on the water quality aspects of the application are enclosed. Our comments indicate the need to modify the proposed liner system; identify the need for additional data; and express potential concerns depending on the data received. We expect the data to be provided by the Applicant in the Water Monitoring and Reporting Program (WMRP) and the application to operate, required by CEPA's regulations.

The Cooperative Agreement, Section VI, requires that the State Water Board determine whether the proposed project would:

- "1. Meet the functionally equivalent standards provided in Section IV of the cooperative agreement.
- "2. Provide not less than the level of protection for public health, safety, and the environment that would have been achieved if that State agency had issued the permit.
- "3. Implement all feasible mitigation measures"

Mr. James M. Strock
Mr. Michael Connolly

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April 9, 1993

It is the staff recommendation that if a design modification is made to the proposed liner system, data identified in our comments are provided and resulting concerns are properly addressed in the WMRP and the application for the permit to operate, then the proposed project would meet or exceed the State's requirements related to water quality. Therefore, the Tentative Authority to Construct would meet the applicable requirements of Chapter 805 related to the construction of a landfill. The State Water Board will be considering this recommendation at its April 27, 1993 meeting.

We believe it is appropriate for the State Water Board to be given an opportunity to review the design modification and any other modifications resulting from additional data.

If you have any questions, please contact Karen O'Haire, Office of the Chief Counsel, at (916) 657-2088, or James Giannopoulos, Division of Clean Water Programs, at (916) 227-4320.

Sincerely,


Walt Pettit
Executive Director

Enclosures

cc: See Interested Parties List

INTERESTED PERSONS MAILING LIST

CAMPO INDIAN RESERVATION SOLID WASTE LANDFILL

Gary Becks, Special Assisant
c/o Congressman Duncan Hunter
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El Cajon, CA 92020

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Solid Waste Program Manager
County of San Diego
5555 Overland MS 0383
San Diego, CA 92123

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Ocotillo, CA 92259

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Campo, CA 91906

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Report
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San Diego, CA 92104

STAFF REVIEW
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF CLEAN WATER PROGRAMS

2014 T Street
Sacramento, CA 95814

April 9, 1993

SUBJECT: Technical Evaluation of the Application for the Proposed Campo Landfill (Applicant) as Submitted by Mid-American Waste Systems, Inc. to the Campo Environmental Protection Agency (CEPA)

SUMMARY OF STAFF REVIEW CONCLUSIONS

GENERAL COMMENTS

The review of the application was done in view of CEPA's sequential permitting process. An "authority to construct" (ATC) is to be issued prior to a "permit to operate" under the two-stage permitting process. Construction Work Plans prepared by the construction contractors for the liner installation and for the water quality monitoring and reporting program will also be reviewed in cooperation with CEPA. Additional comments resulting from these future reviews, similar to this set of review comments, are intended to provide guidance and support to CEPA in their regulatory program.

Although a number of issues of concern have been identified in this review, such issues are believed to be resolvable because they 1) have been adequately addressed by the ATC permit conditions, or 2) can be addressed during review of Construction Work Plans in the Applicant's submission of an application for a permit to operate.

A number of issues relating to the operation of the landfill were deferred to the next phases of the review process. These include the final detection monitoring and reporting program, ground water remediation contingency plans, and the statistical approach used to assess the water quality monitoring data.

Our primary comment and concern relates to detection monitoring or the ability to detect releases from the proposed landfill. The fractured rock underlying the landfill site reduces the effectiveness of monitoring wells. We note, however, that the proposed landfill design includes a liner system that exceeds the minimum state and federal requirements. With the proposed double liner system, the lower liner could be considered to be a leak detection (monitoring) system. Appropriately located monitoring wells would then serve as an additional monitoring system. (Although composite liners are designed to preclude releases, small flaws in the flexible synthetic membrane could allow "point source" releases of leachate. It is our judgement that such point source releases which could be produced by a composite liner would be more reliably detected by an underlying detection system than by the more traditional monitoring well system.)

In order to consider the lower liner as a leak detection system, the upper liner must be considered the primary containment system and should be of composite design. In the proposed design, the upper liner consists of a flexible membrane (60 mil HPDE). We do not believe that such a liner would provide adequate primary containment. We also do not believe that such a liner would be considered acceptable under the federal Subtitle D regulations as a primary containment system.

It may be possible to reverse the proposed upper and lower liners to place the composite liner on top, although this may entail construction difficulties. Another approach might be to design a double composite liner system which would include a geomembrane composite liner (a clay mat between geofabric) under the 60 mil HDPE upper liner. Either such modification (or others) would meet the State's and the Subtitle D requirements for containment and allow the lower liner to serve as a leak detection system.

In summary, to ensure adequate and effective monitoring, the proposed liner system should be modified to have the lower liner function as a leak detection system and the upper (composite) liner function as the primary containment system.

Additional comments regarding liner design, liner and slope stability and the ground water monitoring program follow.

LINER DESIGN

- 1) Data available through March 30, 1993 indicate that although water levels have risen significantly, there is adequate separation between the ground water table and the proposed landfill liner. The Applicant should document more recent water elevation measurements in the Construction Work Plan including highest and lowest annual elevations to supplement the data contained in Volume 1, Appendix E (Binder 3). Subsequent water level elevation taken by the Applicant should also demonstrate that the highest anticipated ground water elevation will not be within five feet of the lower liner system.
- 2) High localized short-term ground water pressure gradients along high permeability zones above the water table could damage portions of the liner system. The Applicant should demonstrate in the Construction Work Plan the relative stability of the liner if such conditions occur and, if warranted, present mitigation measures to protect the liner system from such shallow water conditions.

LINER AND SLOPE STABILITY

We could not properly evaluate individual slope stability analyses without a complete description of potential failure surfaces and materials being analyzed,

including cross-sections. The Applicant should provide such information for review.

GROUND WATER MONITORING PROGRAM

The following points should be considered by CEPA in reviewing the Water Monitoring and Reporting Program (WMRP) Work Plan required to be submitted by the Applicant. It is our understanding, based on discussions with CEPA representatives, that CEPA identified similar points during their review of the application and development of the tentative WMRP.

- 1) The WMRP should contain concise summaries of the extensive compilation of hydrologic, geologic, and geophysical data provided in the application to support the site characterization and ground water monitoring network design. The following are recommendations intended to enhance the existing data-base:
 - o Descriptions of geologic materials and structure provided by the Applicant as required by the WMRP Work Plan, particularly for well-completion zones, should be of sufficient detail for necessary review and evaluation purposes.
 - o The WMRP Work Plan should provide detailed summary geologic cross-sections including structural zones, well completion zones, and the range of seasonal ground water table surface elevations for the proposed new locations.
 - o The procedures to further describe and evaluate underlying permeable fractures within the unweathered zone (determined by individual borings) should be demonstrated in the WMRP Work Plan prior to the installation of the monitoring network.
 - o Structural and hydrologic analysis of fracture zones following well installation should be substantiated using borehole geophysical data and especially long-term pumping tests. The analysis should not be based primarily on VLF (very low frequency geophysical) surveys, non-core borehole logging, and drilling rate data.
 - o Additional investigation when the excavation of the site achieves final grade is necessary to identify and evaluate vertical and near-vertical fractures at the site since existing vertical bore holes cannot provide data on fracture density, aperture, and degree of fracture filling.
 - o The proposed evaluation of vertical fractures following site excavation should include angle borings.

- 2) The ability to accurately monitor the site strongly depends upon the characterization of the upper weathered zone.

The WMRP Work Plan should further define at what depths the weathered tonalite (granitic type rock) first begins to behave like a fracture flow medium. The Applicant should provide additional data from the construction phase of the project to support the case that the fractured bedrock portion of the aquifer acts as a granular porous medium over each monitored phase of the landfill.

The WMRP Work Plan should provide for testing to accurately locate the elevation or depth where rock discontinuities begin to control ground water flow. Additionally, criteria used to assess ground water flow should be based on site specific test data as much as possible.

- 3) A generalized hydrogeologic characterization is provided for the entire site. Based upon data obtained from monitoring well installation and carefully designed aquifer tests, the WMRP Work Plan should provide more complete hydrogeologic site characterization. The characteristics should include data on site-wide flow directions and velocities in both weathered and unweathered materials and for all appropriate aquifer depths to confirm the effectiveness of the monitoring program. The testing methodology should also be documented in the WMRP Work Plan.

An ephemeral spring exists downslope of the proposed landfill. The WMRP Work Plan should provide a cross-section(s) showing maximum ground water table elevations corresponding to flows in the spring. Water quality data should also be included in the analysis to assess the role of the spring in the monitoring network.

- 4) The aforementioned additional hydrologic data is necessary to support the monitoring system performance and effectiveness prior to the acceptance of a final ground water monitoring system. The Applicant states that additional testing will be performed during well construction and used to verify the proposed design. A number of recommendations follow:

- o The four constant discharge aquifer tests performed did not use wells screened to isolate discrete parts of the aquifer and hence cannot accurately describe flow within the fractured rock system. The Applicant should use a more effective design to obtain representative results.
- o To properly design and test the monitoring well network, additional pumping tests should be performed, particularly along prominent fracture zones traversing the site.

- o Pumping tests should be performed particularly within high permeability zones to provide assessment of whether hydraulic interconnection exists along east-west trending (in addition to other azimuths) fracture sets. In designing pumping tests, the influence of fractures and hydraulic conditions (e.g. convergent flow) should be evaluated by the Applicant. The Applicant should provide a summary explanation of test design and intent including accurate screen locations/interval data for pumping and observation wells for the proposed construction phase testing.
- o Information contained in the application calls for incorporation of packers in bore holes to isolate high permeability zones as part of future aquifer testing. Specific details need to be provided in the Work Plan.
- o Additional tracer tests could be performed to help determine flow directions, overall travel time, and degree of hydraulic connection. The need for tracer tests would depend on the success of other test methods described above.



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Air Pollution Control Board
Brian P. Bilbray District 1
Dianne Jacob District 2
Pameia Slater District 3
Leon L. Williams District 4
John MacDonald District 5

Air Pollution Control Officer
R. J. Sommerville

March 23, 1993

Michael Connolly, Chairman
Campo Environmental Protection Agency
1779 Campo Truck Trail
Campo, CA 91906

CAMPO LANDFILL PROJECT

The San Diego Air Pollution Control District has reviewed the Mid-American Waste Systems application for permit, CEPA's analysis and the draft Authority to Construct for the proposed Campo Landfill project. It appears that most of the issues raised below can be resolved with changes to the analysis and draft Authority to Construct. The following are the District's comments:

District Review of Engineering Analysis

1. The engineering evaluation for Application 92-01 for Authority to Construct should be a "stand alone" document; that is, it should not require that the person reading it have to refer to other documents. The analysis should be understandable to a person with general technical knowledge.

To that end, the evaluation should contain a complete project description. The description should include general information such as landfill tonnage, number and size of cells, expected construction/closure dates, general description of construction method (e.g., double lined with clay liners, individual cells, etc.), peak and average gas generation rates, general description of control equipment, and control equipment installation schedules.

The evaluation should contain detailed emission calculations. Currently, it refers to the permit application for calculations. In some cases, the application does not appear to contain the detailed emission calculations being referred to. For example, it is not easily discernible

what heat content, gas generation rate or methane content were used in the calculations nor the length of roads to be paved or of unpaved roads to be watered. These and other items are either not clear or can only be found by referring to multiple pages within the analysis and the application. At the very least, the specific pages of the application containing these calculations should be identified and/or copied and incorporated as part of the analysis.

- a. The equipment description should detail what and when equipment will be installed in each phase.
 - b. The analysis should clearly detail the number of flares and the capacity of each flare, including physical dimensions.
2. The emission calculations should include peak hourly, daily and yearly emission rates since CEPA rules contain hourly, daily and yearly trigger levels. A comparison with CEPA trigger levels should then be made.
 3. On page 5, the analysis should document that due to the phased (cell type) construction, each "cell" will be closed and capped with appropriate dirt/clay/liner construction individually. This construction strategy should help reduce fugitive emissions compared to closing the entire landfill only after full capacity is reached.
 4. Page 6 of the analysis refers to a standby power generator. It should be clarified in the discussion that CEPA Rule 410.12(d)(1)(B)(ii) refers to emergency electrical generating equipment. As the rule states, operation for other than maintenance must be limited to actual interruptions of power from the serving utility. The maintenance emissions should be included as part of the stationary source's emissions. Emissions occurring during actual emergency operation need not be included in the stationary source's total emissions. It is unclear how the emissions from the equipment were handled in the analysis.
 5. EPA policy requires that any new major source (defined in the 1990 Clean Air Act Amendments as having emissions 25 tons per year or greater of NOx or VOC) for which an application was deemed complete after November 15, 1992, meet the Clean Air Act Title I New Source Review provisions or be "at risk" of federal enforcement action. This policy and whether it is applicable to this project should be discussed in the analysis.

6. The applicant indicates in Table 7B (Rev - 2, August 31, 1992) that peak NOx emissions for the facility would exceed the 40 ton per year threshold for emission offsets and LAER. Although this table has been superseded by one which projects lower emissions, the analysis should address the possibility that after operation commences and source testing is completed, the project may indeed be a major source as defined in the CEPA rules and may therefore require emission offsets, LAER and other major source NSR requirements.

Given the uncertainty with respect to the landfill gas generation rates, collection efficiency, methane content, and flare NOx emission rate, it is difficult to anticipate with certainty if the source will be "major." It is equally difficult to determine when this will occur since gas generation rates increase with time and the final value is difficult to predict. The applicant should therefore address the possibility that the source may be a major source and propose a strategy for demonstrating compliance with CEPA major source rules (providing offsets, satisfying PSD provisions, etc.). The analysis should include a review and discussion of this issue and recommend a procedure for addressing these requirements if actual emissions exceed current major source thresholds.

7. Page 15 contains data relevant to the landfill gas flare. In the discussion of temperature, it is indicated that the flare may be able to meet the NOx and CO emission limitations (lb/MMBtu) at 1,600°F but not at 1,800°F. The analysis does not present the emission rates which are expected when the flare temperature is not 1,600°F. It is further indicated that the operating temperature will have to be controlled to 1,600°F.

We are concerned about limiting the flare operating temperature to no more than 1,600°F, since minimum destruction efficiency is a function of minimum temperature and retention time. The driving force for temperature limitation should be destruction efficiency. The analysis assumes an organic compound destruction efficiency of 98% from the flare and bases the emission calculations on this value. Should the flare not achieve a 98% destruction efficiency at 1,600°F or whichever minimum temperature is specified, flare temperatures must be allowed to increase or the health risk assessment would likely have to be revised to evaluate the impacts of a corresponding lower destruction efficiency.

If a higher flare temperature results in an increase in emissions (for example NOx), re-evaluation for compliance with CEPA rules must be performed. The flare needs to achieve both a 98% destruction efficiency

and the proposed emission limits (e.g., 0.06 lb NO_x/MMBtu) at all times (except for short term transients). If any one of these parameters are not achieved, the project must be re-evaluated for compliance with CEPA rules.

8. On page 21, the evaluation of CTR §450.22(e) contains a typographical error. The statement should read that the operator shall not operate a collection system with gas-overdraw which could cause fires or damage.
9. Some of the references in the analysis to specific draft Authority to Construct condition numbers do not appear to match the conditions as numbered. The references to the specific conditions in the analysis should be updated.

Calculation Methodology

10. Emission estimates should be based on maximum potential emissions. The application (Table 2) indicates that the peak gas generation rate for "Case 2" (which is the lower of the two gas generation estimates) will be 4,813 cfm. However, the emission calculations (at least for the flare) appear to be based on 4,400 cfm. The level used for calculating emissions should be used as the basis for establishing permit limitations. That level should be based on the best available information with respect to what the landfill will generate. If in practice the amount of landfill gas to be incinerated is higher, then the applicant would be required to apply for a modification to the permit (in order to change the permit condition) and compliance with CEPA requirements re-evaluated.
11. The analysis contains an estimate of total suspended particulate matter (TSP) emissions for transfer trucks. Trucks would be the primary delivery vehicle should the train option not materialize or should there be a breakdown in train deliveries. Unless this option is limited by Authority to Construct/Permit to Operate conditions, transfer truck delivery would be worst case. Worst case conditions must be used in determining potential emissions. Although this case was considered in estimating the peak day emissions, it was not included in estimating the peak yearly emissions. Unless the use of transfer trucks were limited by Authority to Construct/Permit to Operate conditions, the on site peak day emissions should be used as the basis for peak year emissions.
12. The estimate of criteria emissions are greater than those assumed in the health risk assessment. For example, the particulate matter emissions

assumed in the health risk assessment are significantly lower than that estimated in the draft Authority to Construct evaluation. The NO_x emissions are slightly lower in the health risk assessment. These discrepancies should be identified and addressed.

13. The emission calculations do not appear to include hydrogen chloride. According to our calculations, HCl emissions are estimated at 21 tons per year. For purposes of screening health risk potential, the District estimates HCl emissions by assuming 100% conversion of chlorinated compounds into HCl. This estimate is likely somewhat conservative. However, this amount of HCl may be significant. It does not appear that HCl emissions were addressed in the health risk assessment. If this is the case or if the level assumed was less than the estimated value, the health risk assessment should be revised.
14. The emissions estimate for reactive organic gases appears to be low. Although the difference between the estimate contained in the analysis and the District's own estimate is relatively small in terms of the flare emissions alone, they may be significant in terms of facility emissions since they would push the source over the 40 tons per year threshold for major sources. However, the uncertainty in estimating fugitive landfill emissions makes it difficult to state definitively that major source requirements apply. However, the analysis should address what happens if actual emissions exceed 40 tons per year. Please see our discussion in item No. 6.
15. The District has significant reservations with regard to the modeling used in the Health Risk Assessment (HRA). The Draft Environmental Impact Statement was incorporated into the application for permit as a substitute for the HRA. The District voiced its concerns with regards to the modeling during the DEIS comment period. Although the Final EIS contains responses to those issues, the District feels that those responses do not adequately address the concerns raised. The FEIS modeling is flawed and we therefore have reservations about the conclusions of the Health Risk Assessment. Aside from the concern that the modeling is flawed, the analysis does not evaluate the effects of silica and trace metals as components of the particulate matter emissions (PM₁₀). In addition, the chronic and acute non cancer effects do not appear to have been evaluated.

Draft Authority to Construct

16. Condition II. N.

This condition appears to contain a misstatement. The condition should read as follows:

"Solid waste that is ~~not~~ non hazardous and is not designated waste may be discharged at a Class III disposal facility."

17. Condition II. O.

This condition limits the deposit of waste into the landfill to "approximately 3,000 tons per day." This condition is vague and unenforceable. The condition should specify the absolute maximum which can be deposited in any single day (for example, 3,500 tons per day). Alternatively, a maximum daily average limit could be specified, averaged over a one week period (or some other acceptable time period) in conjunction with an absolute daily maximum limit. These limitations should then be taken into account in the emission calculations. The applicant must be limited to those levels used as the basis of approval (i.e., the values used in the emission calculations) if the emission calculations are to have validity.

18. Condition V. F.

It appears that CEPA does not have regulations equivalent to the District's volatile organic compound storage and transfer rules (i.e., Phase I and Phase II vapor recovery for gasoline storage and dispensing operations). If CEPA anticipates that the applicant will make a request for the construction and operation of a gasoline storage and dispensing operation, CEPA should submit to the state Phase I and Phase II control regulations and obtain a determination of equivalency before authorizing such construction. Please note that this applies to the storage and dispensing of gasoline. Storage and dispensing of diesel fuels are exempt from District emission control requirements.

19. Condition V. T. 1.

This condition contains a design requirement based on the anticipated daily volume of leachate. If the maximum volume is known, it should be identified in the condition to ensure that CEPA and the applicant

know what the specific design criteria is. This would make enforcement of this condition much simpler. If it is not known, it should be made clear that CEPA will review and approve any estimate provided by the applicant and determine how this condition would be enforced.

20. Condition V. W.

This condition may be inconsistent with Part II, Condition J., paragraph 6, which states that all precipitation is to be collected and managed as leachate. If precipitation is to be collected and managed as leachate as required by Condition J., it should not be allowed to be used for dust control or other activities within the active landfill area as allowed by Condition W., even if it is determined to be non-hazardous. Leachate is a potential source of volatile organic emissions and odor nuisance. Condition W, subsection 1, may be sufficient to address this issue but may conflict with Condition J.

21. Conditions VII. D., E., F. and G.

It appears that the term "phase" is used in each condition to refer to different things. The term "phase" should be clarified or perhaps included in the definitions at the beginning of the document. If they are referring to different events, different terms should be used in order to avoid confusion.

22. Conditions VII. H. and J.

This condition requires the Phase II blowers and flare installation take place within six months after the landfill gas collection rate reaches 451 scfm. The Phase I flare will have a maximum capacity of 500 scfm. If there are any construction delays, unforeseen problems or if the increase in gas generation rate is more rapid than anticipated, the 49 scfm "cushion" may not be sufficient to ensure that there is enough flaring capacity to incinerate the amount of gas collected. We recommend the Phase II flare equipment be installed no later than six months after the collection rate reaches 400 scfm. In addition, the condition should require the Phase II flare commence operations when the landfill gas recovery rate equals 500 scfm.

23. Conditions VII. I. and K.

For reasons similar to those discussed above, the District recommends the Phase III flare installation requirement trigger at 2,000 scfm instead of 2,430 scfm. The maximum rating of the Phase II flare will be 2,500 scfm and a 70 scfm cushion may not be sufficient for the six month period or if delays occur. Also, the condition should require the Phase III flare commence operation when the landfill gas recovery rate equals 2,500 scfm. It is also unclear why the blowers are being required to be installed prior to the flare.

24. Condition VII. L.

The District understands that flare installation will occur in three phases. Condition L is confusing in this regard since the Phase I, II and III flares have been addressed by previous conditions. If condition L is intended as a contingency for the possibility that more than 5,000 scfm of landfill gas may be generated and incinerated, the condition should require that the applicant submit an application for and be granted an Authority to Construct/Permit to Operate for the modifications to the landfill gas flare system prior to installation. Since the flaring, fugitive and toxic emission calculations are based on a given landfill gas generation rate (apparently 5,000 scfm), those calculations and the evaluation would have to be re-done to determine compliance with CEPA rules. In addition, the application for this additional flare should be required prior to reaching the maximum flaring capacity of Phase III (5,000 scfm), perhaps at 4,500 scfm, or sooner to allow adequate time for review, approval and installation.

25. Conditions VII. W. through AD.

The conditions pertaining to haul roads do not limit the amount (total length) of roads which may be constructed. The total length of roads should be limited to that assumed in the emission calculations. The draft Authority to Construct should specify which roads and what length is to be paved.

The permit evaluation assumed certain limitations on which roads may be used by vehicles traveling within the landfill that were not carried through to the draft Authority to Construct. For example, the analysis states: "travel will be confined to highly traveled graveled temporary roads on the landfill footprint leading up to the active face" and

"conditions will be developed to shift as much activity as possible away from unpaved roads and onto paved roads at the landfill site." The draft Authority to Construct does not appear to contain any such limitations.

26. Condition VII. AH.

This condition does not provide adequate protection against overdrawing of the landfill and should be more specific. Since an in-line oxygen analyzer has been required, the oxygen concentration of the landfill gas should be limited to some specific value (percent oxygen by volume). The District typically limits landfill gas oxygen content to 3.5% by volume. Although this requirement may not be realistic when the landfill is operating during aerobic decomposition, literature indicates the aerobic phase for landfills lasts only 6 to 8 months. The landfill should be in anaerobic decomposition phase by the time the flare begins operation and therefore this requirement should not pose difficulties.

27. Condition VII. AI.

This condition should indicate when landfill gas can be burned in the flare during startup situations. We recommend auxiliary fuel (as identified in the condition) be used until the flare reaches the minimum operating temperature of 1500°F, at which time incineration of landfill gas can begin.

28. Condition VII. AK.

CEPA should consider requiring the continuously recording temperature sensor also contain a visual temperature display. This will allow CEPA inspectors and equipment operators to easily determine the flare's operating temperature.

29. Condition VII. AQ.

Since the proposed flares will have to meet BACT requirements, source testing of each flare for all pollutants for which BACT determinations have been made by CEPA and for any toxic air pollutants of concern should occur at least on a yearly basis. After compliance has been demonstrated over consecutive years, testing could be performed less frequently. Source testing should be initiated when the flare is able to operate at full capacity for not less than 4 hours.

30. Condition VII. AS.

This condition indicates that on site engine sizes are to be the minimum practical. It appears this condition refers to mobile sources. If so, the condition should specifically state so. Otherwise, CEPA rules (Part 410.02) require permits for internal combustion engines over 50 horsepower which aggregate to 200 hp at the entire stationary source.

31. The draft Authority to Construct should specify and require a minimum of 0.3 second retention time and a non methane hydrocarbon flare destruction efficiency of not less than 98% for each flare. The first requirement will provide a flare design criteria and the second will ensure the basis for the emission calculations are met.

32. The draft Authority to Construct should include a condition requiring auxiliary fuel such as natural gas or liquefied petroleum gas (LPG) be used to assist the burning of landfill gas and to maintain the minimum required flare operating temperature.

33. The draft Authority to Construct should be specific as to when the automatic flare shut off is to be activated. In general, the District uses the following parameters to determine flare shut-off conditions, except for transient conditions lasting not more than 30 seconds:

- Flame-out
- Low stack temperatures (<1,500°F)
- High stack temperatures (>1800°F)
- Excessive vacuum (>3.5% oxygen by volume in the header piping at the flare station)

34. The draft Authority to Construct should state the maximum permitted NOx emissions for the flare (i.e., 0.06 lb NOx/MMBtu) and the maximum amount of landfill gas which can be incinerated without prior CEPA approval. These values are important in terms of consistency with the assumptions used to demonstrate compliance with CEPA New Source Review rules.

35. Condition VIII. A.

The draft Authority to Construct does not limit the amount of truck deliveries to the landfill. As discussed in item 11, the District recommends the amount of truck traffic allowed be either limited, or the

Campo Environmental Protection Agency
Michael Connolly

March 23, 1993

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analysis assume full time truck delivery as worst case or limit it to some other level.

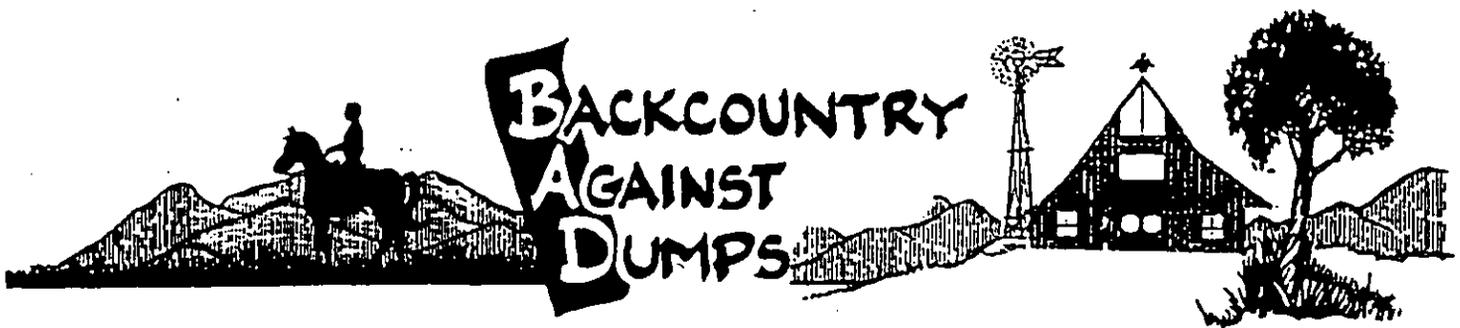
Should you have any questions regarding our comments, please contact me at (619) 694-3313 or Alberto Abreu at (619) 694-3310.



MICHAEL R. LAKE, Chief
Engineering Division

MRL:AA:ct

cc: Taylor Miller, Miller, Karp & Grattan



" Don't Trash Our Water "

PRESENTATION TO THE PERMITTING & ENFORCEMENT COMMITTEE
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD
PUBLIC HEARING MARCH 26, 1993

BACKGROUND

My name is Donna Tisdale. I am the president of our grassroots group Backcountry Against Dumps (BAD), I am the chair of the local landuse advisory group, I am an advisor to Congressman Duncan Hunter, I am a member of Supervisor Dianne Jacob's Committee on Growth and Environment and recently, I started working with a new binational group call Border Green Line. In 1992 I received the Rainbow Warrior award from the San Diego Sierra Club for my efforts at Campo and in May I will receive a national award from Citizen's Clearinghouse for Hazardous Waste.

My family and I live and work on our 140 acre Morning Star Ranch which shares a common boundary fence with the eastern side of the Campo Landfill site. Our oat field, where our cattle and horses graze, is only hundreds of feet from the landfill site and our wells, garden and orchard are only about 1,000 feet from the site. My husband bought our ranch back in 1963 and we did all the brushing, clearing and fencing. We have invested not only our money but our blood sweat and tears as well. Our roots are deeply planted, we love and respect the land and the water that gives it life. We will fight for it to the bitter end!!

Back in 1989, no one from the Campo Band came knocking on neighbors' doors to tell us of their landfill plans, we had to read about it in the paper. After the first scoping hearing, I walked up to Tribal Chairman, Ralph Goff, and Jim West, Campo's Indian financial advisor and politely invited them to our house to discuss our concerns. Chairman Goff would not look at me and didn't say much of anything. Mr. West coldly informed me that he flew over 50,000 miles a year to help Indian people and didn't have time to talk to us!! At that moment, I knew exactly where we stood with them.

Those first hearings gave us a taste of what we were in for. We formed our grassroots group and started doing technical, legal and political research and then we called our first community

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meeting. We mailed out fliers to the everyone and I personally called Chairman Goff and asked him to attend so that we could share what we had learned about landfills. Mr Goff told me he had previous committments and could not come. Arol Wulf, one of our founding members, made several trips to the Tribal Hall to meet with tribal leaders. Arol was told our information was outdated.

Several months later we sent out a bulk mailer announcing our second community meeting which included Native American speakers Madonna Thunderhawk from Pine Ridge South Dakota and Luther Grass from Imperial Valley. Madonna spoke about her experiences with groundwater contamination and all its inherent problems, she told us that tribal leaders commonly use charges of racism to divide and conquer she urged the community to stand together and stop the landfill. Mr Grass, a Cherokee, a soil scientist and a member of the National Congress of American Indians spoke about soil and water contamination from waste disposal sites and his first hand experiences with liner failures. Chairman Goff boycotted our meeting and urged tribal members to do the same. It became crystal clear that our efforts to educate the community were not appreciated by the tribal leaders.

Our next step was working with Assemblyman Steve Peace on AB3477 and then AB240 in an attempt to gain some state oversight and protection. For two years we traveled back and forth to Sacramento for hearing after hearing. At the July 5, 1990 Senate Toxic Committee hearing, Kevin Gover the Indian attorney for Campo, threatened lawsuits against the state. Senator Art Torres, committee chairman, told Mr. Gover that they expected to face lawsuits over this issue and went on to say that times are changing and policies need to change too. Senator Torres said that prevention must be moved on quicker than it had been in the past and strongly stated that California needs to protect water resources now!!

On July 17, 1990, Gene Carpenter an employee with the Chambers Group and working as a consultant for the landfill, came to our ranch to take water samples. I made arrangements for Mr. Carpenter to take water samples at a neighbors on the south side of the landfill site and drove him over to Mr. Tucker's house. Mr. Carpenter and I had a long conversation during which he told me that if the Campo site was not located on an Indian resevation it would have been kicked out in the very beginning after water was found in 8 out 12 core sample holes!! Mr. Carpenter also confirmed our suspicions that tribal leaders had allowed the dumping of raw septic tank waste at the landfill site. Before he left, Mr. Carpenter told me that we could easily defeat the landfill project on environmental issues but said our problem would be the sovereignty issue!!

The last time I testified in front of the CIWMB was on March 19, 1991. By that time the second waste disposal project on Indian land in our community had been announced--the La Posta toxic waste incinerator at the La Posta Reservation just 5 miles north of the Campo Landfill site. The Board voted 3-0 to support AB240. Even Chairman Frost voted for it in spite of the fact that he had urged Governor Duekmejian to veto its predecessor, Ab3477.

TECHNICAL ISSUES

The Draft and Final Environmental Impact Statements for Campo are based on studies and reports done by Dames & Moore who was hired and paid by the proponents, Mid-American Waste Systems from Ohio. The Dames & Moore studies grossly misrepresent the true geologic and hydrogeologic facts at the Campo site. The Dames & Moore reports have been criticized by the Army Corps of Engineers, the USEPA Region 9, the County of San Diego, Ted Smith, our geologist, by SAIC reviewers, consultants for the BIA, and even by David Huntley who was retained by the proponents as a third party reviewer!!

Documents obtained under Freedom of Information show that Campo asked the Corps of Engineers to "sanitize" their comments. Needless to say, the Corps refused to do so. The Corps' project manager for Campo told me that they were shocked at what proponents asked them to do and they were even more shocked that they would do it in front of Cato Cedilla of Congressman Duncan Hunter's staff. I was also told that when this project goes to court, there will be people in the Bureau of Indian Affairs that will be very sorry for some of their actions. Unfortunately, the Corps could not give me specifics.

Jay Jones of Ogden Environmental, consultants for CEPA, has contradicted himself on several occasions. Numerous times he stated that our sole source aquifer is an unconfined aquifer which means there are no real boundaries. On other occasions, Mr. Jones has stated that when our water is contaminated, that water from Campo's sand mine well can be used to provide an alternate source. Mr. Jones says there are groundwater divides between the landfill and the sand mine that will prevent migration of contamination in that direction. Mr. Jones is dead wrong.

Dames & Moore's maps show fractures through what they call groundwater divides and existence of divides has been questioned by the Army Corps, the USEPA, SAIC, Rich Boylan of the State Water Resources Control Board, Ted Smith, etc. So Mr. Jay Jones needs to do his homework--there are seldom groundwater divides in areas as highly fractured as this. Groundwater does not always follow topographic flow directions, especially here!

Dames & Moore's methods and actions have been suspect on more than one occasion. In fact, we have been extremely disappointed that such a well recognized firm would do such an inadequate job especially in light of the fact that ours is a sole source aquifer located in a fragile setting vulnerable to contamination.

My husband and I are so concerned with the slipshod work done by Dames & Moore that we filed a complaint against them with the State Board of Engineers. This week I was notified that the complaint was referred to the State Board of Geologists and they have opened an investigation. I have attached a copy of the letter I received from the Board of Geologists dated March 22, 1993. I was very encouraged by the conversation I had with Judy Lemke their enforcement manager regarding possible actions against Dames & Moore and their geologists. Sometimes big companies rely too heavily on their name recognition to get them through sticky situations. In this case, it is our opinion that Dames & Moore shamelessly whitewashed the fatal flaws that are present at the Campo Landfill site and we have called them on their reprehensible behavior. The truth will be told one way or another!!

OUTSTANDING DECISIONS

At the federal level, the USEPA has not completed their comments on Campo's permit application and the Secretary of the Interior has not signed the Record of Decision. I met with Secretary Babbitt last week and even though the BIA expected him to make a decision by March 19th, they had not informed the Secretary of the numerous negative comments, reports and outright opposition to the Campo Landfill. After Congressman Hunter and I met with Secretary Babbitt, he said he was under no deadline and would not rush into any rash decisions. To date, no decision has been made.

At the state level, State Water Resources Control Board Comments on this permit application are not available. I spoke with Rich Boylan who wrote the comments and he informed me that his comments were being reviewed and revised and he thought their comment deadline had been extended to April. Mr. Boylan could not divulge the nature of his comments but in previous conversations he did tell me that he had serious concerns with the site, with the high water levels and with the monitorability. Past experience tells me that something is up. I will almost guarantee that Mr. Boylan's comments were critical of the Campo Landfill site and now proponents are working on Mr. Boylan's superiors to "sanitize" the Water Board's comments to be more pro-project. That is what they did to the Army Corps. The problem is that the public will never see the draft comments which tell staff's true feelings—we will only see the "sanitized" version!!

Another outstanding issue is the status of the recycling facility at the Campo Landfill which is supposed to divert recyclables from the landfill. The indictments of Campo Projects executives on charges of bribery and conspiracy in New York has put that aspect of the project on hold. No subleases for the recycling facility are included in the Record of Decision being considered by the Secretary of the Interior. How will this impact compliance with AB939 and where are the transfer stations???

IMPACTS TO MEXICO

The Campo Landfill site is located less than $\frac{1}{2}$ mile from the US/Mexican border and according to an SAIC document faxed to the BIA on December 11, 1992, "groundwater beneath the southern one-third of the site flows towards Mexico." That same document also states that the "proposed site is underlain by fractured bedrock, which may provide conduits for rapid movement of groundwater and "if construction procedures, operating condtions, and monitoring requirements are NOT properly followed, risk of groundwater contamination is very high". The document was obtained under FOIA

Mid-American and the BIA have downplayed the opposition from Mexico. Believe me, there is serious opposition from Mexico to this site. In 1990 we were presented with petitions from Mexican citizens living just South of the US/Mexican Border. Mexican government officials have expressed serious concerns about Campo to the EPA and to the International Boundary and Water Commission and to me personally on numerous occasions, they feel the Campo site violates the La Paz Agreement.

Please see the attached most recent petitions from Mexico. A member of the Mexican Teacher's Union which owns over 1,000 hectares just south of the site has expressed the Union's possible interest in becoming a co-plaintiff in any lawsuits we may file to stop the Campo Landfill.

BOTTOM LINE

Mid-American Waste Systems (an Ohio firm that has never done business here) has spent approximately \$20 million here in attempts to engineer around some every serious geological and hydrogeological flaws. More money spent on more reports, on more lobbyists and on more P.R. guys will not change the facts at Campo. From the very beginning we have said that the facts will speak for themselves if people will only listen. MAWS has been counting on Campo's sovereign nation status and threats of racism to protect them from scrutiny by the county and state agencies. Please help us prove them wrong by not allowing them to begin construction on a landfill that has so many unanswered questions regarding our priceless and irreplaceable groundwater around which our lives and our foodchain revolves.

On page one of your agenda today, under facility facts it states that surrounding land uses include industrial. There is no industrial land use in our neighborhood on or off the reservation. On the surrounding private property there are four hog farms, a rabbitry, several livestock operations, dryland farming, gardens and orchards. The majority of which Mid-American and the proponents failed to identify and document and all of it will be lost when the groundwater goes!!

We realize that this whole project is a political hot potato but we have worked long and hard for state oversight and whether or not you like it, the buck stops with you. We are asking you to stand firm in upholding your responsibilities. Campo's sovereign status does not eliminate the State's liability for permitting or allowing construction of unsafe sites. Remember Stringfellow Acid Pits and the hundreds of millions in fines and cleanup the state is facing because they were the permitting agency. Help us prevent the siting of the Campo Landfill and avoid another environmental disaster by saying no to the Campo Landfill now and in the future!!
Thankyou.



**STATE BOARD OF REGISTRATION FOR
GEOLOGISTS AND GEOPHYSICISTS**
400 R STREET, SUITE 4060, SACRAMENTO, CA 95814
TELEPHONE: (916) 445-1920



March 22, 1993

Ed and Donna Tisdale
P. O. Box 1275
Boulevard, California 91905

Dear Mr. and Mrs. Tisdale:

The Board received your complaint against Dames & Moore on March 22, 1993. We have opened an investigation into their activities. The complaint was referred to us from the Board of Registration for Professional Engineers and Land Surveyors as it did not fall under their jurisdiction.

If you wish to be apprised of the status of the case, please feel free to call me. I will let you know of the Board's decision as soon as one has been reached.

Thank You,

JUDY LEMKE
Enforcement Manager

SACRAMENTO OFFICE:
NANCY LUCCHESI NEWBILL
LEGISLATIVE & FISCAL DIRECTOR

□ STATE CAPITOL
SACRAMENTO, CA 95814
(916) 443-5581
FAX (916) 327-2187

COMMITTEES:
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BANKING, COMMERCE & INT'L TRADE

SENATOR
DAVID G. KELLEY
37TH DISTRICT
CALIFORNIA LEGISLATURE
IMPERIAL, RIVERSIDE & SAN DIEGO COUNTIES



DISTRICT OFFICES:

MARGI WEGGELAND
DISTRICT DIRECTOR

□ 11440 W. BERNARDO CT., #104
SAN DIEGO, CA 92127
(619) 675-8211
(619) 675-8262 FAX

□ 73710 FRED WARING DRIVE, #108
PALM DESERT, CA 92260
(619) 348-2089
(619) 348-0341 FAX
1 (800) 824-8200

March 24, 1993

Mr. Michael Frost, Chairman
California Integrated Waste
Management Board
8800 Cal Center Drive
Sacramento, CA 95826

Dear Mr. Chairman:

It is my understanding that the Board will be meeting on March 31st, and, at that time will have before them a request from the Campo Landfill to obtain an "Authority to Construct Permit."

I would like to join the San Diego County Board of Supervisors in expressing my very strong opposition to the proposed "Campo Landfill" in eastern San Diego County.

Many issues are unresolved at this point, especially those relating to possible groundwater contamination which could easily occur through leaks in the synthetic liners. Should contamination occur, it would cost in excess of \$200 million to extend pipelines to those area residents who rely solely upon the groundwater for for their existence.

I urge the California Integrated Waste Board to consider the possible consequences of their actions and not grant the Campo Landfill the Authority to Construct Permit which it seeks.

Thank you for considering my position on this proposal before you today.

Best regards,

DAVID G. KELLEY

DK:nlh

CALIFORNIA STATE SENATE



COMMITTEES
 APPROPRIATIONS
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 ENERGY AND PUBLIC UTILITIES
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 TRANSPORTATION

SUBCOMMITTEES
 CHAIR, BONDED INDEBTEDNESS
 AND METHODS OF FINANCING

SELECT COMMITTEES
 CHAIR, SOURCE REDUCTION AND
 RECYCLING MARKET DEVELOPMENT
 SMALL BUSINESS ENTERPRISES

March 25, 1993

LUCY KILLEA
 SENATOR, THIRTY-NINTH DISTRICT

Jesse Huff, Chair
 Permitting & Enforcement Committee
 California Integrated Waste
 Management Board
 8800 Cal Center Drive
 Sacramento, CA 95826

Dear Chairman Huff:

This letter is to express my continued concern with the establishment of a solid waste landfill on the Campo Indian Reservation in San Diego County, California.

As you are aware, this area is completely dependent upon groundwater and will remain so for the foreseeable future. It is clear that all possible efforts need to be made to protect the viability of this vital local resource. Should the ground water become contaminated, the lives and health of all local residents would be impacted.

The United States Environmental Protection Agency has noted serious reservations about groundwater protections at the proposed site. They believe it could pose "significant potential adverse impacts to water quality" due to fractured bedrock at the site and shallow groundwater. Clearly more information is needed.

I respectfully urge that you take possible groundwater contamination into consideration when making your recommendation to the CIWMB. If I can be of further assistance to you with this matter please contact my Field Representative, Mike Nelson at (619) 696-6955.

Thank you in advance for your cooperation.

Sincerely,

LUCY KILLEA
 Senator

LK:mn

DISADVANTAGES OF THE PROPOSED PROJECT

GROUNDWATER

Proposed site is underlain by fractured bedrock, which may provide conduits for rapid movement of groundwater.

Groundwater beneath the southern one-third of the site flows south toward Mexico.

If construction procedures, operating conditions, and monitoring requirements are NOT properly followed, risk of groundwater contamination is very high.

WASTE TRANSPORT

Railhaul through Mexico appears reliable, but unanticipated complications could arise.

A rail transfer station near the waste source must be sited, permitted, and built by the County or a third party. (None yet proposed)

When a rail transfer station site is proposed, local opposition can be expected to delay permitting and construction. This could result in temporary reliance on truck haul.

WASTE MANAGEMENT

San Diego County has not expressed support for the project.

The waste source is undetermined (partly because the County has not cooperated). The applicant says "Build it and they will come." This may be valid, but lack of a committed waste source is still cause for concern.

AESTHETICS

The east ridge berm will be highly visible from about 12 off-reservation residences to the east. Revegetation will mitigate, but will not eliminate the visual impact.

The southern one-third of the landfill will be visible from several residences to the south. No mitigation possible until after closure.

Wind-blown litter will be a constant problem unless litter control measures are rigorously enforced.

MISCELLANEOUS

Organized opposition by local off-reservation residents can be expected to continue.

15 de marzo de 1993

Honorable Señor Bruce Eabbitt
Secretario del Interior
Departamento del Interior
Washington, D.C. 20240

señor secretario:

Los abajo firmantes somos habitantes del Estado de Baja California, México, opuestos a la instalación de un depósito de basura tóxica al norte de nuestra frontera, en el Area de la Reservación India de Campo, California, E.U., así como de un Incinerador, igualmente tóxico, en la Reservación India de La Posta, al este de San Diego.

Dicho basurero e incinerador contaminaría nuestros mantos freáticos, así como el medio ambiente, la fauna y la flora de Baja California, por lo cual le solicitamos se oponga a dichos proyectos en beneficio de la armonía que debe reinar entre nuestros dos pueblos: el mexicano y el norteamericano.

A T E N T A M E N T E

Nombre	Domicilio	Firma
José Luis Alonso Vargas	Av. A. Q. Ros #774 Col. Independencia	[Firma]
Luis Daniel Alvarez Torero	Rio Colorado Grand #4011	[Firma]
VERONICA NIENDEZ	COTA AV. FRONTERA MEXICALI #2889	[Firma]
JOSEPH CONWAY	ARREOLA AV. RIO NASTIA # 170 MEXICALI	[Firma]
Luisa Adela Méndez Cota	Av. Frontera Mexicali # 2889	[Firma]
José Antonio Alvarez Torero	Casa #4011	[Firma]
JOSE LUIS COVARUBIAS RAMIREZ	AV. AGUA #294 COL. ROBLE	[Firma]
Hortencia Moreno Sandoval	AV. Rio Bravo #2229	[Firma]
Celmira Moreno Sandoval	AV. Rio Bravo #2229	[Firma]
Ruben Esteban Jaime Aguilar	AV. Rio Balsas #11	[Firma]
Rochin Dominguez Lorenzo	col. Municipio Libre Calz. Int. E. U.	[Firma]
Reges Rochin Dominguez	" " " "	[Firma]
JOSE LUIS VARGAS	AV. RIO USUMACINTA #2764 COL. TACO	[Firma]
Ramiro González Julia Cisneros	Calle 1 #10 y C/ra Rio Champton	[Firma]
Itzel Alonso Martínez	AV. JALISCO #1866 COL. PUEBLO NUEVO	[Firma]
Olivia Martínez Hernández	Fra. Perez Pias 1880 Cucapah	[Firma]

#2

15 de marzo-de 1993

Honorable Señor Bruce Babbitt
Secretario del Interior
Departamento del Interior
Washington. D.C. 20240

señor secretario:

Los abajo firmantes somos habitantes del Estado de Baja California, México, opuestos a la instalación de un depósito de basura tóxica al norte de nuestra frontera, en el Area de la Reservación India de Campo, California, E.U., así como de un Incinerador, igualmente tóxico, en la Reservación India de La Posta, al este de San Diego.

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A T E N T A M E N T E

Nombre Domicilio Firma

- Mario Alvarez, Noche Juan Alvarez 1576
- Juan Lopez Rojas Quintana Roo #1115 Col. Indep.
- Fco. Javier Salinas A. Joaquin Mexico #53 Col. Solidaridad
- Ma Mercedes Alvarez R. Joaquin Mexico #33 Col. Solidaridad
- Francisca Ojeda S. Av. San Valentin #2301
- Rodolfo Alfredo Aguilar Rosas Unidad Patria #130
- OSCAR SOLOME ESPINOZA CASTRO AV. RUMANIA #7611 Col. C.U.O.
- JOSÉ ELIAS ROMERO GONZALEZ CALLE 1ª Y CARRILLO CHAMPOTON #1
- HILARIO-CARLUASO GONZALEZ 2-
- José Manuel Upatinec Salomon Isla de Java #408 Sta. Monica
- Ma. Ester Valdez de Juan de Java #408 Sta. Monica
- GERARDO FORTES Con. Rio Champoton y 1ª Palaco.
- Manuel Daniel Barron, Suroeste Rio Champoton y 6ª
- Martinez Valdez Lisseth Tulas Java #408 Santa Monica
- Eunice Alonso Fierro Av. A. F. Poo #774 Col. Ind. Eunice
- FRANCISCA FIERRO SAYAS EJ. CHIAPAS MEXICALI

15 de marzo de 1993

Honorable señor Bruce Babbitt
 Secretario del Interior
 Departamento del Interior
 Washington, D.O. 20240

Señor Secretario:

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A T E N T A M E N T E

Nombre	Domicilio	Firma
Esther Pichardo Ac.	Av. Rio Colorado 2035 G.D.	Espe
Rita Carminia Lopez de Hdez	Calle del campo 1222. Rivera C.	Rita Carminia L. de H
ma. marian castillo navarro	pipile #1354 indep	
M ^{ra} Angeles Lopez J.	av. Avenida Pipila 1353 Col. Ind.	
Maria de Jesus Acosta	Av. Pipila 1371 Col. Independencia	
VICTOR MANUEL HENDEZ	CALLE DEL CARDIO 1222 COL. RIVERA CAMPESTRE	
Ma. del Socorro Martínez O.	Quechilwawa #281 Col. Nva. Esperanza	
Maria del Marcon de Ruiz	Callesin Colombia #101 Col. Pasadisa	
Leon Ostromo Ojeda	av. Valle de Santo 2367 Col. BC.	
Francisco Alonso Vargas	Fr. Pérez Litos 1880 INFOVANT	
Elvira Ruiz Garcia	AV: Domingo Arrieta #118	
Cecilia Medina Lopez	José María Michelena #1271	
Rosa Elvira Carmena Lopez	av. Joaquin Fernandez #1839	
ANA LAURA SPENITO	AV. FRANCISCO QUIET MINA #85	
Adrian Martinez Ochoa	Rio Colorado #3221	
Oscar Perez Castro	Av. Rio Sulchate #206	

#7

15 de marzo de 1993

Honorable Señor Bruce Babbitt
Secretario del Interior
Departamento del Interior
Washington, D.C. 20240

Señor Secretario:

Los abajo firmantes somos habitantes del Estado de Baja California, México, opuestos a la instalación de un depósito de basura tóxica al norte de nuestra frontera, en el Area de la Reservación India de Campo, California, E.U., así como de un Incinerador, igualmente tóxico, en la Reservación India de La Posta, al este de San Diego.

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A T E N T A M E N T E

Nombre Domicilio Firma

- Maximiliano Padilla Av. Revolución 2599
- Marta Los Angeles Padilla Av. Austral 2232 San Luis
- EFRON NEGRETE H. CALZADA UNIV. ZUG. CONJ. UNIV.
- Moisés Rodríguez Lomeli Calzada Universidad 2118
- Indira Herrera Prado Mándar H. Co. Apatzaco calle 11
- Corina Méndez Osuna Ave. Comanda 2536
- Angela Libertad Prado M Durango #1848
- Emiliano Gauselco
- José Robt Cruz Quiso - FRENTE 428
- Julio Prado Valdes H. Cologier Militar 374
- MANUEL YACIA NAYARIT #2199
- CRISTOBAL MADRUGAL San Quintin 2089
- Rafael Sánchez ARANEA 9394
- Guadalupe Marcia C. Av. Guaranjato #1890
- Juan José Betancourt Cll. Av. Bachilleres #3098 COL. NAC. NABUÉ
- MARTIN SALVADOR OMAÑA COL. NACIONALISTA #3098 AV. BACHILLERES
- José Hugo López AV. CERRO DEL VESENDU #1433. Co. Sobn M.
- RUBEN PEREZ AV. CAMPO NACIONAL 2100 COL. BAJA CALIF.

L. Manuel Hill V.

Kenale 2156 #3

Leon Carbajal M.

Nayan 2249

Juan Luis Leon M.

BARRIA FORTUOSA 494.

Francisco Lopez Ros

CuicatHuac N 209

Antonio Cuinera

AV. Juarez 119 Centro

MORNING STAR RANCH

HAY SALES • CATTLE • MORGAN HORSES
ED & DONNA TISDALE

P & E COMMITTEE, CIWMB

PUBLIC HEARING, MARCH 26, 1993

PUBLIC TESTIMONY PRESENTED BY ED TISDALE

MY NAME IS ED TISDALE AND I LIVE A SHORT DISTANCE FROM THE PROPOSED CAMPO LANDFILL, A FEW HUNDRED FEET. I TOTALLY OPPOSE THE CAMPO LANDFILL FROM AN ENVIRONMENTAL POINT OF VIEW. I HAVE LIVED IN AREA FOR 30 YEARS. I HAVE SEEN LOTS OF WET AND DRY YEARS. SINCE DECEMBER 1992 WE HAVE HAD 32 INCHES OF RAIN. THE PROPOSED SITE SITS ON THE TECATE DIVIDE, UPHILL FROM EVERYTHING AROUND IT. ON TOP OF THE TECATE DIVIDE YOU WILL GET MANY TYPES OF WEATHER. BAD WINDS OF 90 MPH PLUS. SUMMER RAINS OF 4 to 6 INCHES IN A SHORT PERIOD OF TIME. THE HEAVIEST RAIN EVER RECORDED IN CALIFORNIA WAS AT CAMPO IN APRIL 1891. IT RAINED 11½ INCHES IN 80 MINUTES. THIS IS AN AREA WHERE THE STORMS SEEM TO ALWAYS TRACK.

DAMES & MOORE NEVER PUT A WEATHER STATION ON SITE TO MEASURE RAIN AND WIND. ALL THE INFORMATION PRINTED WAS NOT SITE SPECIFIC. WE DID TRY TO GIVE CORRECT INFORMATION TO DAMES & MOORE AND MID-AMERICAN AND OFFERED TO LOCATE SPRINGS AND WATER BEARING FRACTURES FOR THEM. THEY ONLY TALKED DOWN TO US. THEY DID NOT SEEM TO CARE THAT I KNOW THE AREA AND HAVE LOCATED MANY WELLS FOR PEOPLE ALL OVER SAN DIEGO COUNTY. I HAVE WORKED AND BEEN INVOLVED WITH LOCATING WATER WELLS FOR WELL DRILLERS AND GEOLOGISTS. NONE MY LOCAL KNOWLEDGE AND EXPERIENCE IMPRESSED THEM AT ALL. THEY HAVE IGNORED EVERYTHING WE TOLD THEM.

NEEDLESS TO SAY, AFTER HAVING DEALT WITH THESE GUYS AND REVIEWING ALL THE DOCUMENTS I REALIZED THAT I SHOULD FILE A COMPLAINT AGAINST THEM FOR THE FAULTY WORK THEY HAVE DONE AT CAMPO.

THE PROPONENTS HAVE GROSSLY MISREPRESENTED THE STUDY AREA AND AS A CONCERNED CITIZEN I CAN NOT SIT BY AND LET THEM GET AWAY WITH THAT. I HOPE THAT YOU WILL FEEL THE SAME AS I DO.

P & E COM
3/26/93
PAGE 3

AS A SIGN OF GOOD FAITH, I WOULD LIKE CAMPO EPA TO ALLOW THE STATE WATER BOARD OR THE COUNTY TO MONITOR THE STATIC WATER LEVELS AND WELL DEPTHS AS PROVIDED UNDER AB240. IF THE STATIC LEVELS ARE NOT REPRESENTIVE OF WHAT THE COUNTY MEASUREMENTS WERE IN THEIR MARCH 8, 1993 REPORT, THEN I WOULD SUGGEST THAT YOU MAY FIND THAT THE ANNULAR SPACE IN THE WELLS HAS BEEN SEALED OFF DIVERTING THE SHALLOW WATER AND GIVING A FALSE READING. When ERIC GIBSON, THE COUNTY GROUNDWATER GEOLOGIST TOOK WATER LEVELS ON MARCH 4, OF 25 WELLS 20 RANGED FROM ARTESIAN TO JUST 4 FEET BELOW GROUND SURFACE. MR. GIBSON SEEM REAL IMPRESSED WITH WATER LEVELS IN HIGH PLACES ON TOP OF AND ALONG RIDGES IN THE IMMEDIATE AREA OF THE LANDFILL SITE.

EVEN THOUGH WE HAD 32 INCHES OF RAIN SINCE DECEMBER, THIS IS NOT THE HISTORIC HIGH WATER TABLE. IN THE EARLY 1980'S WE HAD THREE YEARS IN A ROW WITH CLOSE TO 40 INCHES. THE WATER TABLE WAS HIGHER THEN THAN IT IS NOW. SEASONAL STREAMS AND PONDS STAYED FULL AND OVERFLOWED FOR SEVERAL YEARS AFTER THE HEAVY RAINS. I TRIED TO TELL DAMES & MOORE AND MID-AMERICAN ABOUT OUR FIRST HAND KNOWLEDGE OF WHAT GOES ON OUT HERE. ALL THEY COULD DO WAS TREAT ME LIKE A DUMB HICK. WELL, SOMETIMES COMMON SENSE AND EXPERIENCE MAKES UP FOR A LOT OF BOOK LEARNING.

SO MANY PEOPLE FROM SO MANY WALKS OF LIFE AND ALL THE REGULATORY AGENCIES HAVE ASKED MANY TECHNICAL QUESTIONSTHAT HAVE NEVER BEEN ANSWERED. SO MY QUESTION IS WHY DO CAMPO PROPONENTS THINK THEY DESERVE SPECIAL TREATMENT? THEY KNOW AS WELL AS WE DO IF YOU LOOKED FOR THE WORST PLACE TO PUT A DUMP YOU COULDN'T FIND ONE MUCH WORSE THAN CAMPO. THE SITE IS ON THE SIDE OF A RIDGE UP HILL FROM EVERYTHING AROUND AND IN A HIGHLY FRACTURED ZONE WITH VERY SHALLOW GROUNDWATER. THE BIA SEEMS TO GO ALONG WITH WHAT THE CAMPO BAND WANTS. I HAVE ALWAYS BEEN BOTHERED BY PEOPLE WHO PLACE THEMSELVES ABOVE THE LAWS OF OUR STATE, ESPECIALLY WHEN THEY AGREED TO BE FUNDAMENTALLY EQUIVALENT. THEN THEY GO AND MISREPRESENT THE FACTS.

P & E COM
3/26/93
PAGE 3

IF THIS LANDFILL IS APPROVED THIS WILL GO TO COURT AND A LOT OF PEOPLE FROM DAMES & MOORE , BIA, CEPA AND OTHERS WILL COME TO JUSTICE. NO JUSTICE NO PEACE. I DON'T THINK LEGAL COUNSEL SHOULD LOOK AT THIS AS A SOVEREIGNTY ISSUE, THIS IS 100% AN ENVIRONEMTAL ISSUE AND YOUR DECISION WILL DETERMINE WHAT WILL HAPPEN IN CALIFORNIA FOR MANY YEARS TO COME. KEEP IN MIND WE DON'T HAVE ACCESS TO IMPORTED WATER AND WE NEVER WILL. THE SAN DIEGO COUNTY WATER AUTHORITY TOLD US THAT IF THEY HAD THE MONEY AND THE WATER IT WOULD COST IN EXCESS OF \$200 MILLION TO EXTEND PIPELINES TO US. THEY DON'T HAVE THE WATER OR THE MONEY. (SEE ATTACHED LETTER)

MR. GOVER IS AN ATTORNEY FOR CAMPO AND HE HAS THREATENED FOR THE LAST FOUR YEARS THAT HE WILL TAKE THIS TO COURT TO PROTECT SOVEREIGNTY. WE STATE AGAIN THAT THIS IS AN ENVIRONMENTAL ISSUE AND WE WOULD LIKE TO SEE THE STATE WITH US ON THIS ISSUE. CALIFORNIA NEEDS TO PROTECT WATER RESOURCES BEFORE PROBLEMS DEVELOP, NOT AFTER THE FACT.

SO AS FAR, AS COURT GOES I SUGGEST THAT MR. GOVER PACKS A LUNCH AND BRINGS A CHANGE OF CLOTHES BECAUSE THIS WILL NOT BE A SLAM DUNK CASE.

THANKYOU.



San Diego County Water Authority

A Public Agency

3211 Fifth Avenue • San Diego, California 92103-5718
(619) 297-3218 FAX (619) 297-0511

February 24, 1993

Ms. Donna Tisdale
President, Back Country Against Dumps
P.O. Box 1275
Boulevard, CA 91905

Pipeline Costs

Dear Donna:

In response to your request letter of February 23, 1993, The following is a brief analysis of potential pipeline costs to serve the Boulevard area from the CWA Aqueduct system.

The CWA operates the imported water aqueduct system in the region. Campo are lies approximately thirty eight miles from the terminus of our system near Lower Otay Lake. The smallest aqueduct in our system is 48" in diameter. While it would not be necessary to build a pipeline this large to serve the demands in the Campo/Boulevard region, as a practical matter, I believe such demands could never support the costs of any aqueduct connection and therefore any pipeline would necessarily be built to provide for potential demands in the intervening territory. For this reason it is reasonable to assume a 48" diameter line for cost estimation feasibility purposes.

A rule of thumb cost for large diameter steel pipes with no unusual construction conditions (i.e., straight, flat, no rock, no groundwater, plenty of work room, reasonable internal operating pressures, etc.) is \$10 per diameter inch per foot. A 48" pipeline therefore is about \$480 per foot. For a thirty-eight mile pipeline of this size including a 15% contingency factor for right of way costs, design costs and administration cost would equal about \$110 million. Given the rough, hard rock terrain which would have to be negotiated on any alignment toward the Campo region, a fifty percent increase on this cost would not be unreasonable. Since Boulevard is another ten mile from Campo another thirty million dollars would be the minimum cost to extend such a line to that region.

Let me restate as I did in my letter of March 6, 1990, that the Authority has no plans for extending service to this region and such a possibility in the future is highly unlikely. Please contact me if you have any further questions.

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• Olivenhan • Rincon del Diablo
• Padre Dam • Valley Center
• Yuima

Sincerely,



Byron M. Buck
Executive Assistant to the
General Manager

Jesse Huff, Chairman
California Integrated Waste Management Board
8800 Cal Center Drive
Sacramento, California 95826

March 26, 1993

Subject: Project No. 409C5.006(4)
Written Comments on Mid-American Waste Systems Inc.
Solid Waste Disposal System Permit Application for
Campo Indian Reservation Landfill Project.

Attn.: Permitting and Enforcement Committee
Jesse Huff, Chairman
San Egigian, Member
Paul Relis, Member

I am submitting these written comments to help the Permitting and Enforcement Committee of the California Integrated Waste Management Board to understand some of the problems of Mid-American Waste Systems Inc. application. Most of the comments have been made before in my letter dated January 13, 1993, but since no satisfactory explanations have been forthcoming, I have included them again in this document. I hope that they will be truly helpful to the committee in your very important actions.

I submit that the authority to construct the waste facility as designed should be denied because the current state of knowledge concerning both the characteristics of the solid waste to be buried and the characteristics of the burial environment are grossly inadequate.

Before getting into the design, I want to express my concern about Mid-American Waste Systems Inc. and CEPA's lack of commitment to increase the understanding of geology and hydrology at the proposed site. The recent wet spell in the area has provided the owner and proposed operator with an excellent opportunity to get more facts about the geology and hydrology of the area. San Diego County has recently recorded the water levels in the surrounding area reported in a letter dated March 8, 1993 concerning Groundwater Monitoring Results-Boulevard/Proposed Campo Landfill Area, prepared by J. Eric Gibson, County Groundwater Geologist. This recent study has shown amazingly high water levels after the 30 inches of precipitation in the area since December 1992. Thirty inches in less than 4 months provides us an important opportunity. When asked if they were recording comparable water levels in the wells on site, Mr. Connolly pointed out they had previously recorded water.

levels in February and they want to wait until the levels stabilize. A series of water levels during the time that they are stabilizing would provide excellent falling head information. I find it difficult to understand the position of CEPA since the recharge rates now used in the studies are at best only educated guesses and should be verified. They apparently have little concern about the basis for their design.

The design presented in the application under consideration is a "Dry Tomb" concept which is a technologically flawed approach for the protection of groundwater quality (Dr. G. Fred Lee 1992*). The natives are being led to believe that this type of landfill is an effective and inexpensive management system for solid waste which protects groundwater quality. They are not being informed that these lined systems only postpone groundwater pollution to the degree that they work, and thereby pass onto future generations (well past the seventh generation) the public health problems, groundwater loss, and economic burden of the management system.

Knowing that the design concept is flawed, the question rests with the character of the waste and the character of the environment of the site.

In the stone age we buried our waste until it contaminated the ground area and then we moved away and started all over again. The character of the waste back then was not as toxic or permanent as it is today. But we still bury the waste today and we don't have an option of moving away. We have run out of places to move. The character of the solid waste in the past was such that left to the natural processes, in time the toxicity of the waste was neutralized. The waste of today contains unidentified organic and inorganic compounds whose public hazards are largely unknown. This stuff has no half life. It lasts effectively forever. Beyond this we know that municipal waste contains up to 0.5 percent of highly hazardous chemicals. We cannot claim ignorance of this fact.

This application asks for your permission to manage municipal solid waste of unknown characteristics in a flawed design concept which only postpones groundwater pollution to the extent that future generations will have to deal with the created problems. In addition, this flawed design concept is sited in an area where pollution will be catastrophic and will destroy the sole source water supply of the communities down gradient from the site including into Mexico.

The problem is compounded by the fact that the flawed design is based on flawed knowledge of the fractured crystalline bedrock which contains the sole

* Lee, G. Fred, PH.D., P.E., and R. Ann Jones PH.D., 1992, Municipal Solid Waste Management in Lined, "Dry Tomb" Landfills: A Technologically Flawed Approach for Protection of Groundwater Quality, Waste Business West, February 1992.

source water supply for the people and livestock in and around the reservation. It is our position that characteristics of the proposed site environment are largely unknown and poorly understood. We submit that the permit application should be denied because of the flawed knowledge of the site and inadequacies of design listed below:

1. Inadequacy No. 1 was found in Section 7.0, STUDY AREA STRUCTURE (Page 66). I call it the case of the missing north-south trending discontinuities. In just 6 months Dames and Moore has lost track of an important set of lineaments. Dames and Moore in their final report, Volume 1, Alternative Site Study, Dated January 15, 1992, referred to the fourth lineament set noted at the surface, which was oriented approximately north-south. They stated that these north-south features are associated with localized secondary surface drainage and are most readily apparent in the east central portion of the proposed site. They went on to characterize these lineaments as being separated by distances ranging from 150 to 1500 feet, with the greatest density of these lineaments along the eastern central portion of the site. Evidence must have existed that indicated these surface trends were reflected in the subsurface as geophysical anomalies and were associated with these north-south lineaments. They noted that the trend of this set of lineaments is approximately coincident with a single regionally pervasive lineament interpreted to trend north-south through the eastern portion of the study area. This lineament was noted to extend intermittently at least 5 miles north and south of the site. They pointed out that this lineament is associated with the broad valley where most of the populace resides adjacent to and east of the site.

Apparently these are important lineaments which are still there but Dames and Moore has lost them. They don't even mention them in the text of the application. They only identify three lineaments: (1) northwest-southeast; (2) east-west; and (3) northeast-southwest. Where are the north-south lineaments which were so carefully identified and characterized six months earlier as described above? Well, they are still there but are being ignored for some reason. I see them in the aerial photographs and I agree that they are associated with surface drainage systems in the area and may be very important in the subsurface drainage systems. There are several springs within the 5-mile-long north-south lineament just east of the site. These are important elements of the subsurface hydrology of the area.

This demonstrates that the detailed knowledge of the lineaments as described in the application is flawed. They then extend this ignorance through the surface mapping and the subsurface features. Their analysis of Figures 7-1, 7-2 and 7-4 shows the same flaw. The missing north-south set of discontinuities are clearly shown on these Figures. These Figures not only show that the north-south sets exist, but are among the dominant lineaments in the study area. Dames and Moore has just ignored them for

some reason. To help communicate these mistakes in analyses I have attached the figures and added the north-south and northeast-southwest strikes which are shown in the data but are not discussed in the text.

Figure 7-1 is a lower hemisphere equal area stereographic projection of poles to joint planes observed at ground surface. There are two sets of north-south trending planes clearly identified on the plots. One set is nearly vertical and is shown by the dark areas on the east and west perimeters of the plot. The other set is striking north-south but dips around 60 to 70 degrees to the east. As I said, these sets are not discussed and, therefore, Dames and Moore's knowledge of the geologic structure is flawed. In addition, what they do discuss in the text points out additional flawed analyses and knowledge. They say, and I quote, "Dips were generally nearly vertical except for the northeast-southwest direction." (page 74). They are obviously identifying the plots of the poles as directional strikes of the planes. Please see the attached Figure 7-1 modified to identify the north-south strikes shown on the plot.

This flaw is expanded as they move to Figure 7-2 when they state that "Northwest-southeast and east-west trends dominate, but with marginally different strikes." (page 74). However, Figure 7-2 shows that north-south and northeast-southwest strikes dominate. Please see the attached annotated figure 7-2. These Dames and Moore statements are not misprints. Dames and Moore is associating the plot of the poles to a directional indication of the strike. These analyses and interpretations are wrong, their knowledge of the fracture system is flawed, and the design which is based on this inaccurate understanding is flawed. I would reject the application on this fact alone.

2. Figure 7-4 presents a lot of information concerning subsurface fracture systems. This subsurface data is not being used to help identify the structural zones which are the basis for the design. It is obvious that northeast-southwest trending discontinuities dominate in the subsurface, as reflected in the geophysical surveys. Please see the attached modified Figure 7-4. However, the structure zones identified in Figure 7-5 show northwest-southeast and east-west trends. They should be looking for north-south trends also. Where are the structural zones which are associated with the northeast-southwest and north-south trending discontinuities? They have a distorted view of the fracture systems and their relationship to the project.

Their understanding of this detailed fracture system is flawed; therefore, their interpretation of the geophysical survey is flawed. Their assignment of structural zones I-IV shown on Figure 7-5 is flawed. These zones may exist but their orientation and location are very likely in error, and they say: "The structural zones will provide a basis for design of the monitoring program in unweathered tonalite." (page 78) Please see

attached Figure 7-5.

They appear to be concentrating upon these structural trends and ignoring the northeast-southwest and north-south trends. Basing ones understanding of the structure of the area on VLF data without confirmation with downhole data and surface data is highly suspect. I for one am not convinced that these 6 zones are all that are active in the area and that they constitute enough reliability and continuity to be used as basis for the design of the monitoring program.

The knowledge that they have misinterpreted the surface data and the fact that these structural zones will provide the basis for design of the monitoring program constitutes ample evidence that the applicants cannot design a functional monitoring program in fractured rock and should be denied the permit to construct.

3. Mid-American Waste Systems Incorporated should be denied this permit because these very important technical flaws presented above have brought into question all the structure and hydrologic data in the study of the site thus far.

How can we believe conclusions based on such poorly understood data and analyses? How can we trust the applicant to follow through with the competent data collection and analyses necessary to carry out the construction and operation, as well as final closure of the project? They have not demonstrated the will or the technical competency necessary to do the additional studies which they must do to insure project design applicability, proper construction, safe operation, final closure and post-closure and maintenance.

The best professional judgment would say that you cannot as yet design, construct and operate a safe solid waste management system in fractured granitic rock (crystalline rock). Even if we use all the will and technical expertise, we cannot safely manage waste disposal in this geologic environment. Failure of this management system means destroying a sole source aquifer system in this country and in Mexico. We cannot afford this failure and, therefore, the permit should be denied.

4. If they know these important north-south discontinuities exist, then why are they being ignored? They should at least be discussed. They may not see their importance and thus ignore them. Or they see their importance and think that knowledge of these important systems should be depressed for the project to be acceptable to the public agencies which need to administer the protection of the public. It is my judgment, that for the safety of the public and the public agencies, the permit should be denied.
5. The structural analyses discussed in Section 10.1.2 (page 141) of the

application refers to three trends when there are actually four trends shown on the surface, including the north-south trends discussed above. They state that these trends are not "through-going" regional lineaments, but they are "through-going." They go through the site and are extensively expressed in the surrounding region. In fact, all of the lineaments found on the site are better exposed in the surrounding region. They say that detailed analysis of the fractures from rock cores and bore hole geophysics also confirm these fracture trends and provide additional information on their dip. Figure 7-4 shows the stereographic projection of the poles of the fractures which shows that the dominant trend is actually northeast-southwest, not northwest-southeast as stated in paragraph 2 of Section 10.1.2 (page 141). The fractures shown on Figure 7-4 indicates that north-south trends are in abundance while east-west trends are hard to find in the plots. These mistakes cannot be ignored and they must be addressed.

They extend their flawed understanding of these systems into the development of an equally flawed hypothesis which is already proved wrong in their own studies. Their hypothesis is that the fracture systems are connected via the major structural zones shown on Figure 7-5 intersected by interconnection of other joint systems to form some subsurface piping system which would allow the monitoring of these structural zones using the designed monitoring system to insure that contaminated fluid could not exit the site without detection. They found few, if any, interconnections of the subsurface hydraulic systems. They have much evidence that the fracture systems control the flow of fluids through the site both vertically and horizontally. Their flawed knowledge of the major structural zones may cause the monitoring systems to be installed in the wrong place to intercept off-site transport of fluids.

Faults have been discovered at the site in recent trenching studies (U.S. Army Corps of Engineers). These faults and their potential impact on the project are not discussed in the application. The predominant trends of these faults are consistent with the northwest-southeast trending structural zones identified in the application as being the basis for design of the monitoring systems. These newly discovered faults provide conduits to deep groundwater systems. This is not discussed and would seem to be fairly important to the general understanding of the fracture system in the area.

Rain water falling on the highly permeable surface soils in the area is quickly absorbed. The water penetrates the fractures and fault systems in the weathered tonalite and the unweathered tonalite which move the water vertically and horizontally down gradient into the groundwater systems beneath the project. The faulting found at the project site now substantiates the hypothesis that water entering the groundwater systems in this recharge area will percolate to great depths and become part of

hydrologic regimes at depth which are controlled by pressure gradients from distant sources.

The Dames and Moore testing program found that there are indeed vertical components of flow at the project. Additionally, they found regional joint systems which are associated with the large regional structural systems such as plutons which have deep structural implications. These faults and joint systems need to be better understood. Additional trenching at the site could discover new faults and help understand these structural systems identified in the application. Without a better understanding of these structures, the application is incomplete and the permit should be denied.

6. They have assumed that flow occurs mostly in the skeletal matrix of the weathered tonalite unit. They then state that this is a fact, supporting the statement with negative interpretations of indirect data such as clay content of fractures and pore space. They introduce large scale pumping test results which suggest that unit flows do not occur along existing highly conductive through-going fracture zones. These and other data may suggest but do not, I repeat do not, prove this hypothesis, yet their design rests on the assumption that the flow in the weathered crystalline rock is through the pore space in the weathered tonalite.

There are 24 Fracture Density Result plots shown on eleven figures (Figures 7-3A through 7-3K) in the application. These fracture density plots relate a cumulative number of fractures with depth. A study of these plots show that in general the rate of indicated fracturing stays constant as it passes from the weathered tonalite into the tonalite. In most of the borings it is shown that there's very little difference in the rate of fractures in the weathered and unweathered tonalite. If anything, these plots show that the number of fractures and rate of fractures varies as the locations of borings vary. There are only a few borings where the number of fractures per depth in the weathered tonalite is less than the number of fractures per depth in the tonalite. This would indicate that the number of fractures per depth is related to the location of the boring rather than the depth of boring.

This data supports the hypothesis that flow within either of the two units, the weathered and unweathered tonalite, is concentrated in the fracture systems rather than the pore spaces.

The concept that differential fluxes of two flow units control the potential chemical concentration detectable at a distance from a source of contaminants is modeled well in porous media regimes such as sandstone. However, the introduction of porous fracture systems changes the equation considerably. Even modeling studies would support the hypothesis that high velocity flow through selected fracture systems would subvert their

conclusion that a groundwater quality problem away from the landfill is not probable. They are assuming that the transmission of the fluids is not through fracture systems in the weathered tonalite. This is just an assumption and the bulk of the direct data supports the opposite view that movement of fluids in the area is through the fracture systems even in the weathered tonalite. The design of the project's monitoring systems rests on this unproved assumption.

They chose 600 feet as the spacing for monitoring wells on the parameter of the site. A lot of unknown permeable fractures can slip through this wide screen. A monitoring well for every 300 feet of the parameter would allow within statistical limits many opportunities for fractures to slip by unnoticed. They recognize this and have introduced Direct Current Electric Surveying (DC) to span the areas between monitoring wells. Theoretically DC Surveys detect changes in electrical resistivity of the fluids in the rock and thereby identify pollution in the near surface groundwater. The proposed design incorporates the establishment of a standard base by running DC Surveys during the first construction phase. Subsequent DC Surveys will be compared with the established standard results in hopes that the development of resistivity anomalies can be related to contamination of the water at depth. The key here is that this is only theoretical and the working system for this site cannot be proven before construction and operation are well on the way. They are heavily depending upon unproven elements in this design. Thus, the permit should be denied.

7. The contingency plans presented in Volume 2, Section 1.2.3, are not sufficiently detailed to make judgments as to their applicability. It is my judgment that they have not been properly developed to reflect the design, construction, and operation of the waste management facility. The rain and wind storm contingency plans are not even mentioned. On page 7 they identify the 100 year flood as a basis for the design but do not describe the situation of a rain storm with appropriate action. On page 9 they identify surface drainage but they do not deal with the problem of either rain or wind storms. These storms need contingency plans.

This means that they have not developed failure or initiating scenarios. They have not related design, construction, and operation details to the contingency plans. They have not described alternatives available within the context of the scenario. They have not specified corrective measures. They have not specified notification and reporting requirements. These are important aspects which are missing in the application and, therefore, the permit should be denied.

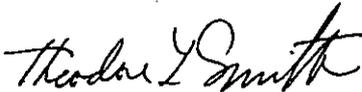
8. Inspection and maintenance programs presented in Section 1.2.4 of Volume 2 are not sufficiently scoped, outlined, scheduled, or manned. They do not specify initiating mechanisms and reporting requirements for the

inspection and maintenance programs. The absence of these important program aspects make it imperative that the permit should be denied.

9. The design as detailed in the permit application will be vastly more expensive than the currently approved and operational landfills in the area. The U.S. EPA indicates that the installation of a single liner system in a landfill increases the project cost by 30%. My best judgment is that if a double liner system is installed, and that the mitigation measures are implemented, that an increased cost of the project, beyond other single lined systems, might impact the economic viability of the project. This double liner system with all the mitigations described in the EIS may put the tipping cost to users beyond what they will pay when more reasonable tipping fees can be secured closer to the waste source. If there is an upset, and remedial activity is required, hundreds of millions of dollars would have to be added to the life cycle cost of the project. My best judgment would indicate that even without upset and remedial costs, the life cycle cost of the project as described in this application would escalate the necessary tipping fees to a point that users would go elsewhere to dump their waste. Because the project's economic viability is in question, the permit should be denied.

In summary, I find this application incomplete, filled with important inadequacies and errors. In addition, I find that the studies, data and analyses presented in this application are flawed, and the permit should be denied. I hope my comments will be helpful in your review of the project and final determinations of your committee.

Sincerely,

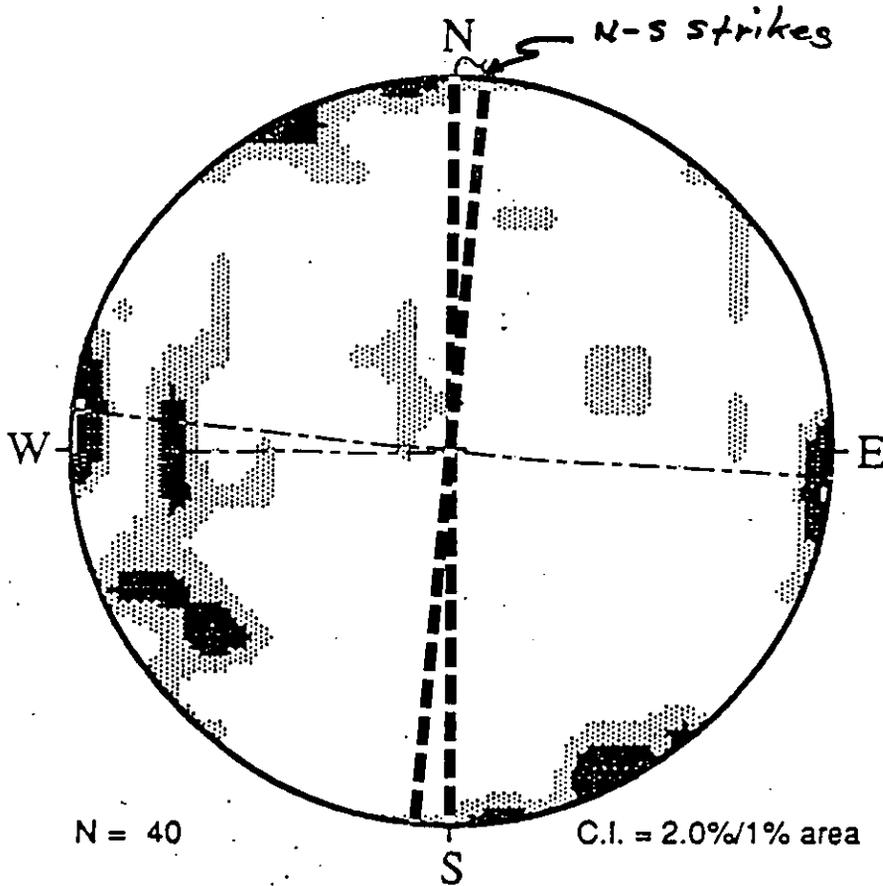


Theodore L. Smith
Certified Engineering Geologist #345
Registered Environmental Assessor #694

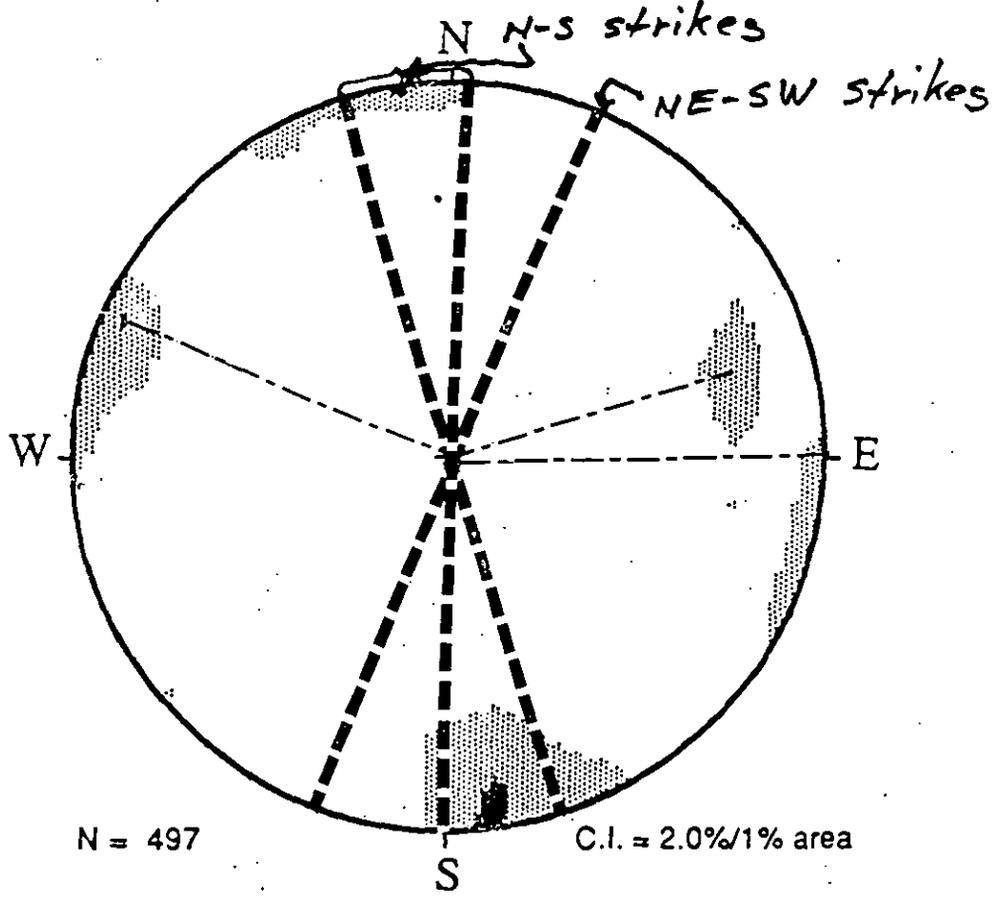
TLS/mcp/rjc/bs

cc: Ed and Donna Tisdale, B.A.D.

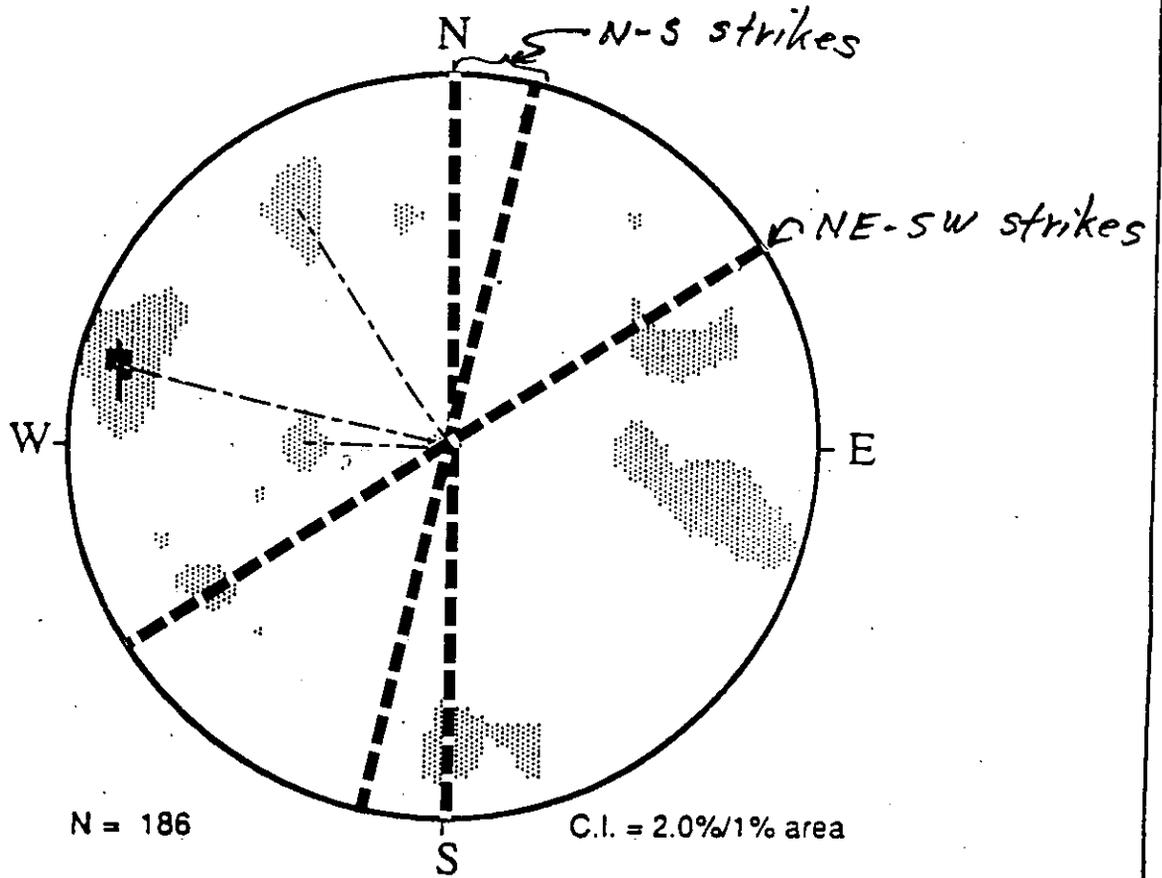
Lower Hemisphere Equal Area Stereographic Projection
of Poles to Joint Planes Observed at Ground Surface

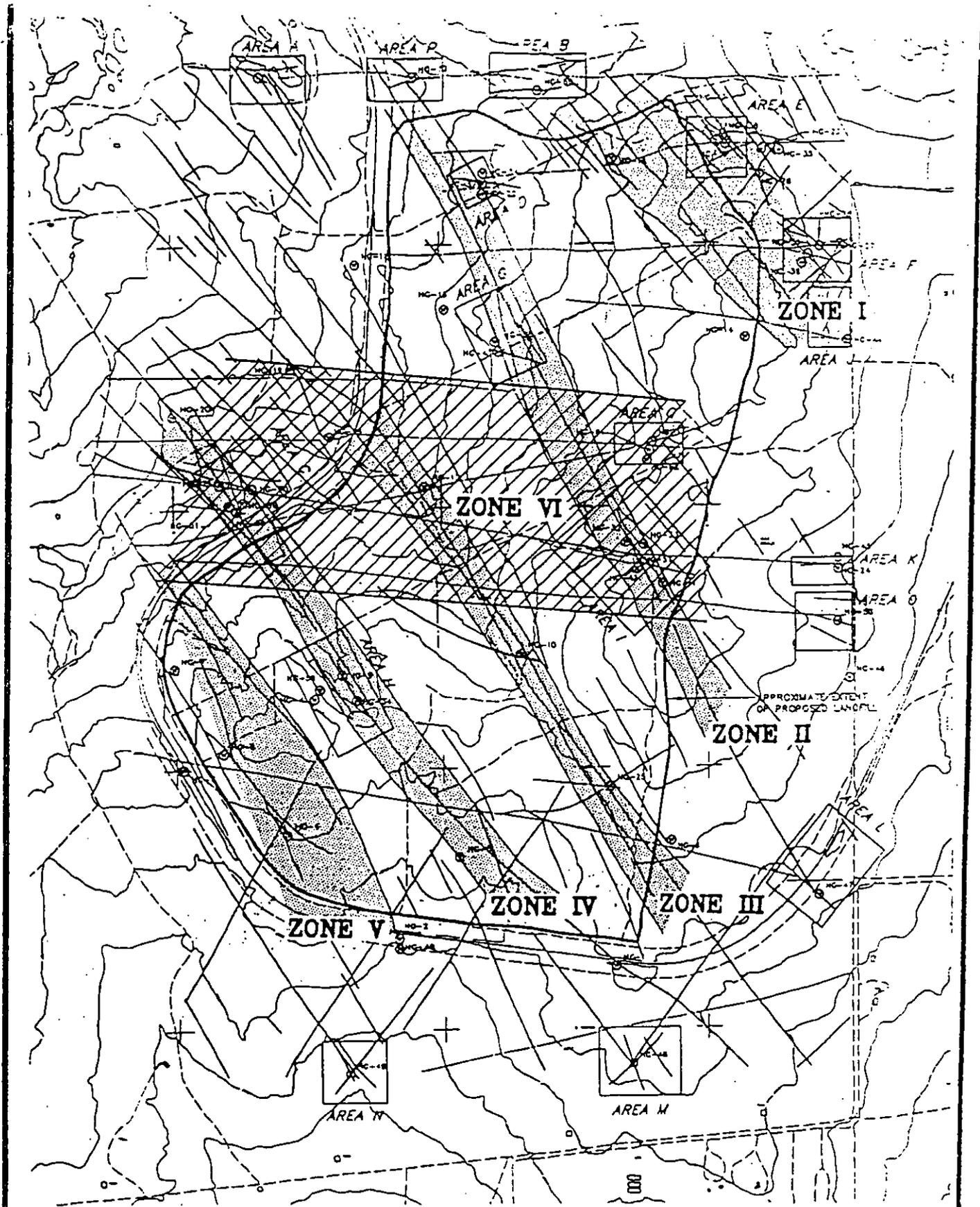


Lower Hemisphere, Equal Area Stereographic Projection
of Poles to Joint Planes Observed During Regional Mapping



Lower Hemisphere, Equal Area Stereographic Projection
of Poles to Fractures Observed in the Subsurface





**LOCATION OF
MAIN STRUCTURAL ZONES**

DAVIS & MOORE

FIGURE 7-184