INITIAL STUDY
FOR THE SESI PROPERTY
CLOSURE PROJECT
OTAY MESA AREA,
SAN DIEGO, CALIFORNIA

VOLUME 1 OF 2

Prepared for:

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SECTION 1.0 – INTRODUCTION

1.1 DOCUMENT PURPOSE AND SCOPE

This Initial Study (IS) was prepared pursuant to the provisions of the California Environmental Quality Act (CEQA) of 1970, and the CEQA Guidelines. This IS provides an assessment of the environmental impacts associated with the proposed closure of the Sesi Property portion of the former Tripp Salvage Landfill (referred to as the Cactus Road Site) in the Otay Mesa area of San Diego County. The project entails closure of the landfill to prevent future impacts to surface water and groundwater and to comply with landfill closure requirements of the California Code of Regulations (CCR) Title 27. The primary closure activities include the construction of a soil cover to encapsulate the waste, installation of drainage improvements to protect the soil cover and prevent erosion, and restoration of the landfill area using native plant species.

The closure plan is contained with the Removal Action Workplan (RAW) for the Sesi Property Closure Project, Otay Mesa, California (ENV America Incorporated [ENV America] 2005). The site was formerly recognized as a part of the Tripp Salvage Landfill. The adjoining Barnhart and Dantzler properties located to the north were also part of the Tripp Salvage Landfill. Closure of the Barnhart and Dantzler Properties was previously assessed in a Mitigated Negative Declaration approved by the County of San Diego in 2000. This IS analyzes the closure of the Sesi Property only.

The primary purpose of this IS is to ascertain whether or not the proposed closure of the site will have potential significant adverse impacts on the environment, as a consequence of closure activities. This IS was prepared pursuant to Section 15063 of the CEQA Guidelines, as amended. Although this IS was prepared with consultant support, all analyses, conclusions, findings and determinations made herein fully represent the judgment and position of the County of San Diego, Department of Environmental Health (DEH), acting as the Lead Agency for CEQA compliance, and as the Administering Agency, by the California Environmental Protection Agency (Cal/EPA) to assure proper site closure.

Based on the CEQA Guidelines, the purpose of an IS as related to the proposed project is:

- To provide the County of San Diego DEH with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration for the proposed project.

- To enable the County of San Diego DEH to require modification of project actions to reduce or eliminate any adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.

- To assist in the preparation of an EIR if one is required, by focusing on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant impacts would not be significant.

- To provide documentation for the findings in support of a Negative Declaration that indicate the proposed project will not have a significant effect on the environment.

For the proposed Sesi Property closure project, the environmental analysis in this IS provides documentation that the proposed project would not have a significant effect on the environment with implementation of the recommended mitigation. Thus, the County of San Diego DEH should adopt a Mitigated Negative Declaration (MND) for the proposed project.

1.2 DOCUMENT ORGANIZATION AND CONTENT

The format and structure of this IS generally reflects that of the Initial Study Checklist provided herein as Appendix I. Following is an annotated outline summarizing the contents by section of this two-Volume IS:

Volume 1:

Section 1.0 – Introduction: Provides the procedural context surrounding the Initial Study's preparation and composition.

Section 2.0 – Project Description: Provides an overview of the proposed project.

Section 3.0 – Environmental Analysis: Contains a discussion of the existing conditions and analyses of impacts associated with the project's closure activities and maintenance actions.

Section 4.0 – Mandatory Findings of Significance: Provides a discussion of how the proposed project might yield or has the potential to yield a significant effect upon any of the resource/issue areas discussed.

Section 5.0 – List of Preparers, References, Organizations/Persons Consulted: Provides the information sources used as the basis for the analyses presented in Section 3.

Appendix I – Initial Study Checklist: Summarizes the contents of the preceding sections with regard to issue-specific significance determinations.

Volume 2:

Appendix II – Construction Emissions: Details expected emissions from anticipated construction equipment to be used and the predicted California vehicle emissions.

Appendix III – General Survey Report: Presents the methodology and results of the biological surveys conducted for the site.

Appendix IV – Cultural and Paleontological Assessments: Presents the cultural and paleontological resource assessments of the site.

1.3 USE OF THIS DOCUMENT

This IS, the draft MND, and the RAW will be circulated for a minimum period of 30 days for public and agency review.

Certain projects or actions undertaken by a Lead Agency may require oversight, approvals, or permits from other public agencies. These other agencies are referred to as Responsible and Trustee Agencies. Responsible, Trustee, and other public agencies and/or entities who may use this IS for informational purposes include, but may not be limited to, the following: California Regional Water Quality Control Board-San Diego Region (RWQCB); California Integrated Waste Management Board (CIWMB); San Diego County Air Pollution Control District; City of San Diego; California Department of Fish and Game; (CDFG) and the U.S. Army Corps of Engineers (ACOE).

These agencies, as well as the surrounding community, and other affected or interested parties, will receive copies of the IS, draft MND, and RAW for review and comment. Comments received will be considered during the County DEH's review of and decision on the project.

SECTION 2.0 – PROJECT DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

The site is located approximately 15 miles southeast of downtown San Diego and about 1.25 miles north of the United States-Mexico International Border. The regional site location is identified on Figure 2-1, Site Vicinity Map. The site is located at 1902 Cactus Road on the westerly side of Cactus Road, between Otay Mesa Road and Airway Road. It is in the Otay Mesa area of the City of San Diego in the County of San Diego, California. The site encompasses Assessor Parcel Numbers 646-100-49, 646-100-59 and 646-100-70. The Otay Mesa area is sparsely developed; the most notable manmade feature is Brown Field, a municipal airport about 1,500 feet north-northeast of the site. The site location is shown on Figure 2-2, Site Location Map.

Otay Mesa (the mesa) is a plateau with relatively mild topographic relief sloping to the west-southwest. The mesa is locally bisected by natural drainage courses, principally draining westward to the Pacific Ocean. The site is at the head of Spring Canyon, a tributary of the Tijuana River.

The site consists of the Sesi Property, which was formerly recognized as part of the Tripp Salvage Landfill. The estimated limits of the landfilled waste within the subject site (Sesi Property) and site topography are presented on Figure 2-3, Site Plan. Also shown on Figure 2-3 are the limits of fill, which include the northerly portion of Spring Canyon, as estimated from pre-landfill topographic maps dated July 1960, prepared by the County of San Diego.

North of the Sesi Property are two parcels referred to as the Barnhart and Dantzler properties, which were also previously used for landfill activity. These three properties collectively were referred to as the Cactus Road Site. Both the Dantzler and Barnhart properties were closed in November 2001 by placement of an asphalt concrete cap. A Mitigated Negative Declaration (SCH #2000021041) was completed in 2000 by the County of San Diego for the closure of these two properties in accordance with CEQA and the properties were closed in accordance with the MND and a Removal Action Workplan (RAW) as required under the California Health and Safety Code, Chapter 6.8.

The Sesi Property encompasses an area of about 33.25 acres and is irregular in plan view. At the time of this writing, the Sesi Property is partially fenced and essentially vacant land, with the exception of a single-family residence at the eastern boundary at Cactus Road. Topographic relief is generally described as mildly sloping to the west-southwest, except along the walls of Spring Canyon. The area of landfilled waste is covered with sparse to moderately thick annual grasses and weeds. The canyon bottom is host to denser wetland [primarily riparian with limited wetland areas further downstream of the limit of work] vegetation and scattered trees. The overall relief of the immediate area of the waste fill is approximately 65 feet, with maximum elevation of about 495 feet above mean sea level (msl) at the easterly limits along Cactus Road, and a minimum elevation of about 430 feet msl in the canyon bottom at the western end of the waste fill slope. Overall surface drainage in the area is generally to the west.

The climate in the vicinity of the site is warm, with dry summers and mild winters. The mean annual precipitation is about 12 inches (Department of Water Resources, 1986). During periods of adequate precipitation, surface water run-on from north and east of the site flows onto and across the landfilled waste and drains into Spring Canyon. Surface water action has eroded the property surface and fill material from the western slope face and deposited it at the toe of the slope in Spring Canyon. Prominent erosional scars (i.e., rilling) exist along the western slope face.

REFERENCE:

1-BY-2 DEGREE SERIES U.S.G.S. TOPOGRAPHIC MAP OF SAN DIEGO, CALIFORNIA, DATED 1958, REVISED 1978. ORIGINAL SCALE ON BOTH MAPS: 1 INCH = 250,000 FEET

0 5 MILES

APPROXIMATE SCALE

Chambers Group

SITE VICINITY MAP
Sesi Property Closure Project
Otay Mesa, San Diego
Figure 2-1

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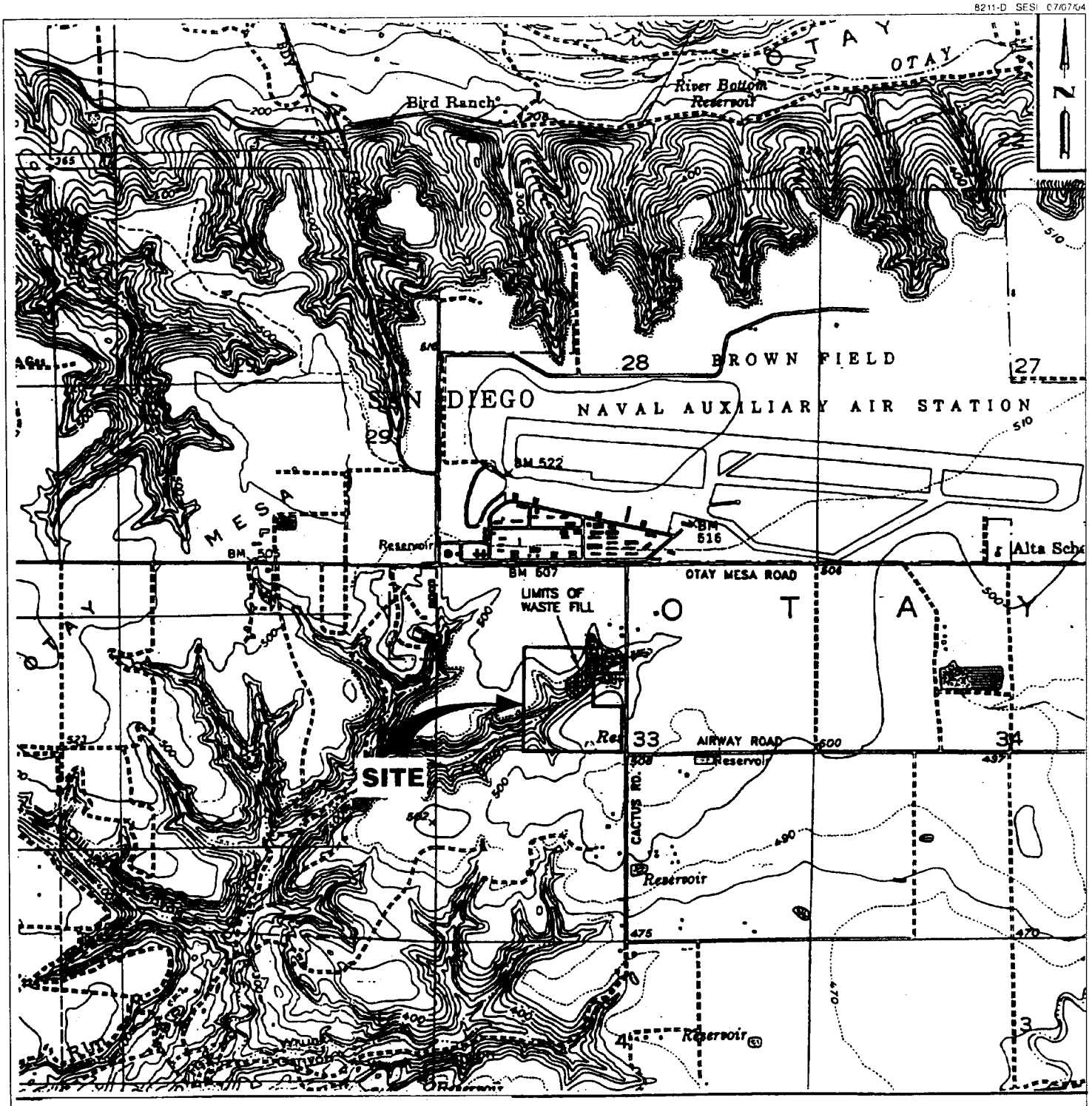


REFERENCE:

7.5 - MINUTE U.S.G.S. TOPOGRAPHIC MAPS OF:
- IMPERIAL BEACH, CALIFORNIA - BAJA CALIFORNIA NORTE, DATED 1967, PHOTOREVISED 1975.
- OTAY MESA, CALIFORNIA, DATED 1955, PHOTOREVISED 1971, PHOTO INSPECTED, 1975.

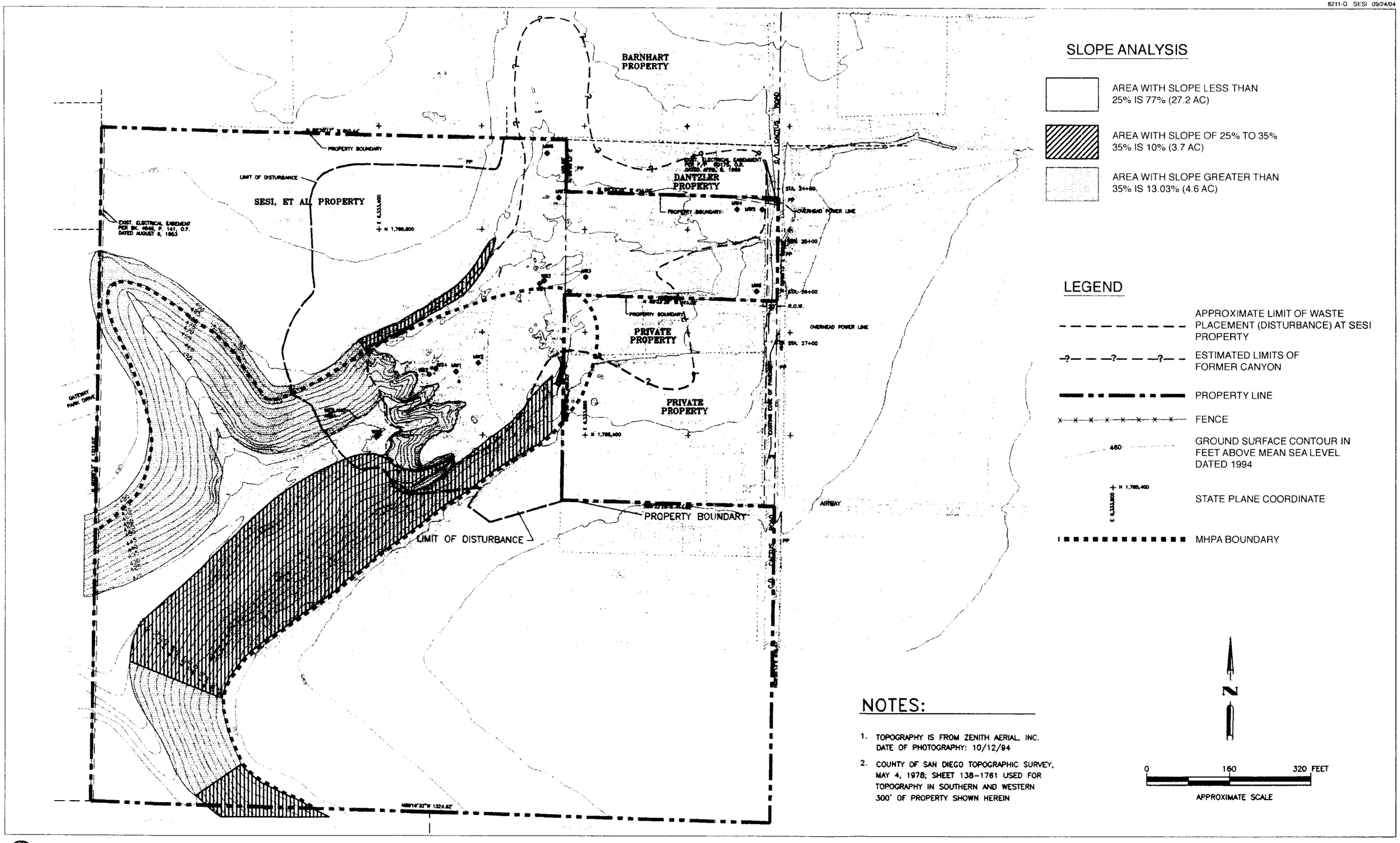
ORIGINAL SCALE ON BOTH MAPS: 1 INCH = 2,000 FEET

0 2,000 FEET 4,000 FEET

APPROXIMATE SCALE

Chambers Group

SITE LOCATION MAP
Sesi Property Closure Project
Otay Mesa, San Diego
Figure 2-2



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SITE PLAN
Figure 2-3

2.2 LAND USES

Properties in the site vicinity are used for industrial, agricultural, and residential purposes. The Sesi Property was landfilled and left in a disturbed state. The neighboring Barnhart Property contains a small bungalow dwelling at the extreme northeastern corner of the property. The neighboring Dantzler Property contains a house and mobile home located along the north-central portion of the property, and a storage shed along the western edge of the property. Shrubs, grass, and a few small trees around the house are the only vegetation on what is generally paved by asphaltic concrete. An auto wrecker is just northeast of the site and a residence is located on the eastern end of farm property, east of the site. One of the former landfill parcels (and not part of the subject project) is located just east of the head of Spring Canyon and contains an occupied residence. The next parcel to the south has an occupied residence and has been paved and is used for open car storage. Adjacent to this property to the south is the single-family residence located on the Sesi Property.

Cactus Road is located immediately east of the Sesi property trending in a north-south direction. Cactus Road is currently a 20-foot wide asphalt roadway within an existing 40-foot easement, supporting two-way traffic with width to accommodate one lane in each direction. Cactus Road is designated as a 4-lane collector road in the City of San Diego's Adopted Circulation Plan (City of San Diego 1999). Under this designation, Cactus Road would be widened and improved in accordance with the Adopted Circulation Plan as future development of properties along Cactus Road may occur in accordance with the Otay Mesa Community Plan, which is currently in the process of being updated and is expected to be approved in March 2005 (Personal Communication, Max Stalheim, Senior Planner, City of San Diego, December 11, 2003).

Caltrans proposes to extend State Route 905 (SR-905) from the Interstate 805 (I-805) area west of the site to the Otay Mesa International Border Crossing east of the site (Caltrans 2004). The southern edge of the proposed SR-905 right of way is planned to be approximately 200 feet north of the site (see Figure 2-4).

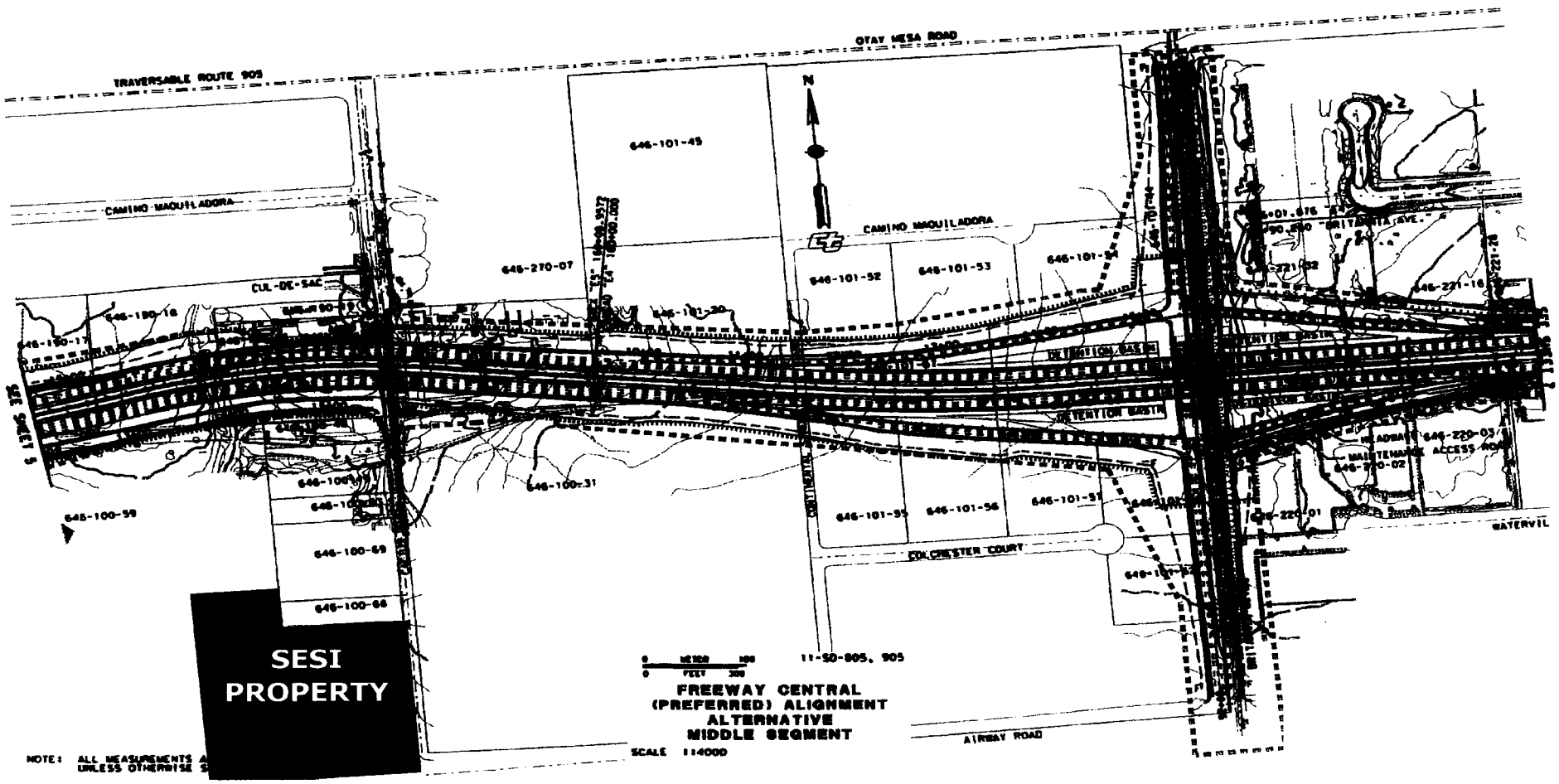
The project site is located within the Otay Mesa Development District, Chapter 10 of the City's Municipal Code and the Otay Mesa Community Plan, adopted in 1981, and currently being updated.

2.3 SITE HISTORY

From approximately 1968 to 1977, the landfill, referred to as Tripp Salvage, accepted wastes that primarily consisted of material from the processing and shredding of automobiles (auto shredder waste) under a "Rubbish Dump Permit" (Permit No. 6-0132), issued by the State of California, Department of Conservation, Division of Forestry on July 18, 1973. The auto shredder waste was placed in Spring Canyon and intermittently covered with soil generated from cuts adjacent to landfilling operations. The cut/borrow soil was excavated from portions of Spring Canyon slopes adjacent to the landfill operation. Between June and July of 1987, burn dump ash and burn ash contaminated soil (ash) were placed in the landfill area of the site. The ash reportedly originated from the former Rancho Carrillo Municipal Landfill in Coronado, California. Litigation followed the dumping of the ash. The settlement of litigation has provided funds for the proposed landfill closure project.

2.4 PROJECT OBJECTIVE, REGULATORY FRAMEWORK, AND PERMITTING

Closure of the site is based on site characterization and engineering evaluations presented in the RAW prepared by ENV America (2005). The RAW is a remedy selection document that is prepared for a hazardous substance release site pursuant to Health and Safety Code (HSC) Section 25356.1. The RAW is prepared when a non-emergency removal or a remedial action is proposed at a release site which is projected to cost less than $1,000,000. The RAW is a plan that is developed to carry out a remedial action in an effective manner and protective of human health and safety and the environment. The RAW includes detailed engineering plan for conducting the remedial action, a description of the



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SR-905 ALIGNMENT IN RELATION TO PROJECT SITE
Figure 2-4

onsite wastes, the goals to be achieved by the action, and alternative options that were considered and rejected with the basis for that rejection. The RAW approval process requires the CEQA discretionary review and approval of the project.

Based on the assessment of closure alternatives evaluated in the RAW for the Sesi Property, the site has been slated for closure by means of capping the waste materials in-place. Information on the parties responsible for site remediation is presented in Section 2.5.4.

The County of San Diego, Department of Health (DEH) was designated as the lead agency under CEQA, and will oversee site remediation and closure. The designation was determined at the September 25, 1996 meeting of the Site Designation Committee of the California Environmental Protection Agency (Cal/EPA). The purpose of the Site Designation process is to allow a Responsible Party who agrees to carry out a site investigation and remedial action to request the Site Designation Committee (Committee) within the Cal/EPA to designate a single state or local agency (Administering Agency) to oversee the site investigation and remedial action. The Committee consists of six members representing the Cal/EPA, the Air Resources Board (ARB), the Department of Toxic Substances Control (DTSC), the Office of Environmental Health Hazard Assessment (OEHHA), the State Water Resources Control Board (SWRCB), and the Department of Fish and Game (DF&G). For all actions requiring CEQA compliance, the Administering Agency would, under most circumstances, act as CEQA "lead agency" for the remedial action while Support Agencies should act as CEQA "responsible agencies" or "trustee agencies." To reduce review time and optimize the CEQA and permitting processes, agencies are encouraged to combine the permit application and review process with the CEQA process, to the extent practicable.

The County DEH is the administering agency responsible for overseeing the remediation of this site pursuant to Section 25262 of the California Health & Safety Code. As the CEQA Lead Agency, the County DEH will be responsible for certifying the MND, permitting the project, and for ensuring that the mitigation measures identified herein are properly implemented. The Sesi property also lies within the City of San Diego's Otay Mesa Community Planning Area and also incorporates the preserve areas of the City's Multiple Species Conservation Program (MSCP) (see Figure 2-3, Site Plan). As such, the City of San Diego's Environmental Analysis Section (EAS) of their Land Development Review (LDR) Division has worked closely with the County in review of this MND prior to its release for public review. The project was reviewed in accordance with CEQA and the City's Environmentally Sensitive Lands (ESL) ordinance. The project has also received unanimous support from the Otay Mesa Planning Group.

Closure of the site is subject to Section 25323.1 (Removal Action Workplan) of the California Health and Safety Code, Chapter 6.8. In accordance with this section, ENV America (2005) prepared a RAW under the direction of the County DEH. Following implementation of the RAW, the City of San Diego Solid Waste Local Enforcement Agency will assume post-closure inspection responsibility for this disposal site under the authority of California Public Resources Code, Division 30, Part 4, Chapter 2, Article 1, Section 43209.

Several permits or approvals also will be required as part of the process. These are shown in the table below.

Agency	**Permit or Approval**
County of San Diego DEH	Approval of the RAW, Adoption of the MND and Site Development Permit
City of San Diego	Grading Permit
California Department of Fish & Game	Streambed Alteration Agreement
U.S. Army Corps of Engineers	Nationwide Permit
California Regional Water Quality Control Board	Water Quality Certification, NPDES Stormwater Permit Associated with Construction Activity

2.5 PROPOSED PROJECT

The proposed project for closure of the waste fill at the Sesi Property is the construction of a low permeability engineered cover, along with the implementation of a post-construction monitoring and sampling program. The cover would control exposure of the waste, and prevent surface water infiltration, thereby decreasing mobility of chemicals within the waste, as briefly described below and described in detail in the RAW (ENV America 2005).

2.5.1 Cover Construction

The planned closure construction for the Sesi Property includes three major engineered features: a low permeability final cover, surface drainage structures, and a toe buttress. Cover design follows the general requirements of California Code of Regulations (CCR) Title 27 for landfills. The design plan for the Sesi Property is shown as Figure 2-5 Closure Plan Design.

The low permeability final cover will be placed over the entire surface area of the existing waste fill within the boundaries of the Sesi Property. The proposed final cover system for the surface of the waste fill will consist of soil layers designed to minimize infiltration and support vegetation. The cap will be placed over an area of approximately 4.6 acres at the Sesi Property. The closed landfill and associated soil borrow and grading activities will cover approximately 9.3 acres of the Sesi Property.

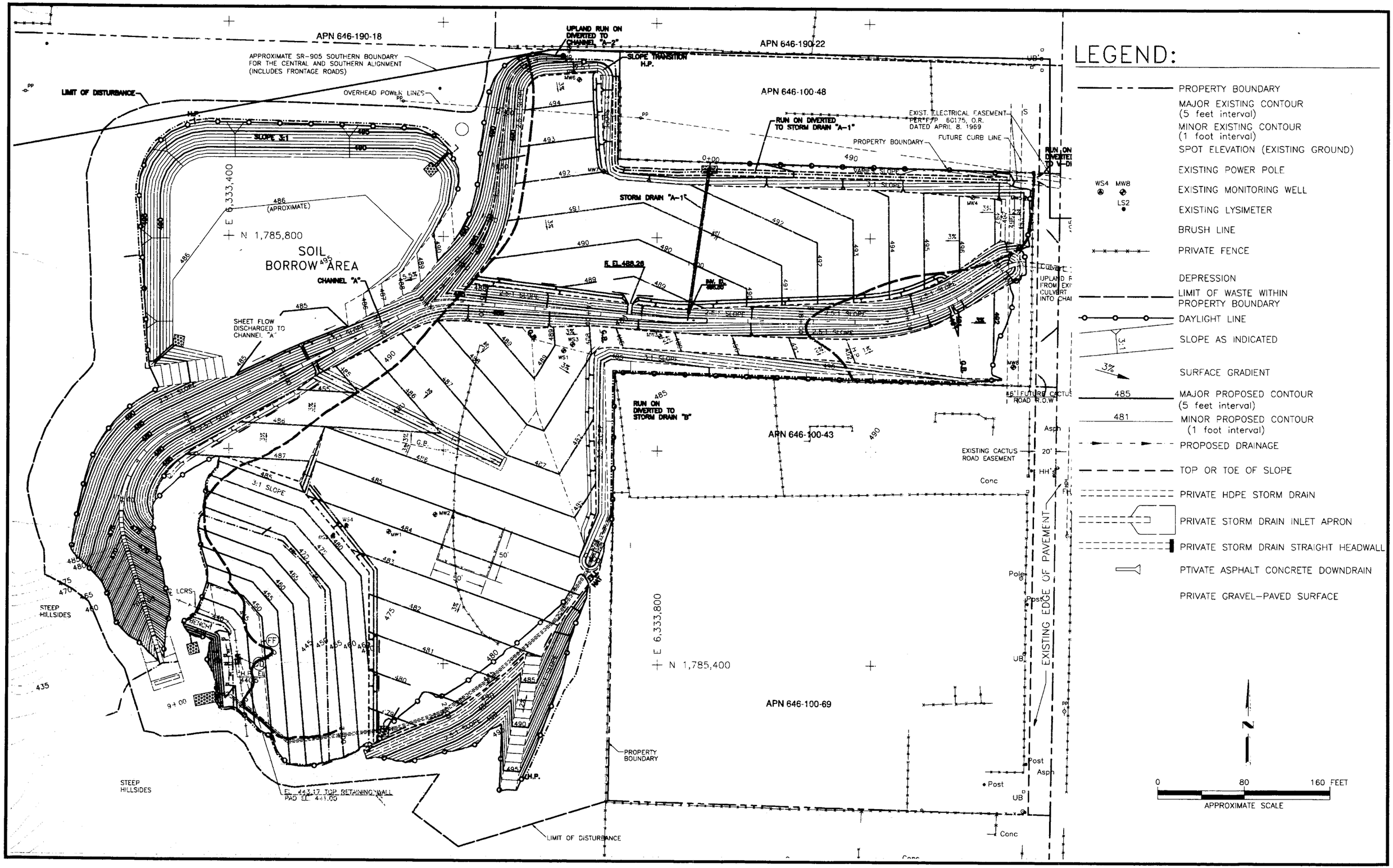
At present, the waste at the Sesi Property is locally covered by limited soil, which is sparsely vegetated. Prior to placing the proposed final cover soil material vegetation and surface debris will be removed. All exposed waste will be graded as necessary in order to contain the waste below the proposed final cover. The design has been prepared to minimize the excavation and handling of waste materials. The proposed final cover soil materials will be placed in layers, moisture conditioned, and compacted.

Engineering analyses for the final cover soil slope descending into Spring Canyon indicated that flat or low angle slopes would be required to maintain adequate stability. In lieu of constructing a flat slope, a toe buttress was designed to allow construction of a 3 horizontal to 1 vertical (3:1) final cover slope. The toe buttress will provide support to the final cover slope, maintaining stable slope conditions. The steeper slope was the preferred alternative as it will minimize grading in the sensitive habitat areas at the bottom of the canyon. The toe buttress is an engineered soil berm with a relatively impermeable downstream section and a permeable upstream section that will intercept any water draining from within the fill during and after closure construction. Dewatering wells incorporated into the buttress design will collect water. Water will be pumped from the wells and transported offsite for disposal as part of post-closure maintenance.

The upper portion of the final cover layer will consist of a minimum 1.5-foot-thick vegetative layer that will exceed the minimum CCR Title 27 requirement of 12 inches. The thicker vegetative layer will reduce the possibility of desiccation cracking in the lower portions of the final cover and is better suited to accommodate the root penetration of the vegetation under consideration for use at this landfill. This vegetation shall consist of drought tolerant perennial shrubs and grasses native to the region.

Select soil for use in the upper 6 inches of the vegetative layer will be obtained by stripping the topsoil from the borrow area. The vegetative layer shall be placed and compacted using conventional earthmoving equipment. Upon completion, the vegetative cover shall be seeded with drought tolerant native plant species with the surface mulched to minimize seed loss.

For the area of 3:1 front slope, the design includes 2 feet of vegetative soil cover to provide additional protection against erosional rilling in that area. Grading and compaction will be performed to minimize ponding and erosion.



CLOSURE PLAN DESIGN
Figure 2-5

Proper vegetative growth and maintenance will be essential to minimize erosion of the topsoil layer and maintain the integrity of the low permeability layer. In accordance with CCR Title 27, proper maintenance shall include regular care of the vegetative cover, controlled access to the property, and regular inspection of the final cover. The maintenance program shall be provided for thirty years or until the waste no longer poses a threat to groundwater or the environment per requirements of CCR Title 27. Additionally, the first 5 years of monitoring and maintenance shall also meet the monitoring and success requirements of the City of San Diego Development Code.

Approximately 10,200 tons (~6,800 yd^3) of material low permeability clay will be brought to the Sesi Property via trucks from the Otay Annex Landfill approximately five miles away, where it will be placed and compacted according to design specifications. Alternative sources nearby the Otay Mesa may be considered depending on timing and availability of soil material. Approximately 2,000 tons of rip-rap rock and 600 tons of sand will be imported from local sources to the site to support the drainage structure and toe buttress.

2.5.2 Drainage Controls

Surface water drainage will be controlled by directing water that flows onto the property from surrounding areas, as well as site runoff, into an engineered drainage feature that will be constructed on the final cover. The approach will minimize lengths of surface water channels over the waste area. The surface water will be discharged to the existing natural stream channel at the toe of the proposed landfill slope.

Permeable riprap and gabion channel protection were selected to reduce velocity and erosion. Concrete lined channel sections were limited to short sections where additional protection against erosion is required. Soil berms will be constructed at the edge of the top deck where surface runoff will flow down side slopes. The runoff will be collected and drained into an open channel by asphalt concrete lined down drains. Where closed depressions occur as the result of construction of the final cover, such as the north side of the Sesi Property, drainage will be provided by pipe culverts through the final cover section.

2.5.3 Environmental Controls and Monitoring

During construction, dust, runoff, noise, site access, and traffic will be managed according to applicable regulations. Surface water will be controlled using Best Management Practices (BMPs), such as sandbags, berms, swales, and silt fences to eliminate contact with the waste and to control sediment from leaving the construction area. A Storm Water Pollution Prevention Plan (SWPPP) consistent with State and City requirements has been prepared for the project as a stand-alone document (Rick Engineering, 2004). A native vegetative cover will be reestablished on the surface for both erosion control and biological mitigation. Subsurface liquid will be extracted from the toe buttress extraction wells and placed in temporary above ground tanks or directly into tanker trucks. If required, the water will be treated and discharged in accordance with applicable discharge requirements. Worker and Community Health and Safety Plans were developed by ENV America (2005) and incorporated into the RAW to minimize physical hazards and exposures of workers and local residents during implementation of the plan.

Environmental monitoring systems, consisting of 12 groundwater monitoring wells and 2 lysimeters, are currently in operation at the site. Lysimeters are devices used to measure the spatial and temporal variability of contaminant transport in soil. Ten of the existing monitoring wells will be retained to monitor site conditions after closure. Two wells and the two lysimeters, located in or near the waste, will be removed to accommodate cover implementation. All of the other environmental monitoring systems will be protected and completed to final grades. During abandonment or modification of wells or lysimeters, quality control observations and testing will be performed under the direction of the Site Engineer or Engineering Geologist.

2.5.4 Post-Closure Monitoring and Maintenance

A Post-Closure Maintenance Plan was developed by ENV America (2005) and incorporated into the RAW to maintain long-term environmental control and monitoring systems and the integrity of the site. Periodic monitoring of existing groundwater elevations and quality will be performed by collecting samples from selected existing wells. Wells will be monitored on a regular basis using commercially available equipment. When the water level within the toe buttress reaches a predetermined elevation, the generated water will be evacuated from the wells, treated if necessary, and disposed of offsite. The extent and duration of post construction monitoring will be dependent on the quantity and quality of the generated water. Water quality in the liquid collection system will be evaluated upon completion of the system and thereafter in accordance with the waste discharge permit for the site. Once the water quality reaches the discharge requirements, the California RWQCB will be consulted for direct discharge to Spring Canyon.

The final closure construction will include establishment of permanent monuments (benchmarks) outside the area of final cover that will be used for monitoring the settlement of the landfill as per the requirements of CCR Title 27. The closed landfill will also be inspected and monitored for occurrence of localized differential settlement, integrity of the final cover system, site security, and condition of drainage devices on a quarterly basis. Based on these inspections, maintenance activities will be implemented to correct observed deficiencies.

Upon completion of the closure, in accordance with CCR Division 2, Title 27, Section 21170, the project proponent or property owner will record on the deed of the subject property, with the County Recorder, a detailed description of the landfill closure. Information required to be recorded is outlined in the code.

2.5.5 Construction Schedule

In order to control migration of water, construction activities would occur during a dry period. Major closure construction is expected to occur over an 18-week period. Surface debris clearing, removal of heavy brush and installation of storm water BMPs is expected to commence approximately September 2005, following receipt of permits and approvals. Major earthwork and drainage improvements would be completed by the middle of July 2006. Depending on the timing of permit approvals, sensitive species breeding periods, or groundwater conditions within the landfill, portions of the completion of construction may be delayed. Project site revegetation, including mitigation, would be completed in late fall to early winter to coincide with prime planting and seeding periods. Post-construction monitoring and maintenance would begin immediately after the completion of construction.

2.5.6 Responsible Parties

In connection with the Court-approved settlement of litigation over the remediation of Sesi property, a reimbursement fund – called the “Cleanup Fund” – was established to fund the remediation of the Sesi Property. The use of the funds in the Cleanup Fund is subject to the oversight, review, and approval of the United States District Court, Southern District of California. The court-supervised fund is designed both to provide the necessary money to install the engineered cap as proposed in the RAW and to monitor activities.

SECTION 3.0 – ENVIRONMENTAL ANALYSIS

3.1 SCOPE OF ANALYSIS

This section analyzes the potential for significant environmental impacts that may result from the closure of the Sesi Property portion of the former Cactus Road Site. The technical analysis of issue areas are based on the documentation contained in the "Removal Action Workplan (RAW) for the Sesi Property Closure Project, Otay Mesa, San Diego, California," prepared by ENV America for the coordinating committee, U.S. District Court, San Diego, California (ENV America 2005).

The format of this environmental analysis reflects the County of San Diego's Environmental Analysis Form. Each key issue area presents a summary of the existing conditions and environmental setting, followed by a description of the thresholds of significance used to determine the level of significance of project impacts. These thresholds will assist the County of San Diego in determining whether there is a potential for significant effects on the environment.

With regard to the identification of thresholds for significant effects, Section 15064 (b) of the CEQA Guidelines provide the following guidance:

> *"The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not possible because the significance of an activity may vary with the setting."*

For the evaluation of potential adverse environmental impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study's preparation. To each question, there are four possible responses:

- *Not Applicable.* County staff is of the opinion that, as a result of the nature of the project or the existing environment, there is no potential for the proposed project to have an effect on the resource.

- *Less than Significant Impact.* County staff is of the opinion that the project may have an effect on the resource, but there is no substantial evidence that the effect is potentially significant and/or adverse.

- *Less than Significant Impact with Mitigation Incorporated.* County staff is of the opinion there is substantial evidence that the project may have a potentially significant adverse effect on the resource. However, the incorporation of mitigation measures or project changes agreed by the applicant has clearly reduced the effect to a less than significant level.

- *Potentially Significant Impact.* County staff is of the opinion there is substantial evidence that the project has a potentially significant environmental effect and the effect is not clearly avoidable with mitigation measures or feasible project changes. "Potentially Significant Impact" means that County staff requires the preparation of an EIR for the project.

This landfill closure project is the mitigation of a currently disturbed site. Thus, by its design, mitigation measures are the fundamental component of the project description and construction effort to close the Sesi Property portion of the Cactus Road Site. For this type of project, as long as those mitigation measures which are built into the project are considered to be effective and not result in other significant impacts, no other mitigation would be required and a less than significant impact would result. If a significant impact would occur, then additional mitigation would be required and a determination will be needed as to whether the impact would be mitigated to a level that is less than significant.

3.2 LAND USE & PLANNING

Environmental Setting

Historically, the general site vicinity land uses included agricultural and industrial uses, as well as undeveloped land. Currently, nearby properties are used for industrial, agricultural, and residential purposes. The project site (a portion of the Sesi Property) has been left disturbed by past landfill activity. North of the Sesi Property are two parcels referred to as the Barnhart and Dantzler properties, which include land that was also considered part of the Tripp Salvage Landfill (see Figure 2-3, Site Plan). Portions of these two properties were also left disturbed from former landfill activity. In order to reduce water quality impacts related to the disposal of ash and auto shredder waste at the adjacent properties, an asphaltic concrete cap was constructed in November 2001 over the landfilled areas of the two sites. As stated in Section 2.1, a Mitigated Negative Declaration was completed by the County of San Diego DEH for the closure of the Barnhart and Dantzler Properties, and remediation has been completed.

To the east side of Cactus Road and just south of the Otay Mesa Road are H. Baza Farms (set back along Camino Maquiladora), the Cactus Recycling Facility, agricultural uses, and various trucking facilities. Property adjacent to the south side of the project site contains an occupied residence and a vehicle storage yard at the next parcel to the southeast. A residence also exists on the Sesi Property immediately south of this property. Along the west side of Cactus Road and just south of Otay Mesa Road are Crazy Guys Communications (set back along Camino Maquiladora), Pacific Bell, the Chapel of Good News, the Gateway Truck Park, agricultural lands, and other various trucking facilities.

Cactus Road is located immediately east of the Sesi property trending in a north-south direction. Cactus Road is currently two-lane asphalt roadway. Cactus Road is designated as a four-lane collector road in the City of San Diego's Adopted Circulation Plan (City of San Diego 1999). Under this designation, Cactus Road would be widened and improved in accordance with the Adopted Circulation Plan as future development of properties along Cactus Road may occur in accordance with the Otay Mesa Community Plan.

Caltrans proposes to extend State Route 905 SR-905) from the Interstate 805 (I-805) area west of the site to the Otay Mesa International Border Crossing east of the site (Caltrans 2004). The southern edge of the proposed SR-905 right of way is planned to be approximately 200 feet north of the site (see Figure 2-4).

The site is within the Otay Mesa Community Planning Area, a developing area of the City of San Diego. The area is bounded by the Otay River Valley and the City of Chula Vista on the north, the International Border on the south, Interstate 805 on the west, and the County of San Diego on the east. It is envisioned that Otay Mesa will be a major employment center and home to a future population of 32,000 residents. The Otay Mesa Community Plan, adopted in 1981, is currently being updated (estimated completion date unknown). The intent of the update is to establish a framework for future development that will "raise the standard of expectations" for Otay Mesa (City of San Diego website, www.sandiego.gov 2003).

In 1997, an updated land use map was completed for the Community Planning Area incorporating the preserve areas of the City of San Diego's Multiple Species Conservation Program (MSCP). The updated land use plan identifies the Sesi Property as industrial and open space, with the open space areas of the property including portions of a Multi-Habitat Planning Area (MHPA). Areas north and south of Spring Canyon and the surrounding area south of the Brown Field Airport are zoned primarily as industrial (City of San Diego 1997).

Thresholds of Significance

For the purposes of this analysis, a project will have a significant impact on land use and development if it results in any of the following:

- a conflict with the adopted environmental plans and goals of the community in which it is located;
- a disruption or division of the physical arrangement of the community;
- a conflict with the established recreational, educational, or scientific uses of the area;
- a displacement of a large number of persons;
- incompatibility with existing land uses in the vicinity; or
- a conversion of prime agricultural land to non-agricultural use or impairment of the productivity of prime agricultural land.

Environmental Assessment

A. Would the project conflict with the general plan designation or zoning?

Not Applicable

The proposed project involves the remediation of a former landfill area into open space uses. As noted, the project site is designated by the city of San Diego's Otay Mesa Community Plan as industrial and open space. The site has a zoning of OMDD- Industrial Subdistrict. No zoning or use designation changes are proposed as part of the project, thus there would be no adverse impacts to the general plan or zoning.

B. Would the project conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?

Less than Significant Impact with Mitigation Incorporated

The City's MSCP Subarea Plan contains policies and directives, including compatible activities and land uses, for each MHPA subarea. The MSCP Subarea Plan finds that restoration of land disturbance activities, such as sand and gravel mining operations, is a compatible activity within the MHPA. The project is compatible with the MSCP and with the City's MHPA, as the project consists of closure of an existing landfill and is similar to the scope and goals of quarry restoration. On May 7, 2003, the City met with the wildlife agencies to evaluate the requirements for a boundary line adjustment as a condition of the closure and restoration of the former landfill. These agencies agreed that no boundary line adjustment was required based on the planned closure construction, restoration and land use proposed by the project.

The project is consistent with the current land use zoning for the site and the general plan, and there is no projected reuse of the project site after the landfill is closed. As an inactive landfill, the project site currently functions as open space. Following closure of the landfill, the project site will remain as open space and there are no planned land uses adjacent to the MHPA. In addition, the project would not significantly adversely affect agricultural and other resources in the area and the project would not displace or disrupt any residences or communities. The presence of the landfill will impact land use, in that development on landfill portions of the project site will be restricted by local, state, and federal regulations. The requirement for maintaining the integrity of the final cover, drainage, and monitoring systems will impede traditional development, and will severely restrict the types of structures that can be built over the closed landfill.

To offset impacts to the land during the closure process, the proposed project incorporates preservation, restoration, and revegetation back to open space and is subject to the Land Use Adjacency Guidelines of the MSCP, which would ensure its compatibility with existing surrounding land uses. The Land Use Adjacency Guidelines require that all new and proposed parking lots and developed areas in and

adjacent to the MHPA must treat urban runoff prior to discharging into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment. This project does not include buildings or paved parking areas, and closure of the landfill will be in compliance with Land Use Adjacency Guidelines since the primary goal for closure is to control the release of potentially harmful chemicals to the environment.

Mitigation Measures:

Mitigation Measures BR-1 through BR-4 provided in Section 3.8 *Biological Resources* would ensure the project remains consistent with the adopted MSCP and MHPA.

For project areas outside the MHPA boundary, the Land Use Adjacency Guidelines of the MSCP would govern the compatibility of the proposed project with the adjacent MSCP Subarea Plan and MHPA boundaries.

C. Will the project be compatible with the existing land uses in the vicinity?

Less than Significant Impact

The Otay Mesa Area is a low intensity industrial/agricultural area. Currently nearby properties are used for industrial, agricultural, and residential purposes. The project site is proposed for open space uses and would not have an adverse impact on existing and future adjacent land uses.

D. Would the project affect agricultural resources or operation (e.g., impact to soils or farmlands, or impacts from incompatible land uses)?

Not Applicable

The project site is essentially vacant and is not in agricultural use. The Department of Conservation's Important Farmland Geographic Information System (GIS) coverage (2001) shows Farmland of Statewide Importance located adjacent to the south side of the project site. Because the project site is disturbed from former landfill activities, no impacts to agricultural resources are anticipated.

E. Would the project disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?

Not Applicable

The project site is in a mainly rural area that is essentially vacant. There are scattered residences in the general area, including residential structures on the adjacent Barnhart and Danztler properties. However, there are no residences onsite that would be displaced or disrupted as a result of the proposed landfill closure. No impact would occur to disrupt or divide the physical arrangement of an established community.

3.3 POPULATION AND HOUSING

Environmental Setting

The project site vicinity can be characterized as rural with a mix of agricultural and industrial uses. The population and existing housing in the vicinity is scattered amongst the mix of these land uses. This population is minimal and no housing developments are planned proximate to the site.

Thresholds of Significance

For the purposes of this analysis, a project will have a significant impact on housing and population if it results in any of the following:

- a substantial growth or concentration of population;
- a displacement of a large number of persons;
- an exceedance of official regional or local projections; or
- a displacement of affordable housing.

Environmental Assessment

A. Would the project cumulatively exceed official regional or local population projections?

Not Applicable

The proposed project does not involve any type of development. Therefore, no direct or indirect population increase would be associated with project implementation.

B. Would the project induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension or major infrastructure)?

Not Applicable

The proposed project is a landfill closure. Therefore, no direct or indirect growth related impacts or need for infrastructure expansion would occur.

C. Would the project displace existing housing, especially affordable housing?

Not Applicable

The proposed project only involves the capping of the affected landfill areas of the project site. No housing would be displaced as part of the project, and no impacts would occur.

3.4 GEOLOGIC PROBLEMS

The information contained in this section has been derived from the RAW prepared for this project by ENV America (2005).

Environmental Setting

Geologic Setting

The site area is located in the eastern limits of the San Diego Embayment, on the Otay Mesa. The entire site is underlain by bedrock strata, principally comprising claystone and sandstone, that is assigned to the Tertiary Age Otay Formation. The Otay Formation is estimated to be more than 1,000 feet thick in the site area. The formation predominantly consists of very stiff to hard claystone, and hard siltstone, with subordinate units of dense and friable sandstone.

The Lindavista Formation unconformably overlies the Otay Formation and is present along the sides of the waste fill area. The Lindavista Formation has an approximate thickness of 30 feet within the immediate site area. The formation was observed to be cobble to boulder conglomerate with a clayey to silty sand matrix.

Quaternary Slopewash, natural topsoil that develops on sloping terrain, was mapped on the southern wall of Spring Canyon, which is immediately downstream from the landfilled waste. The slopewash thickness is estimated to be greater than 3 feet. The unit consists of medium to dark brown, loose to medium dense, silty gravelly sand.

Quaternary Alluvium, natural water-lain soil, was mapped along the bottom of Spring Canyon and is concealed beneath the waste fill materials. The combined thickness of the alluvium varies from about 3 to 5 feet. The alluvium consists of locally derived, fine and coarse-grained sediments. The fine grained soils contain clay and the coarse-grained subunit consists of gravelly sands and sandy gravel.

Artificial Fill Materials

The site contains a landfill with a combination of auto shredder waste, burn dump ash, and miscellaneous fill. Auto shredder waste consists of shredded automobile waste, admixed with soil. The auto shredder waste included mostly rubber stripping, rubber and plastic fragments, tires, fan belts, fabric, aluminum sheeting, and glass. The admixed soil generally consists of dark grey to brown silty sand.

The burn dump ash (ash) is a soil containing approximately 10 to 20 percent waste material (i.e., glass/ceramics). The ash was observed in exposures and boreholes, principally composed of silty sand with scattered glass and ceramic shards. The ash is located generally at the western limits of the waste fill and comprises the eroded slope face. The ash is classified by the California Department of Toxic Substance Control as nonhazardous.

The overall waste fill surface is mantled by a veneer of heterogeneous miscellaneous fill soil. In general, this fill was observed to consist of grey to brown silty sand, clayey sand, and gravelly sand. Scattered debris is common, including auto shredder waste, wood, asphalt, and concrete rubble. The thickness varies from less than 1 foot to as much as 5 feet. A large artificial fill exists at the eastern portion of the site and is part of the roadway embankment for Cactus Road where it crosses Spring Canyon.

Faulting

The most prominent fault projecting through San Diego Bay is the Rose Canyon Fault. It is located about 6 miles to the west of the site, and is the closest known active fault. The La Nacion Fault, located about 2.5 miles to the north-northwest of the site, is the closest known potentially active fault. Most of the faults to either side of the site display normal, westerly-dipping movement.

An earthquake search was performed for events within a radius of 100 miles from the site from 1880 to 1994, and with magnitudes ranging between 4.5 and 8.0 using the computer program EQSEARCH (Blake 1994). The search identified 385 historic events, the closest located 20 miles to the northeast of the site.

<u>Thresholds of Significance</u>

For the purposes of this analysis, a project will normally have a significant adverse environmental impact if it results in the following:

- exposure of people or structures to major geologic or seismic hazards; or
- the damage or destruction of unique geologic features.

<u>Environmental Assessment</u>

A. Would the project result in or expose people to potential impacts involving fault rupture?

Not Applicable

There are no known or mapped faults that trend directly through the site and the potential for direct surface fault rupture is considered remote. The property does not lie within an Alquist-Priolo Earthquake Fault Zone, which are zones around faults that have been established by the State of California as requiring special fault studies prior to siting any structures within them. Thus, the proposed project would not be subject to fault rupture hazards.

B. Would the project result in or expose people to potential impacts involving seismic groundshaking?

Not Applicable

As noted the La Nacion Fault, located about 2.5 miles to the north-northwest of the site, is the closest known potentially active fault. Moderate to major historic earthquakes have not occurred locally in the greater San Diego area. The project site is proposed for open space uses and would not result in or expose people to potential impacts involving seismic groundshaking.

C. Would the project result in or expose people to potential impacts involving seismic ground failure, including liquefaction?

Not Applicable

Liquefaction is the loss of soil shear strength in loose, saturated, granular soils because of excessive water pressure buildup which develops from seismic shaking. The liquefaction potential of the landfilled waste and its foundation materials (i.e., underlying soil and rock) were evaluated by ENV America for the estimated seismic loading and perched water conditions.

The liquefaction potential of the waste foundation materials was considered negligible because of the inherent fine-grained texture, the relatively indurated (i.e., cemented) nature, and other observed and recorded engineering parameters of these deposits. The auto shredder waste was also considered non-liquefiable due to the nature of the material (containing large amounts of rubber, plastic, fibrous material, and other automobile pieces and debris) and its high permeability.

The burn dump ash and soil mixture, primarily located along the western end of the landfill cell, was the only material considered to be possibly susceptible to liquefaction. ENV America evaluated soil sampling data generated from the drilling of borings. The data represented the thickest and most susceptible material at the site, and included a 50-foot ash-soil mixture near the western slope face. ENV America also conservatively assumed a perched groundwater depth of about 20 feet below the landfill surface, which was considered typical of high groundwater levels at the site. Anticipated groundwater depths will be considerably lower once the landfill surface has been capped.

The liquefaction potential was assessed using simplified empirical procedures (Seed, H.B. 1986), based on borehole drilling data. The results of ENV America's analysis indicate the liquefaction potential of ash-soil mixture to be low under the estimated accelerations associated with the Maximum Probable Earthquake, with a factor of safety (FOS) greater than 2. In addition, the project site is proposed for open space uses and would not result in or expose people to potential impacts involving seismic ground failure or liquefaction.

D. Would the project result in or expose people to potential impacts involving seiche, tsunami, or volcanic hazard?

Not Applicable

There are no dams located near the site which may create seiche hazards in the event of an earthquake or levee failure. The project site is located approximately 8.5 miles inland from the Pacific Ocean and thus, the site would not be exposed to a tsunami. No volcanoes are located near the site which would present volcanic hazards. Thus, no impact would occur due to seiche, tsunami, or volcanic hazards.

E. Would the project result in or expose people to potential impacts involving landslides or mudflows?

Less than Significant Impact

The project site has a low potential for landslides or mudflows. The methods proposed for construction of the landfill closure, as discussed below in Item F, would help guard against erosion and slope instability. The project site is proposed for open space uses and would not create or expose people to potential impacts involving landslides or mudflows.

F. Would the project result in or expose people to potential impacts involving erosion, changes in topography, or unstable soil conditions from excavation, grading, or fill?

Less than Significant Impact

The project site is proposed for open space uses and would not expose people to potential impacts involving erosion, changes in topography, or unstable soil conditions. The topography of the site would change slightly due to the filling of low areas. The final design would smooth the landfilled areas of the site and eliminate the erosional scars that are now onsite. The proposed final cover system consists of minimum engineered soil layers totaling 4.5 feet thick. Overall, the general elevation of the site would not change and impacts to already disturbed topography are considered less than significant.

The methods proposed for construction of the landfill closure combined with final contour design would minimize any potential impacts from erosion or unstable soil conditions. Construction methods are presented in Section 2.5.1.1. The 3:1 slope above Spring Canyon was considered to have a potential for instability due to a saturated, soft clay layer within the alluvium underlying the waste fill. Based on site conditions and slope geometry, a buttress fill solution was designed that provides a satisfactory factor of safety meeting the regulatory requirements. The buttress fill design consists of a central fill 55 feet wide at its base and 23 feet high. The base of the fill would be keyed into bedrock, about 20 feet below the existing grade in the canyon bottom at the toe of slope. The central portion of the buttress fill would be constructed with structural fill (compacted to 95 percent relative compaction). The remaining fill would be engineered fill compacted to 90 percent relative compaction. To prevent excess pore pressures from developing in the slope, a buttress drainage system consisting of a gravel filled trench drain below the bottom of the key and connected gravel drainage blanket placed against the upstream buttress excavation slope would be built. With the buttress design in place, the proposed project would not be subject to slope instability.

For the area of 3:1 front slope, the design includes two feet of vegetative soil cover, mid-slope terrace drains, and is planned for hydro seeding and mulch treatment. The design features will provide additional protection against erosional rilling, and resulting sediment generation in that area. In addition, grading and compaction would be performed to minimize ponding and erosion. To provide maximum stability and minimal care, the seed mix plant species shall have shallow roots, and survive the arid climate of the site with minimum irrigation and maintenance (native plants). The proposed final cover system for the waste fill would reduce the possibility of desiccation cracking in the final cover and would be better suited to accommodate the root penetration of the vegetation, thus reducing erosion. Proper maintenance would include regular care of the vegetative cover, controlled access to the property, and regular inspection of the final cover. Thus, the proposed project would have less than significant impacts due to erosion or unstable soil conditions.

G. Would the project result in or expose people to potential impacts involving subsidence of the land?

Less than Significant Impact

The major factors contributing to the settlement of a landfill include nature and composition of the waste, initial waste density, content of decomposable materials in the waste, waste fill height, method of construction, initial moisture content, leachate level and fluctuation, and environmental factors, such as precipitation and temperature. The maximum settlement would take place in the deeper portions of the

former canyon. The grading design considered the effect of the estimated settlement on drainage of the landfill surface. The proposed grades were established to mitigate the estimated settlements and maintain positive drainage (ENV America 2005) throughout the closure period.

In order to mitigate the impacts of potential further settlement, the final closure construction would include establishment of permanent benchmarks outside the area of the final cover that would be used for monitoring the settlement. The closed landfill would also be inspected and monitored for localized differential settlements. Settlement monitoring following the closure would be carried out by surveying the landfill cover surface every 5 years, in accordance with CCR Title 27, Section 21090. During periodic inspections, any substantial areas of depressions would be identified. Based on these monitoring and visual inspections, the landfill surface would be treated as required to maintain surface drainage, integrity of the final cover, and to minimize infiltration into the waste. With the proposed monitoring in place, there would be no adverse impacts due to ground settlement.

H. Would the project result in or expose people to potential impacts involving expansive soils?

Less than Significant Impact

Expansive soils contract (i.e., shrink in volume) when allowed to dry, and expand when the moisture content increases. The only relatively expansive soils that currently exist onsite are located within the alluvial deposits that are buried beneath the landfill materials as discussed in the setting section. These existing expansive soils are not laterally extensive and are expected to remain moist to saturated at all times, as they are deeply buried. The proposed landfill cover would be partially composed of clay-rich materials which are likely to be expansive. However, the proposed cover would not include structures that will be susceptible to effects of expansive soil. Therefore, no significant impacts from expansive soils are expected.

I. Would the project result in or expose people to potential impacts involving unique geologic features?

Not Applicable

The subject site has been disturbed by past filling, grading, and erosion. There are no unique geologic features on the site. Thus, no impacts would occur with site closure.

3.5 WATER

The information contained in this section has been derived from the Hydrogeology Report prepared by ENV America (1996) and RAW prepared for this project by ENV America (2005).

Environmental Setting

Surface Waters

Surface hydrology of the region is dominated by the Otay River and Lower Otay Reservoir, located about 1.5 miles north and 4.5 miles northeast of the site, respectively. Water is impounded in the Lower Otay Reservoir at the head of the Otay River. The Otay River drains to the west into San Diego Bay. Surface runoff in the immediate site area drains to Spring Canyon, which is a tributary channel of the Tijuana River.

The property receives run-on of offsite surface-water from the area east of Cactus Road, and the area north of the site. The area east of Cactus Road is largely undeveloped, agricultural property. Water drains beneath the road via a 48-inch diameter culvert constructed of reinforced concrete pipe which outlets within the project site. The project site also receives runoff from a commercial/industrial development north of the site via a reinforced concrete pipe which outlets into a swale just north of the project site boundary.

The surface water discharged onto the landfilled waste from offsite sources is estimated to be of significant quantities, as compared to direct onsite precipitation. Onsite surface water runoff is generally directed southward to the Spring Canyon drainage. However, local topographic depressions are common on the landfilled waste surface area, suggesting infiltration through a relatively thin, permeable soil cover.

Groundwater

The project site is situated in the San Ysidro Hydrologic Subarea, within the Tijuana Hydrologic Area of the Tijuana Hydrologic Unit (RWQCB 1991). The principal groundwater body in the region occurs in deep sand and silt units within the Otay Formation. Based on available water well data, the depth to the principal groundwater body is on the order of about 425 feet below ground surface (bgs) (DWR 1986).

Three distinct, shallow water-bearing units have been identified at the site: the alluvial material within the Spring Canyon drainage, the landfilled waste, and a water-bearing unit in the Otay Formation.

Unconfined groundwater exists in the alluvium, both beneath the waste and downstream of the property. Based on the local geology and hydrology, it appears that the majority of the flow in the alluvium from the base of the landfilled waste is from recharge from both topographically upgradient runoff and downward migration and percolation of water through the waste.

There is shallow unconfined groundwater in both the auto shredder waste and the burn dump ash deposits. Groundwater in the landfilled waste flows southwesterly parallel to the former channel of the Spring Canyon. Based on the water level information collected from the onsite wells and field observations, there are indications that the waste deposits respond rapidly to recharge from precipitation events. The water level increases noted in the monitoring wells indicate that run-on onto the site is the major source of recharge to the landfilled waste with minor contribution of direct infiltration from precipitation.

There is an upper water bearing unit found at approximately 60 to 80 feet bgs in the Otay Formation. This zone has been evaluated by four monitoring wells on the property. The unit appears to be separated from the landfilled waste and alluvial deposits by 3 to 12 feet of claystone and silty claystone. Along the northern portions of the property, this zone is unconfined, and becomes confined toward the southern portion of the property. While water level information from the wells indicate that the unit is sensitive to changes in recharge associated with precipitation, based on water quality information, the major recharge source of the site is surface run-on and infiltration of water from sources located off the site. Thus, the composition of the Otay Formation is such that this upper unit is not in contact with the principal water-bearing aquifer, which is approximately 425 feet bgs.

Water Quality

Department of Water Resources water well information in the general vicinity of the property was reviewed. The majority of listed wells are deep-irrigation wells, pumping from water bearing strata at depths greater than 500 feet below ground. Historic background water quality information obtained from samples collected from these wells indicates that total dissolved solids and chloride concentrations are generally above drinking water standards.

Groundwater quality information has been evaluated at selected locations and selected subsurface materials on the site on at least six separate occasions, prior to sampling by ENV America. ENV America's sampling of groundwater was conducted with the constituent list limited to volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), major anions and cations, and selected metals. Other compounds and chemicals have been detected during the previous sampling by others.

VOCs. Traces of aromatic hydrocarbon compounds (benzene, toluene, xylenes, ethylbenzene [BTEX] and carbon disulfide) were previously detected in the auto shredder waste and burn dump ash. The recent samples support the previously collected information. Only BTEX has been found in the upper water-bearing unit of the Otay Formation and the samples indicate that benzene and toluene concentrations are relatively constant over time. Seasonal variation in the concentrations of the VOCs

found indicates that there is probably a concentrating effect due to infiltration and water stagnation within the landfilled waste. Of the VOCs detected in groundwater in the waste materials, only benzene is of concern. The proposed final cover is designed to minimize the infiltration of surface water into the waste and, once constructed, will provide a measure of protection of further impact to groundwater. A program to monitor groundwater is also part of the project.

SVOCs. During sampling events, Bis(2-ethylhexyl)phthalate and 2,4-Dimethylphenol were detected. However, the chemicals were only detected in the water-bearing unit of the landfilled waste materials. Bis(2-ethylhexyl)phthalate is a plasticizer that is extremely common due to leaching of PVC well casing. It was found in only one well in the auto shredder waste and it is not regarded as a major concern.

The second SVOC found during sampling, 2,4-Dimethylphenol, is a major constituent of a common degreaser (Xylenol). It has been found that this compound is detected only when water levels in the waste material are high. Remediation of the 2,4-Dimethylphenol left entrained in the waste would only be accomplished by excavation or extensive chemical and biochemical treatment, which are all considered economically infeasible for this site. Once the water management system is installed, operational, and the source of recharge is removed, concentrations of 2,4-Dimethylphenol in the water from the waste material are expected to decrease. A program to monitor groundwater is also part of the project.

Metals. Groundwater samples detected concentrations of lead, zinc, arsenic, copper, cadmium, barium, nickel, and total chromium. Among these metals, the most notable are the lead and arsenic concentrations.

Major anions and cations. The results of the sampling detected sodium, potassium, calcium, magnesium, sulfate, bicarbonate, and chloride. Generally speaking, water quality within the waste material is poor, with high concentrations of chlorides, sodium, and bicarbonate. The total dissolved solids concentration in all the tested water is above the recommended drinking water standards.

Thresholds of Significance

For the purposes of this analysis, a project will have a significant adverse impact on water resources or water quality if it results in any of the following:

- substantial degradation of water quality or contamination of the public water supply;
- substantial degradation or depletion of groundwater resources;
- substantial interference with groundwater recharge; or
- substantial flooding, erosion, or siltation.

Environmental Assessment

A. Would the project result in changes on absorption rates, drainage patterns, or the rate and amount of surface runoff?

Less than Significant Impact

Surface runoff in the immediate site area drains southward into Spring Canyon, which is a tributary channel of the Tijuana River. The design of the cover system would reduce absorption and infiltration such that containment of the buried waste would occur. By limiting absorption, the rate of surface runoff would increase from current conditions to rates similar to native soils in the area. The project's proposed drainage control system for run-on from adjacent areas, and runoff from waste fill would mitigate potential damages to landfill cover and associated containment or monitoring structures. Solutions to control run-on at the limit of the final cover include berms and perimeter channels. Soil berms would be constructed at the edge of the top deck where surface runoff would flow down the side slopes. The runoff would be collected and drained into an open trapezoidal channel by asphalt concrete lined down drains. Where closed depressions occur as the result of construction of the final cover, (north side of the project site) the drainage would be provided by high density polyethylene (HDPE) pipe culverts through the final cover section.

Riprap channel lining would be used for open drainage channels with gradients less than 5 percent. Where the main channel crosses the landfilled waste, a PVC liner would be constructed to minimize infiltration. The PVC liner will be installed in accordance with the minimum standards provided in the RAW. A concrete-lined channel would be used for the main drainage channel down drain where flow is directed into Spring Canyon. Gabions would be used to construct a stilling basin at the toe of the down drain in Spring Canyon. Flows within Spring Canyon below the stilling basin will be contained within the natural drainage channel. The finished landfill surface shall be graded to minimum 3 percent slopes. Lesser slopes were provided with an effective system to promote surface drainage from the covered wastes.

Peak runoff calculations were generated for the pre- and post-closure scenarios. In accordance with state and federal regulations for landfill closure design, runoff must be controlled by the landfilled waste surface runoff management system designed to address runoff for a 100-year 24-hour storm event. The existing peak runoff for a 100-year 24-hour storm event has been calculated to be 307 cubic feet per second (cfs). The post closure scenario assumed that the upland 150 acres would be converted from farming to developed commercial/industrial land with an increase in runoff. This was considered to be a conservative assumption for the sizing of the channel conveying run-on through the site. Based on the analyses, the system was designed for run-on flows of 364 cfs.

Various post-closure measures would be required by City permit and would account for all project maintenance as presented in Permit Condition WQ-1 below. With those measures, impacts to the changes in absorption rates, drainage patterns, and amount of surface runoff would be less than significant.

Permit Condition:

WQ-1: Various post-closure measures would account for all project maintenance. These shall include visual inspection of drain pipes and channel flowlines for debris, other obstructions, breaks, and identification of areas where bank vegetation is overgrown or other conditions are impairing the functioning of the drainage channel. Maintenance shall include cleaning channel and pipes, regrading and shaping channel flowlines and slopes, reseeding slopes, or replacing damaged culverts.

B. Would the project result in the exposure of people or property to water related hazards such as flooding?

Not Applicable

The design of the drainage system as discussed above in Item A would control surface water flows so that no houses or structures near the site or the closed landfill would be subjected to flooding or other water related hazards. Implementation of the proposed project would not result in the exposure of people or property to water related hazards such as flooding.

C. Would the project result in discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)?

Less than Significant Impact

Currently, surface debris and exposed landfilled materials at the site have the potential to be entrained in drainage moving across the site and result in contamination of surface waters. The project involves capping and revegetation of the site and providing drainage controls, which would improve the quality of surface water runoff. The following permit conditions ensure that potential water quality impacts remain below a significant level.

Permit Conditions:

WQ-2: BMPs shall be used to reduce water quality impacts during the construction. Specifically, the following shall be completed to divert storm water flow and prevent soil erosion: placement of temporary diversion structures, silt fences, sand bag basins and berms in and around work and slope areas. Soil stockpiles shall be covered during non-work hours to abate dispersion by both wind and rain. Periodic street sweeping shall be performed to prevent the tracking of soil onto Cactus Road. A gravel stabilized construction entrance shall be installed at all points where construction vehicles ingress and egress from the site to ensure that sediments are not tracked offsite. The stabilized construction entrance shall be graded and maintained to prevent runoff from the site from flowing across the entrance onto public roads.

WQ-3: The contractors shall cover exposed waste during non-working hours with compacted clean soil to reduce water quality impacts.

WQ-4: During construction, the contractors shall divert surface water flows from disturbed areas and exposed waste to reduce water quality impacts.

WQ-5: Silt fences, earth berms, catch basins, and other containment structures would be constructed to contain any erosion or siltation that may result from the grading. Other appropriate storm water practices would be incorporated as consistent with construction sites. These measures shall be implemented during construction by the contractor.

WQ-6: The contractor shall check that trucks are cleared of excess soil adhering to the body of the trucks as a result of loading.

WQ-7: A Storm Water Pollution Prevention Plan, listing relevant BMPs and showing locations of control systems, and Water Quality Technical Report (WQTR) will be submitted to and approved by the City prior to construction. The plan shall be implemented during construction by the contractor.

D. Would the project result in changes in the amount of surface water in any water body?

Less than Significant Impact

The project could result in temporary changes in the amount of surface water runoff from the site, which could enter Spring Canyon. Increases in surface water runoff could occur as a result of temporary vegetation clearing and grading activities. Implementation of the BMPs as described above in subsection C would reduce the potential for changes in the amount of surface water to a less than significant level.

E. Would the project result in changes in currents, or the course or direction of water movements?

Less than Significant Impact

The project would not alter the course or direction of water downstream of the site. The Spring Canyon drainage would only be altered in the immediate area of the landfill to control runoff and infiltration as part of the closure action. Run-on and run-off would be directed away from the waste fill slope in an engineered drainage channel.

F. Would the project result in change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

Less than Significant Impact

The majority of the groundwater entrained in waste at the site has surface run-on as its source. During closure construction at the site, a final cover with appropriate drainage controls would be installed that would route run-on across the site rapidly and minimize infiltration of that run-on during conveyance. In

addition, a liquid collection system consisting of a gravel trench drain at the toe of the landfilled waste is planned. The collection system would extract subsurface liquid from the trench to temporary above ground tanks or to transfer trucks. Four options would be considered and implemented for the collected liquid as follows:

- Direct discharge with minimum treatment under an National Pollutant Discharge Elimination System (NPDES) permit,
- Treatment and discharge under an NPDES permit,
- Discharge into a sewer system for treatment at a Publicly Owned Treatment Works (POTW) facility, and
- Transported and discharged at licensed recycling facility.

Based on the quantity and concentration of chemicals in the subsurface liquid, one or more options would be implemented for the proposed project.

The proposed project includes a water management system for dewatering. Construction activities will likely be scheduled to occur during the dry months of the year. Liquid production and groundwater drainage would occur until a steady state condition is established within the water-bearing units at the project site. The drainage would be accelerated during construction activities due to disturbance of the toe of the landfilled waste. Once construction is complete, a volume of liquid would be collected at the buttress and would be managed and disposed of properly. Thus, with the water management and liquid production collection systems there would be a less than significant impact in the quantity of groundwater, either through direct additions or withdrawals.

G. Would the project result in altered direction or rate of flow of groundwater?

Less than Significant Impact

Site geology indicates that groundwater flow within geologic units at the site is negligible. The site is situated at the head of the incised section of the drainage basin with little or no alluvial material upstream of the property. The upper water-bearing units of the Otay Formation are separated from the landfilled waste by a claystone layer. Also, water quality information confirms the separation of groundwater by the claystone layer. Thus, the majority of groundwater entrained in waste at the site is due to run-on as its source. The removal of source is expected to have a reduction in rate of flow within waste resulting in a beneficial change in water quality. Due to the claystone layers, changes in the water flow within waste is not expected to impact flow of groundwater in underlying bedrock units. Therefore, the project would have no adverse impacts to the direction or rate of flow of groundwater.

H. Would the project result in impacts to groundwater quality?

Less than Significant Impact

As stated in Item G above, the groundwater entrained in waste is separate from the lower water bearing unit under the site. Because infiltration would be controlled on the surface of the site, there is the potential for the project to result in improved water quality in the lower water bearing unit. However, it is suggested that sources of trace contaminants found in the lower water bearing unit are due to the area's wide array of industrial and agricultural uses, which cumulatively contribute to the groundwater quality found in the lower water bearing unit.

A final cover with drainage controls would be installed that would route run-on across the site rapidly and minimize infiltration of that run-on during conveyance. In addition, a liquid collection system at the toe of the landfilled waste is planned. Natural drainage of shallow groundwater from the saturated waste would continue until a steady state of equilibrium is reached. The majority of the recharge source for the groundwater within the burn dump ash and the auto shredder waste would be removed by implementation of the closure plan.

Liquid that may contain organic and non-organic constituents would be collected behind a toe buttress and treated/disposed of under guidelines developed in the RAW. A liquid collection system consisting of a highly permeable cutoff trench would be installed as part of the toe buttress. The system would be designed to drain a sump, which would be pumped periodically to remove the collected water. Periodic operational monitoring of water quality would be used to determine the concentrations of organic and non-organic constituents in the collected liquid. Thus, with the proposed design parameters there would be a less than significant impact to ground water quality.

I. Would the project result in a substantial reduction in the amount of groundwater otherwise available for public water supplies?

Less than Significant Impact

As stated in the environmental setting for groundwater, the principal water-bearing aquifer of the Otay Formation is approximately 425 feet bgs. Department of Water Resources water well information in the general vicinity of the project indicates that the majority of listed wells are deep-irrigation wells, pumping from water bearing strata at depths greater than 500 feet below ground surface. As noted in item G above, the upper water-bearing units of the Otay Formation are separated from the landfilled waste by a claystone layer. Thus, while the majority of the recharge source for the water within landfilled wastes would be removed by implementation of the proposed closure plan, this reduction in recharge is not considered significant in terms of the amount of groundwater available for public water supplies.

3.6 AIR QUALITY

Environmental Setting

The following characterization of the baseline atmospheric environment includes an evaluation of the ambient air quality and applicable rules, regulations, and standards for the area. Because the proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air, it falls under the ambient air quality standards promulgated on the local, state, and federal levels.

Climatalogical Environment

The Cactus Road Site is situated within the San Diego Air Basin (SDAB). The climate in the project area is dominated by the strength and position of the semi-permanent high pressure center over the Pacific Ocean near Hawaii. This high pressure center creates cool summers, mild winters, infrequent rainfall, and drives the cool, daytime breezes, maintaining comfortable humidities and ample sunshine. Basin temperatures average 62°F (16.7°C) with summer temperatures from 60 to 75°F (15.6 to 23.9°C) through August and September, and winter temperatures from 45 to 60°F (7.2 to 15.6°C) generally occurring in January.

Unfortunately, the same atmospheric processes that create a desirable living climate combine to restrict the dispersion of air pollution. The influence of this semi-permanent high pressure system results in strong high-altitude temperature inversions associated with warm descending air. This type of inversion occurs especially during the summer and fall. Weak ground-based radiation inversions, caused by surface cooling, are most frequent during winter months.

Wind patterns across the region are characterized by westerly onshore winds during the day and occasional easterly breezes at night as a result of cold air drainage. Wind speed is somewhat greater during the dry summer months than during the rainy winter season. Typically, the onshore light-to-moderate winds average 5.5 knots at the Naval Air Station, North Island, while Lindbergh Field has an average wind velocity of 6.6 knots. The onshore flow is less persistent in the winter when occasional hot, dry Santa Ana winds blow from the east with great force. High temperatures are often accompanied by very low relative humidity (often less than 20 percent).

The project area is located approximately 8.5 miles inland from the Pacific Ocean. This inland location tempers the sea breezes and, to some extent, hinders the dispersion of pollution sources. On the whole, air quality in the SDAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

Regulatory Environment

The California Air Resources Board (CARB) oversees activities of local air quality management agencies and is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval. CARB maintains air quality monitoring stations throughout the State in conjunction with local Air Pollution Control Districts. Data collected at these stations are used by the CARB to classify air basins as "attainment" or "non-attainment" with respect to each pollutant and to monitor progress in attaining air quality standards.

Project site pollutant concentrations are best represented by the Otay Mesa monitoring station located proximate to the project's location. Table 3.6-1 summarizes the composite of gaseous pollutants monitored at this station from 1999 through 2003.

Note that in accordance with the table, ambient levels of monitored air pollutants have remained fairly constant over the past 5 years with no clear-cut trends ascertainable.

The San Diego Air Pollution Control District (SDAPCD) and San Diego Association of Governments are responsible for formulating and implementing the Regional Air Quality Strategy (RAQS) for the Basin. The RAQS includes those measures necessary to ensure compatibility with the SIP. RAQS were adopted for the Basin in 1992. The current 2001 RAQS was adopted on August 8, 2001

The SDAPCD reports that the federal ozone standard has been fully attained and the District is awaiting federal reclassification. However, the project site is in an area that is currently designated as non-attainment for the state standards for ozone and PM_{10}. The District is unclassified for attainment of the federal PM_{10} standards (SDAPCD website 2001). The data show that the area is sensitive to the particulates and pollutants which are precursors to ozone (i.e., nitrogen oxides and reactive organic hydrocarbons).

<u>Thresholds of Significance</u>

For the purposes of this analysis, a project may have a significant adverse environmental impact on air quality if it results in any of the following:

- a violation of any ambient air quality standard;
- a significant contribution to an existing or projected air quality violation;
- exposure of sensitive receptors to substantial pollutant concentrations;
- alter air movements, moisture, temperature, or cause a change in climate; or
- creation of objectionable odors.

The project is located in the San Diego area and is subject to the rules and regulations imposed by the SDAPCD. However, the SDAPCD reports to the CARB and all emissions are also governed by the California Ambient Air Quality Standards, as well as the National Ambient Air Quality Standards (NAAQS).

Table 3.6-1
Air Quality Monitoring Summary for the Otay Mesa Air Monitoring Station
(Number of Days Standards were Exceeded or Maximum Levels During Such Violations)

Pollutant/Standard	1999	2000	2001	2002	2003
Ozone					
State 1-Hour ≥ 0.09 ppm	1	2	0	2	1
Federal 1-Hour > 0.12 ppm	0	0	0	0	0
Federal 8-Hour > 0.08 ppm	0	0	0	1	0
Max. 1-Hour Conc. (ppm)	0.10	0.08	0.09	0.11	0.10
Max. 8-Hour Conc. (ppm)	0.077	0.060	0.074	0.087	0.076
Carbon Monoxide					
State 1-Hour > 20 ppm	0	0	0	0	0
State 8-Hour > 9.1 ppm	0	0	0	0	0
Max 1-Hour Conc. (ppm)	9.0	8.8	6.2	8.4	7.0
Max. 8-Hour Conc. (ppm)	4.9	5.9	3.9	4.7	4.9
Nitrogen Dioxide					
State 1-Hour ≥ 0.25 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.23	0.20	0.21	0.21	0.20
Inhalable Particulates (PM_{10})					
Annual Arithmetic Average (μg/m^3)	52	46	49	55	53
Exceeds State Annual Arithmetic Mean (20 μg/m^3)	Yes	Yes	Yes	Yes	Yes
Exceeds Federal Annual Arithmetic Mean (50 μg/m^3)	Yes	No	No	Yes	Yes
Max 24 Hour Conc. (μg/m^3)	121	139	107	130	130
Exceeds State 24-Hour > 50 μg/m^3)	Yes	Yes	Yes	Yes	Yes
Exceeds Federal 24-Hour > 150 μg/m^3)[1]	No	No	No	No	No
Annual Average (μg/m^3)[1]	15.1	13.1	15.5	13.9	14.3
Exceeds State Annual Average (12 μg/m^3)	Yes	Yes	Yes	Yes	Yes
Exceeds Federal Annual Average (15 μg/m^3)	Yes	No	Yes	No	No
Max 24 Hour Conc. (μg/m^3)	47.1	40.5	41.0	41.0	239[2] (41)
Exceeds Federal 24-Hour > 65 μg/m^3)	No	No	No	No	Yes[2] (No)

[1] As measured at the Chula Vista Monitoring Station
[2] With and without wildfires, respectively. In October 2003, wildfires caused unusually high levels of particulate matter.

The Clean Air Act Amendment of 1971 established the NAAQS with states retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above the minimum standards before adverse effects are observed.

Because California already had standards in existence before federal NAAQS were established, and because of differences of opinion by medical panels established by CARB and the EPA on pollutant levels, there is considerable diversity between state and federal standards currently in effect in California as shown in Table 3.6-2. Note that where state standards duplicate federal standards, the state standards are more stringent in all cases.

Table 3.6-2
California and Federal Ambient Air Quality Standards

Air Pollutant	California Concentration	Federal	
		Primary (>)	Secondary (>)
Ozone	0.09 ppm, 1-hr. avg. >	0.08 ppm, 8-hr. avg. 0.12 ppm, 1-hr. avg.	0.08 ppm, 8-hr. avg. 0.12 ppm, 1-hr. avg.
Carbon Monoxide	9 ppm, 8-hr. avg. >[a] 20 ppm, 1-hr. avg. >	9 ppm, 8-hr. avg.[b] 35 ppm, 1-hr. avg. >	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg. >
Nitrogen Dioxide	0.25 ppm, 1-hr. avg. >[c]	0.053 ppm, annual avg.[d]	0.053 ppm, annual avg.[e]
Sulfur Dioxide	0.05 ppm, 24-hr. avg.≥with ozone ≥ 0.10 ppm, 1-hr. avg. or TSP ≥ 100 µg/m^3, 24-hr. avg.0.25 ppm, 1-hr. avg.>[e]	0.03 ppm, annual avg. 0.14 ppm, 24-hr. avg.	0.50 ppm, 3-hr. avg.
Suspended Particulate Matter (PM_{10})	30 µg/m^3, annual geometric mean> 50 µg/m^3, 24-hr. avg. >[f]	50 µg/m^3, annual[g] arithmetic mean 150 µg/m^3, 24-hr. avg.	50 µg/m^3, annual[g] arithmetic mean 150 µg/m^3, 24-hr. avg.
Suspended Particulate Matter ($PM_{2.5}$)	No Standard	15 µg/m^3, annual[g] arithmetic mean 65 µg/m^3, 24-hr. avg.	15 µg/m^3, annual[g] arithmetic mean 65 µg/m^3, 24-hr. avg.
Sulfates	25 µg/m^3, 24-hr. avg. ≥	No Standard	No Standard
Lead	1.5 µg/m^3, 30-day avg. ≥	1.5 µg/m^3, calendar quarter	1.5 µg/m^3, calendar quarter
Hydrogen Sulfide	0.03 ppm, 1-hr. avg. ≥	No Standard	No Standard
Vinyl Chloride	0.010 ppm, 24-hr. avg. ≥	No Standard	No Standard
Visibility Reducing Particles	In sufficient amount to reduce the visual range to less than 10 miles at relative humidity less than 70%, 8-hr. avg. (9am-5pm)[h]	No Standard	No Standard

a. Effective December 15, 1982. The standards were previously 10 ppm, 12-hour average and 40 ppm, 1-hour average.
b. Effective September 13, 1985, standard changed from > 10 mg/m^3 (≥ 9.3 ppm) to > 9ppm (≥ 9.5 ppm).
c. Effective March 9, 1987, standard changed from ≥ .25 ppm to > .25 ppm.
d. Effective July 1, 1985, standard changed from > 100 µg/m^3 (> .0532 ppm) to > .053ppm (> .0534 ppm).
e. Effective October 5, 1984. The standard was previously .5 ppm, 1-hour average.
f. Effective August 19, 1983. The standards were previously 60 µg/m^3 TSP, annual geometric mean, and 100 µg/m^3. TSP, 24-hour average.
g. Effective July 1, 1987. The standards were previously: Primary- Annual geometric mean TSP > 75 µg/m^3, and a 24-hour average TSP > 260 µg/m^3. Secondary- Annual geometric mean TSP > 60 µg/m^3, and a 24-hour average TSP > 150 µg/m^3.
h. Effective October 18, 1989. The standard was previously "In sufficient amount to reduce the prevailing visibility to less than 10 miles at relative humidity less than 70%, 1 observation," and was based on human observation rather than instrumental measurement.

The SDAPCD currently has no environmental threshold guidelines and all environmental reports are assessed by the state. Thus, in accordance with CARB methodology, the criteria as set by the SDAPCD as New Source Review guidelines as included in the SDAPCD Rule 20.3 were used as guidelines for the environmental impact assessment. The criteria are set at 550 pounds per day of CO and 250 pounds per day each for NO_X and SO_X, and 100 pounds per day for PM_{10}. While the Rule does not included limitations on ROG, a similar level as NO_X is assumed as both pollutants are ozone precursors.

With respect to the proposed project, mobile sources of construction equipment (i.e., equipment where the engine is used for propulsion) are not subject to permit requirements. Stationary sources, such as portable generators and abrasive blasting equipment, etc., are subject to SDAPCD perms, which are obtained by the contractor performing the work.

Environmental Assessment

A. Would the project violate any air quality standards or contribute to an existing or projected air quality violation?

Less than Significant Impact with Mitigation Incorporated

Air quality emissions associated with the project would include activities associated with construction during closure. Construction activities would include the operation of onsite heavy equipment, which would produce exhaust emissions, and haul trips and employee commutes, which would produce exhaust emissions spread over the paths of travel. Potential impacts are also associated with the release of dust due to grading activities and vehicle movement.

Gaseous Emissions

A listing of proposed heavy equipment for use on the project site is included in Table 3.6-3. Additionally, as many as 50 workers are projected on a daily basis for the site. Note that although the actual number of workers could be less than this value, additional trips are associated with site inspections, lunch trucks, etc. As a reasonable worst-case scenario, construction is expected to occur for no more than 8 hours per day. Projected equipment and its emissions are included in Table 3.6-3 (detailed construction emission calculations for construction are provided in Appendix II). Note that because soil will subsequently be used onsite for cover material, any removed vegetation would be landfilled offsite. In addition to the use of heavy equipment, haul trucks are associated with the delivery of import clay, rip-rap, and sand. In all, 690 truck trips are projected over the closure period of up to 18 weeks for the project site. Based on a worst-case scenario of 18 weeks, these 690 truck trips average out to about 8 per day with a maximum of 14 daily trips. Most of these trucks are estimated to be local hauls with a round-trip distance of about 10 miles. Emissions for these trucks are also included in Table 3.6-3. The emissions calculations are based on an average of 14 truck trips to the site per day over a period of 10 weeks, which equates to an average of 8 truck trips per day over an 18-week construction period. In accordance with the projected emissions, no significant impacts will occur as no criterion will be exceeded.

Table 3.6-3
Construction Emissions for Site Closure[1]

Equipment Type and Number	% Utilization	CO (lb/day)	NO_x (lb/day)	ROG (lb/day)	SO_x (lb/day)	PM_{10} (lb/day)
Sesi Site						
Scraper (3)	70	21.0	64.5	4.5	7.7	6.9
Motor grader (1)	100	1.2	5.7	0.3	0.7	0.5
Dozer (1)	30	1.4	4.6	0.6	0.4	0.4
Roller (1)	50	1.2	3.5	0.3	0.3	0.2
Excavator (1)	20	1.5	3.4	0.1	0.3	0.2
Water Truck (1)	100	2.9	6.3	1.8	0.7	0.6
Worker Commutes[2]		17.5	1.9	1.7	0.0	0.1
Haul Trucks[3]		4.3	3.2	0.6	0.0	0.1
Daily Site Total		**51.0**	**93.1**	**9.9**	**10.1**	**9.0**
Daily Threshold		550	250	250	250	100
Exceeds Threshold?		No	No	No	No	No

[1] Based on Tables A9-8-A, A9-8-B, A9-8-C, and A9-8-D of the SCAQMD Air Quality Handbook, April 1993.
[2] Number of workers are as presented in the text. Based on BURDEN2002 year 2004 emission factors for light duty trucks and each worker traveling 20 miles round trip.
[3] Number of trucks are as presented in the text. Based on BURDEN2002 year 2004 emission factors for medium heavy-duty trucks and each truck traveling 10 miles round trip.

Fugitive Dust Emissions

Fugitive dust is defined as the discharge of particulate matter into the atmosphere from a non-point source. It is generated either by mechanical disturbance of the soil (associated with human activities such as grading operations or agricultural tilling) or by wind-related entrainment of dust particles.

The actual quantity of fugitive dust emissions generated is governed by the type and amount of work being done, the soil type and moisture, and the prevailing wind conditions. Site preparation, clearing, grading, excavation, and heavy equipment/truck use on unpaved surfaces could create large quantities of dust during the initial site preparation process. These emissions are inferred from the URBEMIS2002 emissions model distributed by the SCAQMD. The model notes that under worst case conditions, each acre graded generates as much as 38.2 pound per day of PM_{10}. The URBEMIS model also notes that active site watering three time a day will reduce this value by 50 percent. Allowing for the 9.0 pounds per day of PM_{10} attributed to gaseous emissions, a significant impact would be projected if daily construction exceeds an area of about 4.8 acres. Thus, in order to mitigate a significant fugitive dust emissions impact the following air quality mitigation measures (AQ) are required:

Mitigation Measures:

AQ-1: All clearing, grading, earth moving, or extraction activities shall be restricted to an area of no more than 4.8 acres at any one time.

AQ-2: Watering using a water truck shall occur at least three times daily or more as needed during clearing, grading and earth moving activities to prevent fugitive dust.

AQ-3: All clearing, grading, earth moving activities shall cease during periods of high winds to prevent excessive amounts of fugitive dust. High wind events shall be defined as winds of such velocity as to cause fugitive dust from within the project boundary to be blown outside the Sesi Property boundary.

AQ-4: Onsite vehicle speeds shall not exceed 15 miles per hour.

AQ-5: Streets shall be swept at the end of the day if visible soil material is carried over, onto adjacent roads.

AQ-6: The project construction contractor shall monitor the wind speed and visually monitor for fugitive dust for the duration of construction activities.

AQ-7: Prior to initiating construction activities, the project construction contractor shall stabilize and maintain the roadway surfaces at site entrances to ensure construction traffic does not create fugitive dust.

Post Closure Maintenance

After construction is completed, operations include only a modicum of post-closure maintenance. Most monitoring wells, already located onsite, will be retained. With the exception of two wells to be removed, existing wells will be modified during the closure activities to allow continued use for monitoring. Well monitoring will be performed as per applicable regulations and only a minimal number of vehicle trips will be necessary on a regular (quarterly) basis. Emissions generated from these vehicle trips will be well below the criteria levels and no significant impacts will be produced. Furthermore, the possibility of fugitive dust during high wind episodes will be reduced as a result of the cap installed and site vegetation during the closure construction resulting in a beneficial impact.

B. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact

Some people (receptors) are more likely to be affected by air pollution emissions, and as such, are considered to be "sensitive." These "sensitive receptors" include children, the elderly, persons with pre-existing respiratory and/or cardiovascular illnesses, and athletes and others who engage in frequent exercise. Because these groups of people are sensitive to air pollution, their environment is given special consideration. Thus, the environments of "sensitive receptors," including residences, schools, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields, are also defined as "sensitive receptors."

Local land uses proximate to the project area include a mixture of commercial, industrial, agricultural, and to a very limited extent, residential. The potential for exposure to substantial pollutant concentrations is primarily from CO as it does not readily dissipate in the atmosphere. While construction activities would involve the local use of some heavy equipment, as well as a limited number of trucks, the local area is already influenced by local truck traffic.

December 1998 traffic counts for Cactus Road between Otay Mesa Road and Camino Maquiladora, just north of the project site entrance, included 2,200 northbound and 2,500 southbound vehicle trips. Counts on Cactus Road between Airway Road, the nearest cross-street south of the project entrance, and Siempre Viva Road noted 2,000 northbound and 1,600 southbound vehicle trips (Personal Communication, Sandy Rehmann, Assistant Traffic Engineer, City of San Diego Traffic Engineering Division, April 11, 2002). Traffic counts were not available for the current year, but are expected to be similar to the 2000 forecast for Cactus Road south of Otay Mesa Road, north of the project entrance, for the year 2000. This volume included 4,903 ADT. The counts have not been updated since December 2000 (Personal Communication, David Naf, Traffic Engineer, City of San Diego Traffic Engineering Division, December 10, 2003).

The projected volume of traffic associated with landfill closure in combination with the onsite use of heavy equipment represents only a very small fraction of the number of trucks that frequent the area and will not add substantially to local CO concentrations. Furthermore, truck trips associated with the landfill occur throughout the working day and their contribution to peak hour traffic, typically associated with excess CO concentrations, is minimal.

Fugitive dust will also be generated from closure activities. In addition to the proposed site watering, compliance with the measures stipulated above for construction dust impacts would reduce any potential impacts to a level that is less than significant. With the incorporation of an impervious cap, post-closure dust impacts will be reduced from current levels.

C. Would the project alter air movements, moisture, temperature, or cause any change in climate?

Not Applicable

The project entails placing an impervious cap on a landfill and will not significantly raise the existing site contours and therefore, will not alter air movement nor cause climatic variation either locally or regionally.

D. Would the project create objectionable odors?

Not Applicable

The inorganic nature of the landfilled waste (burn ash and auto shredder waste) is such that it precludes significant gas generation from the waste materials. Based on available data collected during various site investigations, no organic trash or garbage has been encountered at the project site. As the site will be capped and revegetated, there would be no odors created. No odor impacts will be associated with the project.

3.7 TRANSPORTATION/CIRCULATION

Environmental Setting

The project site is accessed from the Interstate 5 south, exiting Otay Mesa Road east, then taking Cactus Road south. The roadways that serve the project site include Otay Mesa Road and Cactus Road. According to the City of San Diego Traffic Engineering Division, year 2000 traffic counts for project roadways are as follows:

- Otay Mesa Road is an east-west arterial roadway located north of the project site. Traffic counts for Otay Mesa Road west of Heritage Road taken December 2000 show 29,570 eastbound and 25,690 westbound vehicle trips. East of Heritage Road, Otay Mesa Road traffic counts taken December 2000 show 26,490 eastbound and 27,050 westbound vehicle trips for a total of 53,540 average daily trips (ADT). (Personal Communication, Sandy Rehmann, Assistant Traffic Engineer, City of San Diego Traffic Engineering Division, April 11, 2002). The counts have not been updated since December 2000 (Personal Communication, David Naf, Traffic Engineer, City of San Diego Traffic Engineering Division, December 10, 2003).

- Cactus Road runs north-south and is located along the eastern boundary of the project site. Cactus Road is currently a 20-foot-wide asphalt road within an existing 40-foot easement supporting two-way traffic, one lane in each direction. December 1998 traffic counts for Cactus Road between Otay Mesa Road and Camino Maquiladora, just north of the project site entrance, were 2,200 northbound and 2,500 southbound vehicle trips. Counts on Cactus Road between Airway Road, nearest cross-street south of the project entrance, and Siempre Viva Road from December 1998 were 2,000 northbound and 1,600 southbound vehicle trips (Personal Communication, Sandy Rehmann, Assistant Traffic Engineer, City of San Diego Traffic Engineering Division, April 11, 2002). Traffic counts were not available for the current year, but are expected to be similar to the 2000 forecast for Cactus Road south of Otay Mesa Road, north of the project entrance, for the year 2000 was 4,903 ADT. The counts have not been updated since December 2000 (Personal Communication, David Naf, Traffic Engineer, City of San Diego Traffic Engineering Division, December 10, 2003).

Cactus Road is designated as a 4-lane collector road in the City of San Diego's Adopted Circulation Plan (City of San Diego 1999). Under this designation, Cactus Road would be widened and improved in accordance with the Adopted Circulation Plan as future development of properties along Cactus Road may occur in accordance with the Otay Mesa Community Plan, which is currently in the process of being updated (City of San Diego website, www.sandiego.gov 2003). The update is expected to be completed by early 2005 (Personal Communication, Max Stalheim, Senior Planner, City of San Diego, December 11, 2003). The City plans to incorporate a 26-foot wide right of way beyond the current easement on the west side of Cactus Road. The paved section west of the centerline will be 26-feet wide with curb and gutter improvements. The widening is shown on Figure 2-4, SR 905 Boundary.

State Route 905 (SR-905) is proposed to be extended from the Interstate 805 (I-805), west of the Sesi Property to the Otay Mesa International Border Crossing east of the site. A separate portion of the that project, an interchange, is under construction between existing SR-905 and Siempre Viva Road near the Otay Mesa Port of Entry to Mexico, located a few miles east of the Sesi site. The southern edge of the proposed SR-905 right of way is planned to be approximately 200 feet north of the site (see Figure 2-4).

A Draft EIR/EIS (SCH #95031031), prepared by Caltrans and Federal Highway Administration for the project was circulated in August 2001. The Notice of Determination for the Final EIR/EIS was was filed in September 2004. No date for construction has been set. (Personal Communication, Chuck Davis, Caltrans, July 6, 2004; www.interstate-guide.com/I-905-ca.html 2003).

Threshold of Significance

For the purposes of this analysis, a project will have a significant adverse impact on traffic and circulation if it causes an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system.

Environmental Assessment

A. Would the project result in increased vehicle trips or traffic congestion?

Less than Significant Impact

The only increase in vehicle trips or traffic congestion would occur as a result of construction-related traffic. An average of about 8, with a maximum of 14, truck trips per day for the approximate 18-week duration of the construction is predicted. This daily figure is calculated as follows:

- Over the construction period, 540 trucks will be importing 11,900 tons of clay from the Otay Annex Stockpile located at the Otay Annex Landfill, approximately 5 miles north of the project site, or from another source in the general Otay Mesa area;
- 90 trucks will be importing 2,000 tons of rip-rap rock from a local source;
- 30 trucks will be importing 600 tons of sand from a local source; and
- 30 trucks will be exporting miscellaneous items (e.g., expired appliances, drilling fluids, etc.) from the site to sanitary/hazardous waste landfills.

Remediation activities would occur within the controlled site perimeter fencing. Traffic entering and leaving the site would be monitored and controlled in accordance with a traffic control plan approved by the City of San Diego to ensure safe operations. The increased vehicle trips and traffic congestion would only last for the short duration of the construction (i.e., 18 weeks). Construction traffic is expected to access the Cactus Road from Otay Mesa Road at the north end. The project's anticipated average of 8 vehicles per day is far less than one percent of the recorded 4,903 vehicle trips for the north end of Cactus Road (i.e., between Otay mesa Road and Camino Maquiladora). Since the traffic generated by the project would be temporary and represents a small percentage of the overall traffic on the access routes, traffic impacts as a result of the project would be less than significant.

B. Would the project result in hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Not Applicable

The proposed site would have primary access from the existing roads, Cactus Road and Otay Mesa Road. No new roadways are proposed as part of the project. As the roadways in the area already serve heavy trucks and equipment, there will be no project-specific traffic hazards associated with the project. No impacts would result.

C. Would the project result in inadequate emergency access or access to nearby uses?

Not Applicable

Construction activities would be limited to the project site and would not result in obstructions of roadways surrounding the site. Thus, no closure of roadways or inadequate emergency access to the surrounding area is expected as a result of the project. The project site does not serve as an emergency access route. Thus, the proposed closure would have no impact on emergency access.

D. Would the project result in insufficient parking capacity onsite or offsite?

Not Applicable

The existing landfill does not require parking onsite or offsite. The proposed closure also would not require parking onsite or offsite except for construction personnel and equipment. Construction staging is proposed on the northern portion of the project site. There is sufficient area for construction personnel vehicles, as well as heavy equipment. For post-construction the only vehicles on and off the site will be from engineers performing monitoring and maintenance, and parking would be accommodated onsite. There would be no parking capacity impacts associated with the project.

E. Would the project result in hazards or barriers for pedestrians or bicyclists?

Not Applicable

The rural and industrial character of the immediate area minimizes the number of persons walking or bicycling on Cactus Road. This is due to the narrow roadway width, the lack of sidewalks or bikeways, and the existing traffic volume on Cactus Road, which includes a large percentage of heavy trucks. These existing conditions present an unsafe environment for pedestrians or bicyclists. It is not expected that the project traffic would add to existing hazards to pedestrian or bicyclists beyond the present conditions. No impacts would result. The proposed Cactus Road and SR-905 improvements would occur after the completion of the Sesi Project.

F. Would the project result in conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Not Applicable

The landfill closure would involve vehicles associated with a construction period that is short in duration. No long-term traffic would be added to the regional transportation system. Therefore, the project would not conflict with alternative transportation planning or policies. The proposed Cactus Road and SR-905 improvements would occur after the completion of the Sesi Project. The landfill closure would not conflict with these other improvements.

G. Would the project result in rail, waterborne, or air traffic impacts?

Not Applicable

No impacts on air, rail, or waterborne transportation systems would occur as a result of the proposed project. The project would not require the use of existing, or demand for new rail, waterborne, or air transport.

3.8 BIOLOGICAL RESOURCES

Environmental Setting

Reconnaissance-level biological resources surveys were conducted by Chambers Group, Inc., at the Sesi property in July 1997, March and September 2002, and November 2003 to document the current biological diversity, to identify and map the vegetation communities, and to assess the habitat for its potential to support native plant and wildlife species. The surveys and this report were prepared in accordance with the City of San Diego, Guidelines for Conducting Biology Surveys (2002). Focused surveys for the Quino checkerspot butterfly (*Euphydryas editha quino*), San Diego fairy shrimp (*Branchinecta sandiegoensis*), and Riverside fairy shrimp (*Streptocephalus woottoni*) were conducted in March and April of 2002, and July and September of 2003, respectively, and a delineation of jurisdictional waters was conducted on April 8 and September 9, 2002. Wet season surveys for the San Diego and Riverside fairy shrimp were conducted from January through March 2004. Focused surveys for listed/sensitive plants, coastal California gnatcatcher (*Polioptila californica californica*), Quino checkerspot butterfly, and least Bell's vireo (*Vireo bellii pusillus*) were conducted in 2004. The full Biological Report is in Appendix III, in Volume 2.

The surveys mapped vegetation communities onsite, recorded all flora and fauna detected, and evaluated the potential for the presence of sensitive species to inhabit the project site. Seven vegetation communities were mapped: three were non-native (tamarisk scrub, non-native grassland, and ruderal), and four were native communities (maritime succulent scrub, Diegan coastal sage scrub, *Atriplex canescens*-dominated scrub, and southern willow scrub). The majority of the property consists of disturbed areas with ruderal and now consists of bare ground with sparse vegetation. Faunal species recorded include invertebrates, herpetofauna, birds, and mammals. The jurisdictional delineation

identified the presence of CDFG defined wetlands, City of San Diego defined wetlands, and ACOE jurisdiction within the landfill and within the Sesi property. A total of eleven road ruts and other water-holding depressions formed by landfill settlement, also occur in the project landfill area.

Jurisdictional Waters

The project site contains one named drainage (Spring Canyon) and two unnamed ephemeral drainages (Drainages A and B). Spring Canyon courses from northeast to southwest within the center of the property. Drainage A courses from northwest to southeast and is tributary to Spring Canyon. Drainage B courses from southeast to northwest and is tributary to Spring Canyon (see Figure 3 of Biological Report). The complete delineation report is provided in Appendix B of the Biological Report (Appendix III).

The project site contains approximately 0.31 acre of ACOE jurisdictional waters, of which 0.20 acre is wetland. The project, as currently proposed, would affect approximately 0.04 acre of ACOE jurisdiction, none of which are ACOE-defined wetlands, Table 3.8-1.

Much of CDFG/City of San Diego jurisdiction overlaps with ACOE jurisdiction. Therefore, much of the following description is similar to ACOE jurisdiction described above. City-defined wetlands include riparian vegetation subject to CDFG jurisdiction, as depicted in Figure 3 of the Biological Report. The project site contains approximately 1.30 acres of CDFG jurisdiction; 1.23 acres of this area consists of riparian vegetation. The project, as currently proposed, would affect approximately 0.41 acre of riparian vegetation; approximately 0.07 acre of this area consists of exotic vegetation (i.e., tamarisk), Table 3.8-2.

Table 3.8-1
ACOE Jurisdiction

Drainage Name	Other Waters of the United States (Acres)	Wetlands (Acres)	Total ACOE Jurisdiction (Acres)	ACOE Jurisdiction Affected (Acres)
Drainage A	0.04	0.0	0.04	0.0
Drainage B	0.03	0.0	0.03	0.0
Spring Canyon	0.04	0.20	0.24	0.04
Total	**0.11**	**0.20**	**0.31**	**0.04**

Table 3.8-2
CDFG Jurisdiction

Drainage Name	Unvegetated Channel (Acres)	Riparian Vegetation/City of San Diego Jurisdictional (Acres)	Total CDFG Jurisdiction (Acres)	CDFG/City of San Diego Jurisdiction Affected (Acres)
Drainage A	0.04	0	0.04	0
Drainage B	0.03	0	0.03	0
Spring Canyon	0	1.23	1.23	0.41*
Total	**0.07**	**1.23**	**1.30**	**0.41***
***0.09 acre is comprised of exotic vegetation (i.e., tamarisk)**				

Flora

A total of seven plant communities were identified during the surveys. The majority of the project site is mechanically disturbed and is dominated by weedy ruderal species. Diegan coastal sage scrub and

maritime succulent scrub occur on the slopes surrounding Spring Canyon and the two side drainages. A non-native grassland is present on the slope of Spring Canyon. Southern willow scrub occurs at the northeast end of Spring Canyon and disturbed riparian scrub consisting of a tamarisk infestation (approximately 0.8 acre) is present in the western portion of Spring Canyon. *Atriplex canescens*-dominated scrub is present at the confluence of Spring Canyon and its northern side drainage. Evidence of fire was noted on the slope south of Spring Canyon in the ruderal area heavily dominated by fennel (*Foeniculum vulgare*). Table 3.8-3 lists the vegetation communities and the acreage of each that occur within the project site.

Table 3.8-3
Vegetation Communities Present Within the Project Site

Plant Community	Approximate Acreage
Native Scrub Communities	
Diegan Coastal Sage Scrub	2.0
Maritime Succulent Scrub	2.7
Atriplex canescens-dominated scrub	0.2
Southern Willow Scrub	0.4
Non-Native Communities	
Tamarisk Scrub (Disturbed Riparian Scrub)	0.8
Non-Native Grassland	1.2
Ruderal	26.8
Other	
Developed	1.0
Total	**35.1**

Rare, Threatened, Endangered, Endemic and/or Sensitive Plant Species or MSCP Covered Species

Numerous listed sensitive plant species were identified as having the potential to occur within the project site. San Diego barrel cactus (*Ferocactus viridescens*), a California Native Plant Society (CNPS) List 2 species, was observed on the Sesi property during the reconnaissance and focused wildlife surveys, primarily in the maritime succulent scrub community (Figure 4 of the Biological Report, Appendix III). The greatest density of San Diego barrel cactus was observed along the slopes in the maritime succulent scrub habitat located southeast of Spring Canyon. All locations are outside the limits of the project impact area.

A focused sensitive plant survey was conducted on May 19 and August 12, 2004 by Chambers Group botanists. None of the other listed or sensitive plant species were observed during the surveys. Therefore, these species were determined to be absent from the site.

Fauna

Most species detected during these surveys were indicative of the ruderal and non-native grassland habitat that covers most of the project site.

No amphibians or their sign were observed, although a small amount of suitable habitat exists in the southern willow scrub area in Spring Canyon for species such as the Pacific chorus frog (*Pseudacris regilla*) and western toad (*Bufo boreas*). Reptiles observed onsite included the western fence lizard (*Sceloporus occidentalis*) and side-blotched lizard (*Uta stansburiana*).

Birds observed onsite during the surveys included the California towhee (*Pipilo crissalis*), western kingbird (*Tyrannus verticalis*), bushtit (*Psaltriparus minimus*), greater roadrunner (*Geococcyx californianus*), northern mockingbird (*Mimus polyglottos*), California thrasher (*Toxostoma redivivum*),

house finch (*Carpodacus mexicanus*), common raven (*Corvus corax*), Anna's hummingbird (*Calypte anna*), orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), yellow-breasted chat (*Icteria virens*), yellow warbler (*bendroica petechia brewsteri*), and Cooper's hawk (*accipiter cooperi*).

Mammalian species detected during the surveys included the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), desert cottontail (*Sylvilagus auduboni*), coyote (*Canis latrans*), and domestic dog (*Canis familiaris*).

Rare, Threatened, Endangered, Endemic and/or Sensitive Wildlife Species or MSCP Covered Species

No federal- or state-listed or proposed endangered or threatened species were observed on the project site during the reconnaissance and focused wildlife surveys. Tables 5 and 6 of the Biological Report Appendix III, show all sensitive species found in data searches for the project site, their current status (federal, state, CNPS, or other special status), and their potential for occurrence on the project site.

Fifty-five sensitive animal species were identified in the vicinity of the project site (Table 6 of Biological Report). Many of these sensitive species inhabit coastal scrub or riparian areas, although raptor species forage in grasslands such as those present on the project site. Habitats found on the project site are too disturbed to support most of these species. Focused surveys were conducted for the Quino checkerspot butterfly (2002 and 2004) and San Diego and Riverside fairy shrimp (dry season surveys, 2003; wet season surveys, 2004) coastal California gnatcatcher (2004), and least Bell's vireo (2004).

Of the 55 potentially occurring sensitive species on the project site, 4 have a moderate potential to occur: red diamond rattlesnake (*crotalus ruber ruber*), coastal cactus wren (*camplorhynchus brunneicapillus sandiegoerse*), southern California rufous-crowned sparrow (*aimophila ruficeps canescens*), and southern mule deer (*Odo coileus hemionus fuliginata*). The California horned lark (*Eremophila alpestrisactia*) has a high potential to occur. The San Diego black-tailed jackrabbit, orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), yellow-breasted chat (*Icteria virens*), yellow warbler (*bendroica petechia brewsteri*), and Cooper's hawk (*accipiter cooperi*) were observed onsite during the focused and/or general biological surveys. The Quino checkerspot butterfly, Riverside fairy shrimp, San Diego fairy shrimp, coastal California gnatcatcher, and least Bell's vireo were determined to be absent from the site during focused surveys for each of these species conducted in 2003 and 2004. In addition, special emphasis to look for burrowing owl (*athene cunicularia*) (an easily detectible species) was included during all surveys and site visits, and this species was determined to be absent from the site.

<u>Quino Checkerspot Butterfly</u>

A general habitat assessment for the Quino checkerspot butterfly conducted on March 21, 2002 and March 19, 2004 focused on locating western plantain (*Plantago erecta*), the host plant species for the larvae of the butterfly. Western plantain is present onsite on the south slope of Spring Canyon. The complete Quino Checkerspot Butterfly Survey Reports for 2002 and 2004 are included as Appendix G1 and G2 of the Biological Technical Report. The project site is not located within critical habitat for the Quino checkerspot butterfly. Current (2004) and past (2002) focused surveys for the Quino checkerspot butterfly have not detected this species onsite. Therefore, this species was determined to be absent from the site at this time.

<u>Riverside and San Diego Fairy Shrimp</u>

Riverside and San Diego fairy shrimp are small aquatic crustaceans that occur in vernal pools, pool-like ephemeral ponds, and human-modified depressions from coastal southern California south to northwestern Baja California, Mexico. Female fairy shrimp carry fertilized eggs in a brood sac, and the eggs are either dropped to the pool bottom or remain in the brood sac until the female dies. The "resting" eggs (cysts) are capable of withstanding heat, cold, and prolonged desiccation until the pool refills in the same or subsequent seasons. The cyst bank in the soil may be comprised of cysts from several years of breeding.

An initial fairy shrimp habitat assessment was conducted on July 1, 2003, to map vernal pools, road pools, and other basins with potential to support fairy shrimp. Eleven depressions with the potential to temporarily hold water were identified on the surface of the landfill. Plant species found in some of the depressions include garland daisy (*Chrysanthemum coronarium*), annual beard grass (*Polypogon monspeliensis*), filaree (*Erodium* sp.), Italian ryegrass (*Lolium multiflorum*), Boccone's sandspurrey (*Spergularia bocconii*), and slender-leaved iceplant (*Mesembryanthemum nodiflorum*). One vernal pool indicator species, plantain (*Plantago elongata*), was observed in these six depressions, all located in road ruts or depressions formed over the settling waste. No listed plant species occur within the depressions. Dry season surveys were conducted on September 4, 2003 within the road ruts and other water-holding depressions that were identified during the fairy shrimp habitat assessment. No cysts were observed in any of the eleven seasonal water-holding depressions. A wet season survey was conducted in winter and spring of 2004. No fairy shrimp were observed in the depressions and road pools that held water. Based on the results of the dry season surveys and the wet season surveys, it is unlikely that this species occurs on the project site. The complete 2003/3004 Dry Season and Wet Season Survey Reports are included as Appendix I1 and I2 of the Biological Technical Report.

Coastal California Gnatcatcher

The coastal California gnatcatcher is an obligate resident of southern California coastal sage scrub communities. This species is found near arid hillsides, mesas, and washes. Loss of suitable habitat and fragmentation of habitat from expanding development and agriculture have been major factors in the decline of this species. Limited suitable coastal sage scrub habitat occurs on the project site, and the closest recorded occurrence is approximately 1 mile from the project site. Focused presence/absence surveys for the coastal California gnatcatcher were conducted during the breeding season of 2004 (March 1 to August 15), as required by the U.S. Fish and Wildlife Service (USFWS) protocol for areas within the MSCP. No California gnatcatchers were observed during the focused surveys. The complete year 2004 Coastal California Gnatcatcher Survey Report is included as Appendix J of the Biological Technical Report.

Least Bell's Vireo

The least Bell's vireo is a summer resident of southern California. This vireo's nesting habitat is associated with dense shrubby growth, riparian thickets, and hedgerows. Limited suitable riparian habitat comprised of willow and mule fat occurs on the project site, and the closest recorded occurrence is approximately 5 miles from the site. Focused presence/absence surveys for the least Bell's vireo were conducted during the breeding season of 2004 (March 15 to September 15), in accordance with 2001 USFWS protocol guidelines (USFWS 2001). No least Bell's vireo were observed during the focused surveys. The complete year 2004 Least Bell's Vireo Survey Report is included as Appendix K of the Biological Technical Report.

Thresholds of Significance

There may be a significant impact to biological resources if the project will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Environmental Assessment

A. Would the project result in a substantial effect on a rare or endangered animal or plant species, or the habitat of the species?

Direct Impacts

No Impact to Listed/Sensitive Plant Species

Sensitive or listed plant species do not occur within the limit of disturbance. One sensitive plant species, the barrel cactus, is located within the property limits but outside the area of disturbance; therefore, there are no impacts to this or any other sensitive plant species.

Less than Significant Impact with Mitigation Incorporated to Non-Native Grasslands, Diegan Coastal Sage Scrub, Maritime Succulent Scrub, Southern Willow Scrub and Tamarisk Scrub (Disturbed Riparian Scrub) Habitat

Approximately 0.05 acre of non-native grasslands would be removed by the project. In addition, approximately 0.28 acre of Diegan coastal sage scrub, approximately 0.59 acre of maritime succulent scrub, 0.32 acre of southern willow scrub, and 0.07 acre of tamarisk scrub (disturbed riparian scrub) would be removed by the project. Impacts to these communities would be mitigated to a less than significant level (See Mitigation Measures, BR-1, BR-2, BR-3, BR-4, and BR-7.)

No Impact to Ruderal Habitat

Impacts to ruderal habitat is not considered significant since it does not represent a sensitive community and it is relatively common or exists in a degraded or disturbed state, and is less than valuable habitat. Although the project will result in removal of 7.97 acres of ruderal habitat, the area will be capped and restored to more valuable (native grassland) habitat.

No Impacts to Quino Checkerspot Butterfly, Coastal California Gnatcatcher, Least Bell's Vireo, San Diego Fairy Shrimp, and Riverside Fairy Shrimp

Quino Checkerspot Butterfly

The Quino checkerspot butterfly was not observed during focused surveys for this species conducted in 2002 and 2004; therefore, there are no impacts to this species.

Coastal California Gnatcatcher

The project was designed to minimize impacts to the coastal sage scrub habitat to the greatest extent feasible. Limited suitable habitat occurs on the project site for the gnatcatcher (4.73 acres) and would not be expected to support nesting gnatcatchers. Only 0.87 acre of Diegan coastal sage scrub and maritime succulent scrub would be affected by the proposed project while the majority of scrub habitat (3.86 acres) will be preserved. Coastal California gnatcatchers were not observed onsite during focused presence/absence surveys for this species in 2004; therefore, there are no impacts to this species.

Least Bell's Vireo

The project was designed to minimize impacts to southern willow scrub habitat to the greatest extent feasible. Limited suitable habitat occurs on the project site for vireos (1.23 acres) and would not be expected to support nesting vireos. Only 0.32 acre of southern willow scrub and 0.07 acre of tamarisk scrub (disturbed riparian scrub) would be affected by the proposed project, and the remainder of riparian habitat (0.84 acre) will be preserved. Focused surveys were conducted during the 2004 breeding season for this species. No least Bell's vireos were observed during any of the surveys; therefore, there are no impacts to this species.

Riverside and San Diego Fairy Shrimp

No cysts for these species were found in any of the eleven potential water holding depressions during dry season surveys in 2003. No fairy shrimp were observed in any of the depressions that held water during the winter 2003-2004 wet season surveys. It is therefore determined that this species is absent from these areas that were negative during both the dry and wet season surveys. There are no impacts to these species.

Less than Significant Impact with Mitigation Incorporated to Other Listed and Sensitive Wildlife Species

Five sensitive species, the black-tailed jackrabbit, orange-throated whiptail, yellow-breasted chat, yellow warbler, and Cooper's hawk are known to occur onsite. A number of other sensitive wildlife species have the potential to occur on the project site. However, these species are not provided protection under the Endangered Species Act, and any loss of individuals would not threaten the regional population. In addition, only 9.28 acres of the 35.1-acre project site will be impacted by construction activities, and this will be a temporary loss of habitat. Therefore, removal of their habitat represents an adverse but less than significant impact with mitigation incorporated to regional populations of these species, which may continue to forage in the remaining acres of open space on the project site and in the surrounding areas. In addition, mitigation measures (BR-1, BR-2, BR-3, BR-4, BR-5, BR-6, and BR-7) discussed below would result in increased value of the project site as habitat for these species once restoration is complete.

Indirect Impacts

Less than Significant Impact with Mitigation Incorporated to Vegetation Communities (Including Listed/ Sensitive Plants)

The barrel cactus is not located within the limits of disturbance, but is located within the property limits adjacent to the limit of disturbance. Grading during construction may result in increased amounts of dust being deposited on vegetation adjacent to construction activities. This will occur only during project construction and is not expected to have a long-term negative impact on the vegetation communities. The main source of this impact will be eliminated once grading is complete, but wind may still disperse loose dirt on newly exposed ground. During grading, traditional dust control BMPs will be employed. These BMPs are contained in the Draft Stormwater Pollution Control Plan (SWPPP) prepared by Rick Engineering (2002) for the project. BMPs include minimizing disturbance areas, spraying of water on exposed soil, and limitations on construction during high winds. Bare, exposed ground caused by construction activities will be stabilized by restoration and revegetation activities per the Final Revegetation Plan (Appendix L of Biological Report). Therefore, impacts are considered less than significant with incorporation of Mitigation Measures W-2 through W-7 under Water Quality.

Less than Significant Impact with Mitigation Incorporated to Wildlife

Indirect project-related impacts to wildlife and sensitive wildlife would occur during project construction and would include increased human activity, increased ambient noise, and increased potential for road kill by project-related traffic. These would occur only during project construction and are not expected to result in long-term effects on wildlife. During construction, wildlife species would avoid habitats affected by these impacts and these impacts will cease once construction activities are completed. Therefore, no

significant impacts to common or sensitive wildlife species habitat would result from the proposed project. However, mitigation measures (BR-5, BR-6, BR-7, and BR-8, and measures W-2 through W-7 under Water Quality) will be incorporated into the project to minimize indirect impacts to biological resources.

B. Would the project result in substantial disturbance to environmentally sensitive lands (wetland habitats or habitats locally designated important, such as areas within or habitats protected by the MSCP)?

Less than Significant Impact with Mitigation Incorporated to Land Use

The City's MSCP Subarea Plan contains policies and directives, including compatible activities and land uses, for each MHPA subarea. The MSCP Subarea Plan finds that restoration of land disturbance activities, such as sand and gravel mining operations, is a compatible activity within the MHPA. The project is compatible with the MSCP and with the City's MHPA, as the project consists of closure of an existing landfill and is similar to the scope and goals of quarry restoration. On May 7, 2003, the City met with the wildlife agencies to evaluate the project compatibility with the MSCP and requirements for a boundary line adjustment as a condition of the closure and restoration of the former landfill. These agencies agreed that no boundary line adjustment was required based on the planned construction, restoration and land use proposed by the project.

The project is consistent with the current land use zoning for the site and the general plan, and there is no projected reuse of the project site after the landfill is closed. As an inactive landfill, the project site currently functions as open space. Following closure of the landfill, the project site will remain as open space and there are no planned land uses adjacent to the MHPA such as single and multiple family residences, active recreation, commercial, industrial, agricultural, or extractive uses. In addition, the project would not significantly adversely affect agricultural and other resources in the area and the project would not displace or disrupt any residences or communities. The presence of the landfill will impact land use, in that development on landfill portions of the project site will be restricted by local, state, and federal regulations. The requirement for maintaining the integrity of the final cover, drainage, and monitoring systems will impede traditional development, and will severely restrict the types of structures that can be built over the closed landfill.

To offset impacts to the land during the closure process, the proposed project involves preservation, restoration, and revegetation back to open space and is subject to the Land Use Adjacency Guidelines of the MSCP, which would ensure its compatibility with existing surrounding land uses. The Land Use Adjacency Guidelines require that all new and proposed parking lots and developed areas in and adjacent to the MHPA must treat urban runoff prior to discharging into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment. Although the project does not qualify as any of the above-listed land use categories, closure of the landfill will be in compliance with Land Use Adjacency Guidelines since the primary goal for closure is to control the release of potentially harmful chemicals to the environment. Impacts to land use would be mitigated to a less than significant level. Mitigation Measures BR-1, BR-2, BR-3, and BR-4 apply.

Less than Significant Impact with Mitigation Incorporated to Environmentally Sensitive Lands

The City of San Diego's MHPA boundary overlaps approximately 3.53 acres of the area of disturbance (Figure 4 of Biological Report). Most of this overlap area consists of disturbed ruderal (2.51 acres) and exotic tamarisk (0.07 acre) vegetation that is not environmentally sensitive habitat. The remaining area within the MHPA and project overlap is Diegan coastal sage scrub, maritime succulent scrub, non-native grassland, and southern willow scrub (approximately 0.95 acre). Impacts to these habitat areas would be mitigated to a less than significant level. Mitigation Measure BR-1, BR-2, BR-3, BR-4, and BR-7 apply.

No Impact to ACOE Jurisdiction Wetlands

The project site contains 0.31 acre of ACOE jurisdiction, of which 0.20 are wetlands. The project, as currently proposed, would affect approximately 0.04 acre of ACOE jurisdiction, none of which are ACOE-defined wetlands.

Less than Significant Impact with Mitigation Incorporated to CDFG Jurisdiction/City Wetlands

The Sesi property contains approximately 1.30 acres of CDFG/City jurisdiction, of which 1.23 acre is riparian vegetation. As the landfill extends down into the bottom of Spring Canyon, the final cover construction is required within the CDFG jurisdiction area. Alternative grading scenarios and supporting geotechnical studies were performed to reduce the extent of final cover in the canyon bottom area. The landfill closure design was modified to steepen and pull back the front face of the waste slope, thereby reducing the area of impact within the canyon bottom. The project would affect approximately 0.41 acre of the CDFG/City jurisdictional riparian habitat, 0.07 acre of which is exotic vegetation. Approximately 0.07 acre of this jurisdiction would be temporarily impacted and 0.34 acre would be permanently impacted. The City of San Diego considers impacts to riparian communities greater than 0.01 acre to be significant (City of San Diego 1997). As a result, the project includes measures that would mitigate impacts to onsite riparian habitat, including disturbed riparian habitat with tamarisk scrub, to a less than significant level. Mitigation Measures BR-2 and BR-3 apply.

C. Would the project create a substantial interference with the movement of any resident or migratory fish or wildlife species (i.e., wildlife dispersal or migration corridors)?

Not Applicable

The project area is not known to be part of a migration corridor. It is unlikely that the project will affect wildlife movement due to its location adjacent to severely disturbed and developed areas.

D. Would the project result in the substantial reduction in the habitat for fish, wildlife, or plants?

Less than Significant Impact with Mitigation Incorporated

The project construction will temporarily affect about 1.19 acres of native habitats (maritime succulent scrub, Diegan coastal sage scrub, and southern willow communities) which would be mitigated through revegetation as discussed above in subsection B. The project includes measures that would mitigate impacts to onsite riparian habitat, including disturbed riparian habitat with tamarisk scrub, to a less than significant level. Mitigation Measures BR-2 and BR-3 apply. The project will result in a net increase in habitat for wildlife and plants.

E. Would the project result in impacts to locally designated species (e.g., heritage trees)?

Not Applicable

Due to the site history and disturbed nature of the vegetation, no heritage trees were found to exist onsite. No impacts would result.

Mitigation Measures:

The following mitigation measures will be implemented and will reduce any biological impacts that will result from the landfill closure project to less than significant.

Physical Characteristics

Mitigation for impacts to upland communities (e.g., Diegan coastal sage scrub, maritime succulent scrub, and non-native grasslands) shall include preservation of these communities within the MHPA boundaries on the property. There are more than sufficient acres of each community type on the property and within the MHPA limit to satisfy the required mitigation ratio. The overall 90 percent preservation goal within the City's MHPA can be met.

BR-1: Prior to the release of the grading bond and issuance of the Certification of Completion, the applicant shall provide a covenant of easement or conservation easement to the satisfaction of the City Manager over an area within Spring Canyon and the MHPA for preservation of the

following habitats: 0.28 acre of Diegan Coastal Sage Scrub; 1.08 acres Martimime Succulent Scrub; 0.05 acre non-native grassland; and 0.68 acres of riparian sycamore habitat. Mitigation measures are further outlined in Table 1 of the General Survey Report (Appendix III, Initial Study).

Jurisdictional Waters and Riparian Habitat

This project is expected to require a streambed alteration agreement from the CDFG, a nationwide permit from the ACOE, without notification, and a water quality certification from the RWQCB, subject to conditions and notification requirements.

Approximately 0.41 acre of riparian and disturbed riparian habitat (tamarisk scrub) would be impacted by the project. Of this area, approximately 0.07 acre will be revegetated as willow scrub habitat; approximately 0.34 acre is considered a permanent impact. The following mitigation measures will reduce impacts to less than significant:

BR-2: Creation of 0.34 acre of riparian sycamore habitat in an unvegetated drainage entering Spring Canyon at the north and west end of the property, and revegetation of 0.07 acres of riparian willow scrub habitat at the toe of the created slope, as described in the Revegetation Plan (dated March 2004 and updated by changes in the General survey) in Appendix III-L of the Initial Study. City of San Diego approval is required for any revisions to the Revegetation Plan, including but not limited to: plant palette changes, remedial measures, maintenance requirements, and final approval of the Revegetation Plan pending accomplishment of 5-year success criteria.

BR-3: Enhancement of 0.34 acre of existing riparian habitat located immediately downstream of the project site in Spring Canyon by removing invasive tamarisk. Current disturbed/ruderal areas within the project site will be restored by planting and seeding with native species, thus creating an area of higher biological value and contributing to the functioning of the MHPA. Enhancement will be completed as described in the Revegetation Plan (dated March 2004 and updated by changes in the General survey)in Appendix III-L of the Initial Study.

Botanical Resources-Flora

In addition to mitigation measures BR-1, BR-2, and BR-3, the following mitigation measure shall be implemented to ensure the success of the revegetation, restoration, and enhancement activities.

BR-4: All revegetation areas will be maintained in accordance with the Revegetation Plan in Appendix III-L of the Initial Study. Maintenance and monitoring of all planted areas will be conducted at a minimum of once monthly during the first year and as needed for a period of no less than five years. Maintenance activities shall include weed eradication, maintenance of erosion control devices, maintenance of the irrigation system, trash removal, and replacement of dead or diseased plant materials as directed by the Project Biologist.

Rare, Threatened, Endangered, Endemic, and/or Sensitive Species or MSCP Covered Species

The following mitigation measures shall be implemented to minimize direct and indirect effects of construction activities on these biological resources, to protect sensitive resources, and to ensure that there will be less than significant impacts.

BR-5: Project limits shall be fenced or flagged prior to construction activities to avoid disturbance to preserved areas. When possible, vegetation clearing shall be conducted during the non-breeding season (October 1 through February 14) to limit impacts to nesting birds. If activities occur during the breeding season, a Biological Monitor will be present to prevent disruption of breeding birds that are protected by the Migratory Bird Treaty Act (MBTA). In addition, when construction activities are proposed within 500 feet of sensitive habitat (i.e., coastal sage scrub, southern willow scrub) during the breeding season, preconstruction surveys shall be conducted for all sensitive species potentially affected by increased noise levels caused by construction. If work is performed during the bird breeding season, it shall not be done within 300 feet of any nesting bird

protected by the MBTA unless noise barriers are utilized. In addition, construction activities within the MHPA boundaries will comply with the City Incidental Take Authorization that includes buffer zones of: 300 feet from any nesting site of Cooper's hawk; 900 feet from any nesting sites of northern harriers; 4,000 feet from any nesting sites of golden eagles (*Aquila chrysaetos*); 300 feet from any occupied burrow of burrowing owls. Noise barriers include but are not limited to carpet, hay bales, plastic, and other sound absorbing or deflecting devices that can be installed with minimal impacts.

BR-6: If the biologist finds any nesting avian species within or adjacent to the areas requiring clearing, then the biologist shall delineate the appropriate buffer zone around the area, based on the above criteria. This zone shall be marked with flagging. Construction or clearing shall not be conducted within this buffer zone until the biologist determines that the nest is no longer active. In addition, a qualified biologist shall be present at all preconstruction and pregrade meetings and will be onsite during vegetation removal. A Biological Monitor, as defined by the Revegetation Plan (Appendix III-L of the Initial Study), shall be hired and trained prior to construction to monitor construction activities at the project site where sensitive resources for protection and preservation have been identified. The biological monitor will be an individual familiar with the biology and ecology of southern California, especially sensitive birds.

BR-7: The Biological Monitor shall be present during clearing of habitat. If any listed or sensitive species are found, the Biological Monitor shall stop construction, and the City of San Diego shall be notified immediately. Construction will not resume until the City of San Diego has been contacted and has given direction regarding subsequent actions to be taken. The Biological Monitor has the authority to stop work temporarily in order to search for and remove any sensitive species found within the proposed impact area.

BR-8: All litter, trash, and construction debris shall be properly contained and disposed of at an appropriate site.

3.9 ENERGY AND MINERAL RESOURCES

Environmental Setting

The project site is currently vacant with no associated uses. The only energy use is associated with fuel for the construction equipment and post-construction monitoring and maintenance. No mineral sources are associated with the site.

Threshold of Significance

For the purposes of this analysis, a project will have a significant adverse impact on energy and mineral resources if it encourages activities which result in the use of large amounts of fuel or energy; or the use of fuel or energy in a wasteful manner.

Environmental Assessment

A. Would the project conflict with adopted energy conservation plans?

Not Applicable

Since construction activity is of short duration, and post-construction monitoring is not considered to be intensive (monitoring wells) energy consumer, no impacts on conservation planning would result from project implementation.

B. Would the project use nonrenewable resources in a wasteful and inefficient manner?

Not Applicable

Construction and post-construction monitoring of the project would entail the use of small amounts of fuel and energy consumption. Since construction activity is of short duration, and post-construction monitoring is not considered to be intensive, nonrenewable energy resources would not be used in an inefficient or wasteful manner. No impacts on nonrenewable resources would result.

C. Would the project result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the state?

Not Applicable

No California Department of Conservation mineral land classification maps exist for the project area and the City of San Diego has not designated the site as an extractive land use (mineral resource) area. The project site is not known to contain any valuable mineral resources; therefore, no impacts to known mineral resources would result.

3.10 HAZARDS

Environmental Setting

Wastes deposited at the project site and the adjacent Barnhart and Danzler properties consist of burn dump ash (soil containing approximately 10 to 20 percent waste material) underlain by auto shredder waste (waste from processing and shredding of automobiles). Testing of the ash found samples containing lead, copper and nickel concentrations exceeding Soluble Threshold Limits Concentration. However, studies concluded that the ash posed no significant hazard or risk to humans, livestock or wildlife. After adequate testing and at the request of the parties responsible for the ash at the Barnhart and Danzler properties, on February 28, 1996, the Department of Toxic Substance Control officially reclassified the ash as non-hazardous. Given that the source of the ash at the Barnhart and Dantzler properties is the same as the project site, the ash at the project site is considered non-hazardous. Samples of auto shredder wastes were also taken to determine concentrations of regulated substances. Testing found concentrations of copper and lead. Auto shredder waste, however, is considered a special waste by regulation and can be deposited in a Class III municipal solid waste landfill.

The site has a 6-foot high chain-link fence along portions of its boundaries and is gated for vehicle access at the site entrance on Cactus Road. Due to the proximity of the site to the Mexican border, and the high level of activity involving illegal border crossings, the fence onsite is continually subjected to damage from persons climbing over and vehicles driving through.

Threshold of Significance

For the purposes of this analysis, a project will result in a significant adverse impact if an explosion were to occur, a release of hazardous substances would have a detrimental effect on the population or sensitive resources, interfere with emergency response or evacuation plans, create substantial health hazards, or a fire hazard.

Environmental Assessment

A. Would the project involve a risk of accidental explosion or release of hazardous substances (including but not limited to oil, pesticides, chemicals, or radiation)?

Less than Significant Impact

Based on the risk assessment, as discussed in the RAW (ENV America 2001), copper and lead were determined to be chemicals of concern at the site, which could potentially reach human or ecological receptors through surface soil, air, surface water and groundwater. The proposed remedial action to cap the landfill material would reduce the potential for human health risks and risks to the environment in accordance with all applicable regulations governing remedial actions. It is not expected that the closure construction activity would result in risk of explosion or release of hazardous substances. However, construction activity could result in the exposure of workers or the community to chemicals from direct contact, ingestion or inhalation and indirect contact through contaminated clothing or equipment. A *Worker Health and Safety and Plan* (WHSP) and a *Community Health and Safety Plan* (CHSP) were developed by ENV America and have been included in the RAW. These plans outline risks associated with potential hazards, measures to minimize hazards and emergency response procedures. These plans would reduce potential impacts from the release of hazardous substances during construction to a less than significant level. Also, construction equipment does have the potential to leak gas or oil if such equipment is not properly maintained. Onsite refueling operations, if needed, would occur in accordance with a spill prevention plan as a standard condition of the City for project construction. Any such leakage would require that the contaminated soil be disposed of offsite in the proper manner. Therefore, potential impacts associated with accidental explosion or release of hazardous substances would be less than significant.

B. Would the project result in possible interference with the County of San Diego Operational Area Emergency Plan or the County of San Diego Operational Site Specific Dam Failure Evacuation Data Plans?

Less than Significant Impact

In accordance with requirements of Title 27, California Code of Regulations, Section 21130, a post-closure emergency response plan was prepared as part of the RAW. The project's Emergency Response Plan will provide for occurrences that may exceed the design conditions of the site and endanger public health or the environment. The plan identifies the City of San Diego Fire Department as having the capability to respond to site fire or hazardous materials emergency situations during site closure. Site cleanup actions are not expected to interfere with other response or emergency evacuation plans including the County of San Diego Operational Area Emergency Plan or the County of San Diego Operational Site Specific Dam Failure Evacuation Data Plans (S. Asturias, Duty Officer, County of San Diego Office of Disaster Preparedness, personal communication).

C. Would the project involve the creation of any health hazard or potential health hazard?

Not Applicable

Closure of the site will not create any health hazards or potential health hazards. The proposed project will remove such potential hazards from the public through the site cleanup and capping process. As discussed above in subsection A, the WHSP and CHSP would reduce the potential for the creation of health hazards. Additionally, the Emergency Response Plan, included in the RAW, for the site closure identifies and addresses procedures to be followed to mitigate and control any conditions which could potentially threaten public health or the environment.

D. Would the project expose people to existing sources of potential health hazards?

Not Applicable

As above, closure of the site will be a beneficial impact in that it will remove existing potential health hazards through the site cleanup and capping process. Additionally, access to the Sesi site will be limited by a 6-foot high, chain link fence to provide security for the site and limit public exposure. The fence will be inspected for breaks, settlement damage, and loss in tension. The gates will be inspected to ensure proper working order and that the locks are intact. Any necessary repairs or replacements will be made at the time of the proposed semi-annual site inspections.

E. Would the project result in an increased fire hazard in areas with flammable brush, grass, or trees?

Less than Significant Impact

As part of construction, existing vegetation would be removed and recycled at a green waste facility. As part of the final capping process, the site would be revegetated with native plants. Periodic inspection of the cover would be conducted. As part of this effort, any dead or dying vegetation would be removed and the area revegetated. The project will not increase the potential for fire over that of existing conditions, and potential impacts would be considered less than significant. Arrangement will be made with the Border Patrol to relocate their trespass sensors outside of the construction area, and to agree on methods to control trespassing during revegetation efforts.

3.11 NOISE

Environmental Setting

The project site is comprised of a vacant lot located along the west side of Cactus Road immediately north of Airway Road. The noise environment in the project area is created primarily from two sources; vehicle traffic along Cactus Road and aircraft traffic related to both Brown Field immediately to the north and the International Abelardo L. Rodrigues Airport in Tijuana located approximately 1.25 mile to the south. A lesser amount of noise is attributable to local stationary sources including the Cactus Recycling facility located to the east across Cactus Road.

The project area includes both a mixture of land uses. Included among the properties along the west side of Cactus Road (south from Otay Mesa Road) are Crazy Guys Communications (set back along Camino Maquiladora), Pacific Bell, the Chapel of Good News (which conducts bible studies on Sundays from 10:00 a.m. to 12:00 noon), agricultural lands, the Gateway Truck Parkand other various trucking firms. The east side of Cactus Road south from Otay Mesa Road includes H. Baza Farms (set back along Camino Maquiladora), the Cactus Recycling facility, agricultural uses, and various trucking facilities. These surrounding land uses have not substantially changed from what existed at the time a noise survey was conducted for the proposed closure in 1997.

A field survey was conducted on September 29, 1997, to determine surrounding land uses and ambient noise levels. Because surrounding land uses have not substantially changed since this survey, ambient noise levels are believed to be largely unchanged and a new noise survey was not deemed necessary. Noise monitoring was conducted using a Quest Technologies Model 2900 Type 2 Integrating/logging Sound Level Meter. The unit meets the American National Standards Institute Standard S1.4-1983 for Type 2, International Electrotechnical Commission Standard 651-1979 for Type 2, and International Electrotechnical Commission Standard 651-1979 for Type 2 sound level meters. The unit was field calibrated at 12:15 p.m. using a Quest Technologies QC-10 calibrator immediately prior to the first set of readings. The accuracies of the meter and calibrator are maintained through a program established through the manufacturer and traceable to the National Bureau of Standards. The calibration unit meets the requirements of the American National Standards Institute Standard S1.4-1984 and the International Electrotechnical Commission Standard 942: 1988 for Class 1 equipment.

The field study included a 20-minute noise reading obtained along the east side of Cactus Road immediately across from the site. The meter was situated at a distance of 200 feet north of Airway Road and 50 feet from the centerline of the near (northbound lane) of Cactus Road. Note that Airway Road is only partially paved between Britannia Road to the east and Cactus Road. The reading began at 12:23 p.m. During this 20 minute period 53 automobiles, five medium-weight trucks (including one forklift), and 23 heavy-weight trucks were observed on Cactus Road. Also included in the measurement were four jet aircraft take-offs at the international airport, two light aircraft over-flights, and sawing noises from one of the commercial land uses. The meter recorded a time-weighted average equivalent noise level (L_{eq}) of 63.9 dBA. The 1 second minimum and maximum recorded values were 40.4 and 77.7 dBA, respectively.

Thresholds of Significance

For the purposes of this analysis, a project will have a significant impact on the environment if it results in a substantial increase in the ambient noise levels for adjoining sensitive areas. Sensitive areas are typically considered to include residential land uses, health care and hospital facilities, educational facilities and libraries, places of worship, and open space lands, on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Within the project area, only the residential uses and Chapel of Good News are considered as sensitive.

An increase in noise levels of 3 dBA is considered as the minimum increase that is perceptible among individuals. Changes of less than 3 dBA may be perceptible in a quiet, controlled environment but is not readily discernible outdoors where ambient noise is continually changing. A 5 dBA increase is generally considered as perceptible by most people while an increase of 10 dBA is perceived as a doubling of the sound. Note that CEQA specifies that an impact may be significant if the project results in a *substantial* increase in the ambient noise and not a *perceptible* change. For this reason a 5 dBA change in ambient noise levels is considered the threshold of significance. Additionally, the California Department of Health Services (DHS) Office of Noise Control has studied the correlation of noise levels and their effects on various land uses. As a result, the DHS has established an ambient level of 65 dBA community noise equivalent level (CNEL) of 65 dBA for sensitive land uses. Note that the CNEL value considers noise over a 24-hour period with noise produced between 7:00 and 10:00 p.m. artificially increased by 5 dBA and noise created between 10:00 p.m. and 7:00 a.m. artificially increased by 10 dBA.

Environmental Assessment

A. Would the project result in increases in existing noise levels?

Not Applicable

Subsequent to construction, the project would generate no noise and would not result in increases to existing noise levels. Construction noise is addressed below in Item B.

B. Would the project result in exposure of people to severe noise levels?

Less than Significant Impact

Heavy trucks required to deliver necessary supplies would add to the ambient noise produced along local roadways. The field survey of 1997 revealed that the only sensitive land uses located between the project site and the Otay Landfill stockpile site are those noted along Cactus Road. Construction truck traffic is not expected to exceed approximately 20 trips per day. In the field study, 23 trucks were noted on Cactus Road over a period of minutes. Because a doubling in the number of trucks is required to raise ambient noise by 3 dBA and a tripling is required to raise noise by 5 dBA, the trucks associated with landfill closure would not add measurably to the ambient noise produced by vehicle traffic.

Heavy equipment operations involved with the site closure would temporarily raise noise levels proximate to the site. Noise from the use of heavy equipment is estimated at 89 dBA at a distance of 50 feet (USEPA 1971). Based on an 8 hour per day construction schedule, this equates to a CNEL of 84 dBA also measured at a distance of 50 feet. The nearest sensitive receptor (residence) is located on the Dantzler Property approximately 50 feet from the Sesi property boundary and the proposed construction effort. If the equipment were to remain at this distance for the entire 8 hours of the construction day (with no breaks), as stated above, the resultant CNEL is calculated at 84 dBA. Again assuming the equipment is stationary onsite and takes no breaks, the 65 dBA CNEL would fall at a distance of approximately 450 feet.

Based on the field study, the measured ambient noise was approximately 64 dBA. As the measurement was not obtained during the peak noise or traffic hour, higher values would be expected during other parts of the day. Furthermore, the CNEL would also be greater due to the fact that noise produced between 7:00 p.m. and 7:00 a.m. is artificially penalized. To raise the measured 64 dBA value by 5 dBA

(the criterion level) heavy equipment would have to produce a noise level of 67 dBA as measured at the receptor location. Again using a value of 89 dBA for heavy equipment noise, the 67 dBA value would fall at a distance of approximately 630 feet. As receptors will be located within this distance, a potentially significant impact is projected. The applicable noise ordinance for this project is San Diego City Code Section 59.5.0401. The following permit conditions will ensure that project impacts remain less than significant:

Permit Conditions:

N-1: Construction activities shall occur between 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 7:00 p.m. on Saturdays. No construction shall occur Sundays or holidays.

N-2: All equipment shall have operating mufflers and engine shrouds.

N-3: Any stationary equipment shall be located as far from existing residences as is feasible.

3.12 PUBLIC SERVICES

Environmental Setting

Public services (fire, police protection, road maintenance, etc.) for the area are provided through the City of San Diego Fire Department. The site has a 6-foot high chain-link fence along its boundaries, which is gated for vehicle access at the site entrance. Due to the proximity of the site to the Mexican border, the Border Patrol has sensors in place onsite which send silent alarms to the patrol officers when stepped/driven on. Due to the high level of activity involving illegal border crossings, the fence onsite is continually subjected to damage from persons climbing over and vehicles driving through.

Threshold of Significance

For the purposes of this analysis, a project will have a significant adverse impact on public services if it requires an alteration or expansion of public services.

Environmental Assessment

A. Would the project have an effect upon, or result in a need for new or altered government services in relation to fire protection?

Not Applicable

The project would not place increased demands on fire protection services as post-construction use will be that of open space. The proposed construction is comprised primarily of grade and fill activities and little to no activities that would be considered unusual during construction that would require fire protection. In addition, a water truck would be onsite for the day-to-day dust control and soil compaction activities.

B. Would the project have an effect upon, or result in a need for new or altered government services in relation to police protection?

Not Applicable

The proposed project involves the closure of a landfill with the end use as that of open space, and would not place increased demands on law enforcement services during construction or post construction. Please refer to Item E below regarding border patrol and site security issues.

C. Would the project have an effect upon, or result in a need for new or altered government services in relation to school services?

Not Applicable

No development is associated with the site, thus no increase in population or need for altered school services would result.

D. Would the project have an effect upon, or result in a need for new or altered government services in relation to maintenance of public facilities, including roads?

Not Applicable

Proposed project construction activities would be limited to onsite actions. No roadwork is associated with the project, and there will be no need for expanded maintenance services for roadways or other public facilities.

E. Would the project have an effect upon, or result in a need for new or altered government services in relation to other governmental services?

Not Applicable

The construction activities would be limited to onsite actions and is of short duration. There would be no impacts on other governmental services as no development is proposed. Arrangements will be made with the Border Patrol to relocate existing sensors, and to discuss on the best way(s) to help limit site trespassing during revegetation efforts. In order to address Border Patrol concerns, revegetation as described in Section 3.8 *Biological Resources* would limit the use of medium to tall shrubs and trees.

F. Would the project result in inadequate emergency access?

Not Applicable

The proposed project involves the closure of a landfill and would not result in an increase in population, involve new roadway work, or increased demand in governments services that could result in inadequate emergency access.

3.13 UTILITIES AND SERVICE SYSTEMS

Environmental Setting

Electrical service and water needs would be associated with the proposed closure activities. Electrical service lines are located along Cactus Road. Water service for construction activities is not available onsite.

Threshold of Significance

For the purposes of this analysis, a project will have a significant adverse impact on utility systems if it requires an alteration or expansion of those systems.

Environmental Assessment

A. Would the project result in a need for new systems, or substantial alterations to power and gas services?

Not Applicable

Electrical service to the project site for construction activity, if required, would be provided from an existing vault on Cactus Road or portable generators. No other power and gas services would be required as part of the project. Therefore, the proposed project would not result in a need for new systems or substantial alterations to power and gas services.

B. Would the project result in a need for new systems, or substantial alterations to communication systems?

Not Applicable

No needs for temporary or permanent communication systems would be associated with site activity. It is expected that communication would be conducted via the contractor's cellular phones. No impacts to communications systems would occur.

C. Would the project result in a need for new systems, or substantial alterations to local or regional water treatment or distribution facilities?

Not Applicable

The only water usage associated with the project would be water for dust control, which would be transported to the site. Water usage will be minimal and short-term. No water treatment is associated with the project. Thus, there would be no impact to local or regional water treatment or distribution facilities.

D. Would the project result in a need for new systems, or substantial alterations to sewer systems or septic tanks?

Less than Significant Impact

As noted is Section 3.5, Water Quality Item F, a liquid collection system consisting of a gravel trench drain at the toe of the landfilled waste is planned as part of the project. The collection system would extract subsurface liquid from the trench to an aboveground tank. One option that would be considered for disposal of the liquid would be to discharge into a sewer system for treatment at a POTW facility. A disposal permit issued by the San Diego County Sanitation District would be required for disposal. No additional project activities would result in disposal into sewer or septic systems. The need for new sewer systems or substantial alterations to existing sewer systems in not anticipated and impacts are considered to be below a level of significance.

E. Would the project result in a need for new systems, or substantial alterations to storm water drainage?

Not Applicable

As provided in Section 3.5 *Water*, subsection A, the proposed project would include the installation of a drainage control system for runoff from the waste fill and run-on from adjacent properties and protect the waste containment system. The drainage control facilities would be constructed in accordance with CCR Title 27. New channels, as part of the drainage control system, will convey run-on and run-off into the natural drainage channel in Spring Canyon. All new drainage systems would be confined to the subject property and no new public storm water facilities would be required. Therefore, the project would not result in impacts to public flood control works.

F. Would the project result in a need for new systems, or substantial alterations to solid waste disposal?

Not Applicable

There is a small amount of debris presently onsite which would be transported to a local sanitary landfill for disposal. Project implementation would result in manageable quantities of solid waste. There would be requirement for new or modified systems and thus, no impacts associated with solid waste disposal.

G. Would the project result in a need for new systems, or substantial alterations to local or regional water supplies?

Not Applicable

Water service for dust control would be provided via water trucks permitted to obtain water from a local hydrant approximately one mile from the site. A hydrant meter and permit from the Otay Water District would be necessary to obtain the water. The effects on the water supply will be short-term. Thus, there will be no impact to local or regional water supplies.

3.14 AESTHETICS

Environmental Setting

The Otay Mesa Area is a plateau with relatively mild topography relief sloping to the west-southwest, except along the walls of Spring Canyon. The area of landfilled waste is covered with sparse to moderately-thick annual grasses and weeds. The canyon bottom is host to denser riparian vegetation and scattered trees. The project site is currently vacant, undeveloped land. The area has been extensively graded and filled and therefore, is heavily disturbed. Debris is littered all across the site. Prominent erosional scars exist along the western slope face.

Scattered residences have views of the site. No sources of light are onsite.

Threshold of Significance

For the purposes of this analysis, a project will have a significant adverse aesthetic impacts if the proposed changes have a substantial, demonstrable negative aesthetic effect.

Environmental Assessment

A. Would the project affect a scenic vista or scenic highway?

Not Applicable

There are no state designated scenic highways in the project site area. Topography would change slightly because the landfilled areas of the site would be capped and revegetated, but no existing scenic vista would be affected. Therefore, the proposed project would not impact a scenic vista or scenic highway.

B. Would the project have a demonstrable negative aesthetic effect?

Not Applicable

The project site would be cleared of debris, and graded for closure filling and capping. The site topography would change slightly as the landfilled areas are capped and revegetated. Revegetation would consist of native vegetation that would provide protection against erosion on the landfilled cover. After revegetation, the area would blend into the surrounding environment to the southwest of the project site. This activity would result in a beneficial visual impact to the local land users.

C. Would the project create light or glare?

Less than Significant Impact

Project implementation is scheduled during daylight hours. Nonetheless, temporary light sources may be used during construction. These light sources would be short-term and focused on the construction actions. Impacts would be less than significant. After construction, no new sources of light or glare are proposed.

3.15 CULTURAL AND PALEONTOLOGICAL RESOURCES

Environmental Setting

The landfill property is on Otay Mesa, much of which has been surveyed for cultural resources. It is known that most of Otay Mesa is covered by a very sparse scatter of prehistoric waste products (debitage) from testing cobbles for use in making stone tools.

The area of the landfill has been previously disturbed by grading and filling during past operations of the landfill. The area of the soil borrow pit has some minor surface disturbance from previous farming operations and has since become fallow. There is no evidence of significant subsurface disturbance. The expected construction disturbance boundaries associated with the proposed project have been previously disturbed from landfill operations, or minor surface disturbance from farming operations, with some small areas to be newly disturbed.

Thresholds of Significance

A project would have a significant impact on cultural resources if it demolishes or materially impairs a Historical Resource or a paleontological site, except as part of a scientific study. A Historical Resource is one which meets the eligibility criteria of the California Register of Historical Resources (CRHR) or is included in a city or county's register of historical resources.

Environmental Assessment

A. Would the proposed project grade or disturb geologic formations that may contain potentially significant paleontological resources?

Less than Significant Impact with Mitigation Incorporated

A review of paleontological maps at the San Diego Museum of Natural History by a qualified paleontologist indicates that the project is located on geological formations that may contain significant paleontological resources (Appendix IV). The Lindavista, San Diego, and Otay Formations that underlie the project are all known to produce terrestrial invertebrate and other fossil types. All three formations are considered to be of high paleontological sensitivity, with the San Diego and Otay Formations having a high probability of containing significant paleontological resources, and the Lindavista Formation having a somewhat lower probability. The following mitigation measures apply:

Mitigation Measures:

CR-1: Prior to preconstruction (precon) meeting

1. Land Development Review (LDR) Plan Check

   Prior to the issuance of a Notice to Proceed (NTP) or any permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, the Environmental Review Manager (ERM) of LDR shall verify that the requirements for Paleontological Monitoring have been noted on the appropriate construction documents.

2. Letters of Qualification have been submitted to ERM

   Prior to the recordation of the first final map, NTP, and/or, including but not limited to, issuance of a Grading Permit, Demolition Permit or Building Permit, the applicant shall provide a letter of verification to the ERM of LDR stating that a qualified Paleontologist, as defined in the City of San Diego Paleontological Guidelines, has been retained to implement the monitoring program.

3. Second Letter Containing Names of Monitors has been sent to Mitigation Monitoring Coordination (MMC).

   a. At least thirty days prior to the Precon Meeting, a second letter shall be submitted to MMC which shall include the name of the Principal Investigator (PI) and the names of all persons involved in the Paleontological Monitoring of the project.

   b. MMC will provide Plan Check with a copy of both the first and second letter.

4. Records Search Prior to Precon Meeting

   At least thirty days prior to the Precon meeting, the qualified Paleontologist shall verify that a records search has been completed, and updated as necessary, and be prepared to introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities. Verification includes, but is not limited to, a copy of a confirmation letter from the San Diego Natural History Museum, other institution, or, if the record search was in-house, a letter of verification from the PI stating that the search was completed.

Precon Meeting

1. Monitor Shall Attend Precon Meetings

   a. Prior to beginning of any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the Paleontologist, Construction Manager and/or Grading Contractor, Resident Engineer (RE), Building inspector (BI), and MMC. The qualified Paleontologist shall attend any grading related Precon Meetings to make comments and/or suggestions concerning the Paleontological Monitoring Program with the Construction Manager and/or Grading Contractor.

   b. If the Monitor is not able to attend the Precon Meeting, the RE, or BI as appropriate, will schedule a focused Precon Meeting for MMC, Monitors, Construction Manager and appropriate Contractor's representatives to meet and review the job on-site prior to start of any work that requires monitoring.

2. Identify Areas to be monitored

   At the Precon Meeting, the Paleontologist shall submit to MMC a copy of the site/grading plan (reduced to 11x17) that identifies areas to be monitored.

3. When Monitoring Will Occur

   Prior to the start of work, the Paleontologist also shall submit a construction schedule to MMC through the RE, or BI, as appropriate, indicating when and where monitoring is to begin and shall notify MMC of the start date for monitoring.

During Construction

1. Monitor Shall be Present During Grading/Excavation

   a. The qualified Paleontologist shall be present full-time during the initial cutting of previously undisturbed formations with high and moderate resource sensitivity, and shall document activity via the Consultant Site Visit Record (form). This record shall be faxed to the RE, or BI as appropriate, and MMC each month.

2. Discoveries

   a. Minor Paleontological Discovery

      In the event of a minor Paleontological discovery (small pieces of broken common shell fragments or other scattered common fossils) the Paleontologist shall notify the RE, or BI as appropriate, that a minor discovery has been made. The determination of significance shall be at the discretion of the qualified Paleontologist. The Paleontologist will continue to monitor the area and immediately notify the RE, or BI as appropriate, if a potential significant discovery emerges.

   b. Significant Paleontological Discovery

      In the event of a significant Paleontological discovery, and when requested by the Paleontologist, the city RE, or BI as appropriate, shall be notified and shall divert, direct, or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains. The determination of significance shall be at the discretion of the qualified Paleontologist. The Paleontologist with Principal Investigator (PI) level evaluation responsibilities shall also immediately notify MMC staff of such finding at the time of discovery. MMC staff will coordinate with appropriate LDR staff.

3. Night Work

   a. If night work is included in the contract

      (1) When night work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.

      (2) The following procedures shall be followed:

         (a) No Discoveries

            In the event that nothing was found during the night work, the PI will record the information on the Site Visit Record Form.

         (b) Minor Discoveries

            (1) All Minor Discoveries will be processed and documented using the existing procedures under **During Construction** 2. a. with the exception that the RE will contact MMC by 9 A.M. the following morning.

         (c) Potentially Significant Discoveries

            (1) If the PI determines that a potentially significant discovery has been made, the procedures under **During Construction** 2.b., will be followed, with the exception that the RE will contact MMC by 8 A.M. the following morning to report and discuss the findings.

b. If night work becomes necessary during the course of construction

(1) The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.

(2) The RE, or BI, as appropriate, will notify MMC immediately.

c. All other procedures described above will apply, as appropriate.

4. Notification of Completion

The Paleontologist shall notify MMC and the RE, or BI as appropriate, of the end date of monitoring.

Post Construction

The Paleontologist shall be responsible for preparation of fossils to a point of curation as defined by the City of San Diego Paleontological Guidelines.

1. Submit Letter of Acceptance from Local Qualified Curation Facility.

The Paleontologist shall be responsible for submittal of a letter of acceptance to ERM of LDR from a local qualified curation facility. A copy of this letter shall be forwarded to MMC.

2. If Fossil Collection is not Accepted, Contact LDR for Alternatives

If the fossil collection is not accepted by a local qualified curation facility for reasons other than inadequate preparation of specimens, the project Paleontologist shall contact LDR, to suggest an alternative disposition of the collection. MMC shall be notified in writing of the situation and resolution.

3. Recording Sites with San Diego Natural History Museum

The Paleontologist shall be responsible for the recordation of any discovered fossil sites at the San Diego Natural History Museum.

4. Final Results Report

a. Prior to the release of the grading bond, two copies of the Final Results Report (even if negative), which describes the results, analysis, and conclusions of the above Paleontological Monitoring Program (with appropriate graphics) shall be submitted to MMC for approval by the ERM of LDR.

b. MMC shall notify the RE or BI, as appropriate, of receipt of the Final Results Report.

B. Would the proposal materially impair the significance of an Historical Resource? An Historical Resource is one which meets the eligibility criteria of the California Register of Historical Resources (CRHR) or is included in a local register of historical resources. The eligibility criteria for the CRHR are as follows:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

Less than Significant Impact

The project site has been field inspected by Richard Shepard, M.A., RPA of Chambers Group, a County of San Diego certified archeologist, who has made the determination that the property contains one archaeological site (CA-SDI-11,423). An archaeological test program has been performed by Jackson Underwood, Ph.D., a County of San Diego certified archaeologist, and CA-SDI-11,423 has been evaluated as not eligible for the CRHR (see Appendix IV). Artifacts on the surface of the site consist of two choppers, three core fragments, and 7 flakes. Nine shovel test pits (STPs) measuring 0.5 by 0.5 meters were excavated at the site as part of the test program. The only artifacts found in the STPs were two flakes from 0 to 10 cm below surface. Given this extremely limited artifact assemblage, the lack of any material suitable for radiocarbon dating, and the lack of any subsistence remains, such as animal bone or marine shell, it is concluded that the site does not have the potential to contribute meaningful research information beyond what has already been recovered during the test program. Therefore, the site is not eligible under CRHR Criterion D because it does not have the potential to contribute information important in prehistory or history. The site is also not eligible under Criteria A or B because no important events or persons, either historical or based on Native American oral traditions, have been identified that might have been associated with site CA-SDI-11,423. The site does not embody any distinctive characteristics of a period or style, nor does it possess high artistic value. Therefore, it is not eligible under Criterion C. Because the site does not meet the eligibility requirements of the CRHR and is not listed on any local register of historical resources, it is not an Historical Resource for the purposes of CEQA. Only impacts to Historical Resources are potentially significant. Therefore, the project will not have a significant impact on Historical Resources and no mitigation measures are necessary.

3.16 RECREATION

Environmental Setting

The project site is situated approximately 15 miles southeast of downtown San Diego, and about 1.25 miles north of the United States-Mexico International Border in the Otay Mesa Area. The Otay Mesa Area is sparsely developed, and currently the project site is vacant, undeveloped land.

Threshold of Significance

For the purposes of this analysis, a project will normally have a significant adverse impact on the environment if it is in conflict with the established recreational, educational, religious, or scientific uses of the area.

Environmental Assessment

A. and B. Would the project increase the demand for neighborhood or regional parks of other recreational facilities or affect existing recreational opportunities?

Not Applicable

The closure of the landfill would not create a demand for park facilities. There are no recreational facilities on the site nor is the vacant site currently used for recreation. The proposed project would have no impact on neighborhood or regional parks or other recreational facilities, or affect existing recreational opportunities.

3.17 CUMULATIVE IMPACTS

This discussion corresponds to Section 4.0 *Mandatory Findings of Significance*, Subsection c below.

Environmental Setting

Cactus Road is designated as a 4-lane collector road in the City of San Diego's Adopted Circulation Plan (City of San Diego 1999). Under this designation, Cactus Road would be widened and improved in accordance with the Adopted Circulation Plan as future development of properties along Cactus Road may occur in accordance with the Otay Mesa Community Plan (City of San Diego website, www.sandiego.gov 2003). The City plans to incorporate a 26-foot wide right of way beyond the current easement on the west side of Cactus Road. The paved section west of the centerline will be 26-feet wide with curb and gutter improvements. The widening is shown on Figure 2-4, SR 905 Boundary.

Caltrans proposes to extend State Route 905 SR-905) from the Interstate 805 (I-805) area west of the site to the Otay Mesa International Border Crossing east of the site (Caltrans 2004). The southern edge of the proposed SR-905 right of way is planned to be approximately 200 feet north of the site (see Figure 2-4).

The Otay Mesa Community Plan

The project site is designated by the city of San Diego's Otay Mesa Community Plan as industrial and open space. The site has a zoning of OMDD- Industrial Subdistrict.

Threshold of Significance

Significant cumulative impacts would occur if the proposed project would have impacts that are individually limited but cumulatively considerable.

Environmental Assessment

Roadway Improvements

The proposed Cactus Road and SR-905 improvements would occur after the completion of the Sesi Project. The landfill closure would not cumulatively contribute to impacts associated with these roadway improvements. As part of the future improvements Caltrans will acquire lands inside of the new right of way, as such, Caltrans will acquire the Barnhart Property. The City would acquire lands along the eastern portion of the Sesi site. The closure action would not be required to provide improvements to Cactus Road.

The Otay Mesa Community Plan

No zoning or use designation changes are proposed as part of the project, and the site will remain as open space following closure. As such, there would be no adverse cumulative impacts with any other nearby proposed developments.

Biology and Water Quality

The proposed project will not contribute to the cumulative environment since the project incorporates by design and with mitigation measures that reduce project impacts to less than significant. The project will actually result in beneficial impacts since it is a closure/clean-up action.

Air Quality and Noise

Temporary impacts are associated with construction. No permanent impacts from the project will occur and therefore will not contribute to the cumulative environment.

SECTION 4.0 – MANDATORY FINDINGS OF SIGNIFICANCE

A. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As discussed in Sections 3.8 Biological Resources and 3.15 Cultural and Paleontological Resources above, the proposed project could potentially degrade the environment, or contribute to substantial impacts to habitat; fish, wildlife, or plant communities, including rare or endangered species; or impact cultural resources. Mitigation measures to avoid or reduce impacts to less than significant have been incorporated into the project.

B. Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals?

The project would create both short term and long term beneficial impacts related to environmental goals. The project would remediate environmental hazards associated with the existing landfill. Long term environmental goals to establish a native vegetation community and open space at the site would be achieved through the implementation of the *Revegetation Plan* and ongoing monitoring and maintenance of the site as described in the RAW.

C. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considered when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

The project would remediate the adverse environmental impacts associated with the current exposed landfill. Once the project is completed there would be no impacts associated with any long-term operations. As such, the project is not considered to contribute to any incremental long term cumulative effects associated with other projects. The closure of the landfill and revegetation of the site as open space will be a beneficial impact to the local area. Temporary construction related impacts (e.g., air quality, traffic, hazards, etc), which were determined to be less than significant on an individual project basis, would not contribute to cumulative impacts from foreseeable projects, as there are no known probable future projects projected to occur simultaneously in the vicinity of the landfill site. As discussed in Section 3.17, Caltrans will acquire the Barnhart Property for SR-905. The City would acquire lands along the eastern portion of the Sesi site after the landfill closure occurs. The Sesi site closure action would not be required to provide improvements to Cactus Road. The landfill closure would not cumulatively contribute to impacts associated with these roadway improvements.

D. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project would remediate existing adverse environmental impacts created by the former landfill operations. Therefore, direct and indirect adverse effects on human beings from the current former landfill conditions would be eliminated or minimized with the proposed cover. Potential adverse direct and indirect effects to humans associated with the proposed construction activities would be mitigated to a less than significant level through the implementation of the Worker Health and Safety Plan (WHSP) and Community Health and Safety Plan (CHSP), which are included in the RAW. Other potential impacts to humans with regard to air quality and noise would be mitigated with the incorporation of mitigation measures discussed Section 3.6 for Air Quality and permit conditions discussed in Section 3.11for Noise.

SECTION 5.0 – LIST OF PREPARERS, REFERENCES, ORGANIZATIONS/PERSONS CONSULTED

5.1 LIST OF PREPARERS

Chambers Group

Linda Brody, Project Manager
Kacen Clapper, Associate Environmental Analyst
Brian McCarthy, Associate Environmental Analyst
Roger Mason, Ph.D., Cultural Resources
Richard Shepard, Associate Archeologist
Paul Brenner, Permitting
Christine Tischer, Wildlife Biologist
Stacie Tennant, Wildlife Biologist
Lisa Allen, Wildlife Biologist

Synectecology

Todd Brody, Air Quality/Noise

County of San Diego

Richard Gilb, County DEH
Pamela Raptis, County DEH

5.2 REFERENCES

USEPA, Bolt, Beranek, and Newman
1971 *Noise From Construction Equipment and Operations, Building Equipment, and Home Appliances.*

Blake, T.F.
1994 *EQSEARCH - A Computer Program for the Estimation of Peak Horizontal Acceleration from Southern California Historical Earthquake Catalogs, User's Manual.*

California Department of Transportation (Caltrans)
2004 Route 905 Final Environmental Impact Statement/Report.

California Department of Water Resources (DWR)
1986 *San Diego Region Ground Water Studies, Phase 111; El Cajon Hydrologic Subarea, Otay Hydrologic Subarea, Sweetwater Hydrologic Subarea, San Ysidro Hydrologic Subarea, and San Clemente Hydrologic Subarea.*

California Interstate Guide
2003 Website: www.interstate-guide.com/I-905-ca.html

California Regional Water Quality Control Board (RWQCB)
1991 *San Diego Region*, *Resolution 91-79.*

City of San Diego

1997 *City of San Diego, Multiple Species Conservation Program (MSCP) Subarea Plan.*

1997 Otay Mesa Community Plan.

1999 Adopted Circulation Plan. Otay Mesa Community Plan. Approved November 23, 1999

2000 *City of San Diego, Biological Review References.*

2000 *San Diego Municipal Code*, Division 1 *Environmentally Sensitive Lands Regulations* (Effective 1-1-2000).

2003 City website, www.sandiego.gov 2003

County of San Diego

1991 The Resource Protection Ordinance (Effective October 10, 1991).

Department of Conservation, Division of Land Resource Protection

2001 GIS Coverage of Important Farmland, location: ftp.consrv.ca.gov/pub/dlrp/fmmp/.

EDAW, Inc.

2002 Archaeological Testing of Site CA-SDI-11,423. Otay Mesa, San Diego, California. Author: Jackson Underwood, Ph.E., R.P.A. August 2002.

ENV America Incorporated

1996 Hydrology Report for Sesi Property Closure Project, Otay Mesa, San Diego, California.

2005 Removal Action Workplan (RAW) for the Sesi Property Closure Project, Otay Mesa, San Diego, California. February 2005.

Rick Engineering

2004 *General Construction Activity, Storm Water Pollution Prevention Plan (SWPPP), Sesi Property Closure.*

Seed, H.B.

1986 Design Problems in Soil Liquefaction, Earthquake Engineering Center. Report No. UBC/ EERC-86-2, University of California, Berkeley.

South Coast Air Quality Management District (SCAQMD)

1993 *Air Quality Handbook.*

5.3 ORGANIZATIONS/PERSONS CONSULTED

Caltrans, Chuck Davis, Engineering, July 6, 2004

City of San Diego, Development Services Department, Max Stalheim, Senior Planner, December 11, 2003

City of San Diego, Traffic Engineering Division, Sandy Rehmann, Assistant Traffic Engineer, April 11, 2002.

City of San Diego, Traffic Engineering Division, David Naf, Traffic Engineer, December 10, 2003.

County of San Diego Office of Disaster Preparedness, Susan Asturias, Duty Officer, November 10, 1998.

Department of Environmental Health, Richard Gilb, August 15, 1997.

San Diego Air Pollution Control District, website, 2001.

Appendix I
Environmental Checklist

1.	Project Title:	Sesi Property Closure Project
2.	Lead Agency Name and Address:	County of San Diego Department of Environmental Health Local Enforcement Agency 9325 Hazard Way San Diego, CA 92123
3.	Contact Person and Phone Number:	Melissa Porter (858) 694-2801
4.	Project Location:	Otay Mesa, San Diego County
5.	Project Sponsor's Name and Address:	Coordinating Committee United States District Court 940 Front Street San Diego, CA 92189
6.	General Plan Designation:	Industrial and Open Space
7.	Zoning:	Industrial and Open Space

8. Description of Project:

The project site consists of the Sesi Property, which was formerly recognized as part of the Tripp Salvage Landfill. The landfill consisted of the Sesi Property and the adjoining Barnhart and Dantzler properties. Collectively the three sites were referred to as the Cactus Road Landfill.

The Cactus Road Landfill site has not accepted waste since 1987 and is now deemed for closure. The closure of the waste fill at the Sesi site involves the construction of an engineered cover, along with the implementation of a post construction monitoring and sampling program. The cover will control exposure of the waste and prevent surface water infiltration, that could enhance the mobility of chemicals within the waste. The Barnhart and Dantzler properties were capped with an impermeable cover. A Mitigated Negative Declaration was completed in 2001 for the closure of these two properties in accordance with CEQA.

9. Surrounding Land Uses and Setting:

Properties in the site vicinity are used for industrial, agricultural, and residential purposes. The Sesi Property has been landfilled and left in a disturbed state. The neighboring Barnhart Property contains a small bungalow dwelling at the extreme northeastern corner of the property, and a fenced-in trailer area that is used for both industrial and residential purposes at the southeastern quadrant of this property. The neighboring Dantzler Property contains a house and mobile home located along the north-central portion of the site, and a storage shed along the western edge of the site. Shrubs, grass, and a few small trees around the house are the only vegetation on what is generally exposed, barren soil. A large tomato farm exists on the eastern side of Cactus Road with a residence located on the eastern end of the farm. The two parcels just to the east of Spring Canyon (not part of the subject property) both contain occupied residences, and the southern parcel is also paved and used for auto storage.

APPENDIX I

INITIAL STUDY CHECKLIST

10. Approvals/Permits Required:

Responsible, trustee, and other public agencies and/or entities who may use this Initial Study for informational purposes include, but are not be limited to the following: California Regional Water Quality Control Board (San Diego Region), California Integrated Waste Management Board, San Diego County Air Pollution Control District, California Department of Fish and Game, and the U.S. Army Corps of Engineers.

Several permits or approvals will be required as part of the process. These are shown in the table below.

AGENCY	PERMIT OR APPROVAL
County of San Diego	Approval of the RAW, Adoption of the MND and Site Development Permit
City of San Diego	Grading Permit
California Department of Fish & Game	Streambed Alteration Agreement
U.S. Army Corps of Engineers	Nationwide Permit
California Regional Water Quality Control Board	Water Quality Certification

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- ☐ Land Use and Planning
- ☐ Population and Housing
- ☐ Geological Problems
- ☐ Water
- ☐ Air Quality
- ☐ Transportation/Circulation
- ☐ Biological Resources
- ☐ Energy and Mineral Resources
- ☐ Hazards
- ☐ Noise
- ☐ Mandatory Findings of Significance
- ☐ Public Services
- ☐ Utilities and Service Systems
- ☐ Aesthetics
- ☐ Cultural Resources
- ☐ Recreation

Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. ☐

Signature	Date
Printed Name	For Lead Agency

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	Not Applicable
I. LAND USE AND PLANNING. Would the proposal:				
a) Conflict with general plan designation or zoning?	☐	☐	☐	☒
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	☐	☒	☐	☐
c) Be incompatible with existing land uses in the vicinity?	☐	☐	☒	☐
d) Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses?	☐	☐	☐	☒
e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☐	☐	☐	☒
II. POPULATION AND HOUSING. Would the proposal:				
a) Cumulatively exceed official regional or local population projections?	☐	☐	☐	☒
b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	☐	☒
c) Displace existing housing, especially affordable housing?	☐	☐	☐	☒
III. GEOLOGIC ISSUES. Would the proposal result in or expose people to potential impacts involving:				
a) Fault rupture?	☐	☐	☐	☒
b) Seismic ground shaking?	☐	☐	☐	☒
c) Seismic ground failure, including liquefaction?	☐	☐	☐	☒
d) Seiche, tsunami, or volcanic hazard?	☐	☐	☐	☒
e) Landslides or mudflows?	☐	☐	☒	☐
f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?	☐	☐	☒	☐
g) Subsidence of the land?	☐	☐	☒	☐
h) Expansive soils?	☐	☐	☒	☐
i) Unique geologic or physical features?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	Not Applicable
IV. WATER. Would the proposal result in:				
a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	☐	☐	☒	☐
b) Exposure of people or property to water related hazards such as flooding?	☐	☐	☐	☒
c) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)?	☐	☐	☒	☐
d) Changes in the amount of surface water in any water body?	☐	☐	☒	☐
e) Changes in currents, or the course or direction of water movements?	☐	☐	☒	☐
f) Change in the quantity of groundwaters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations, or through substantial loss of groundwater recharge capability?	☐	☐	☒	☐
g) Altered direction or rate of flow of groundwater?	☐	☐	☒	☐
h) Impacts to groundwater quality?	☐	☐	☒	☐
i) Substantial reduction in the amount of groundwater otherwise available for public water supplies?	☐	☐	☒	☐
V. AIR QUALITY. Would the proposal:				
a) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☒	☐	☐
b) Expose sensitive receptors to pollutants?	☐	☐	☒	☐
c) Alter air movement, moisture, or temperature, or cause any change in climate?	☐	☐	☐	☒
d) Create objectionable odors?	☐	☐	☐	☒
VI. TRANSPORTATION/CIRCULATION. Would the proposal result in:				
a) Increased vehicle trips or traffic congestion?	☐	☐	☒	☐
b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
c) Inadequate emergency access or access to nearby uses?	☐	☐	☐	☒
d) Insufficient parking capacity onsite or offsite?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	Not Applicable
e) Hazards or barriers for pedestrians or bicyclists?	☐	☐	☐	☒
f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒
g) Rail, waterborne or air traffic impacts?	☐	☐	☐	☒
VII. BIOLOGICAL RESOURCES. Would the proposal result in impacts to:				
a) Rare or endangered animal or plant species or the habitats of the species?	☐	☒	☐	☐
b) Environmentally sensitive lands (wetland habitats or habitats locally designated important, such as areas within or habitats protected by the MSCP)?	☐	☒	☐	☐
c) Movement of any resident or migratory fish or wildlife species (i.e., wildlife dispersal or migration corridors)?	☐	☐	☐	☒
d) Habitat for fish, wildlife or plants?	☐	☒	☐	☐
e) Locally designated species (e.g., heritage trees)?	☐	☐	☐	☒
VIII. ENERGY AND MINERAL RESOURCES. Would the proposal:				
a) Conflict with adopted energy conservation plans?	☐	☐	☐	☒
b) Use non-renewable resources in a wasteful and inefficient manner?	☐	☐	☐	☒
c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	☒
IX. HAZARDS. Would the proposal involve:				
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals, or radiation)?	☐	☐	☒	☐
b) Possible interference with the County of San Diego Operational Area Emergency Plan or the County of San Diego Operational Site Specific Dam Failure Evacuation Data Plans?	☐	☐	☒	☐
c) The creation of any health hazard or potential health hazard?	☐	☐	☐	☒
d) Exposure of people to existing sources of potential health hazards?	☐	☐	☐	☒
e) Increased fire hazard in areas with flammable brush, grass, or trees?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	Not Applicable
X. NOISE. Would the proposal result in:				
a) Increases in existing noise levels?	☐	☐	☐	☒
b) Exposure of people to severe noise levels?	☐	☐	☒	☐
XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Maintenance of public facilities, including roads?	☐	☐	☐	☒
e) Other governmental services?	☐	☐	☐	☒
f) Emergency access?	☐	☐	☐	☒
XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:				
a) Power or natural gas?	☐	☐	☐	☒
b) Communications systems?	☐	☐	☐	☒
c) Local or regional water treatment or distribution facilities?	☐	☐	☐	☒
d) Sewer or septic tanks?	☐	☐	☒	☐
e) Stormwater drainage?	☐	☐	☐	☒
f) Solid waste disposal?	☐	☐	☐	☒
g) Local or regional water supplies?	☐	☐	☐	☒
XIII. AESTHETICS. Would the proposal:				
a) Affect a scenic vista or scenic highway?	☐	☐	☐	☒
b) Have a demonstrable negative aesthetic effect?	☐	☐	☐	☒
c) Create light or glare?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	Not Applicable
XIV. CULTURAL RESOURCES. Would the proposal:				
a) Grade or disturb geologic formations that may contain potentially significant paleontological resources?	☐	☒	☐	☐
b) Materially impair the significance of an Historical Resource (one that meets the eligibility criteria of the California Register of Historical Resources or is included in a local register of historical resources?	☐	☐	☒	☐
XV. RECREATION. Would the proposal:				
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	☐	☐	☐	☒
b) Affect existing recreational opportunities?	☐	☐	☐	☒
XVI. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	☐	☐	☐	☒
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☐	☒
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐