City of San Diego
Development Services

Land Development
Review Division
(619) 446-5460

ENVIRONMENTAL IMPACT REPORT

Project No. 122833
SCH No. 2006051004

SUBJECT: Miramar Service Life Extension/Height Increase: SOLID WASTE FACILITY PERMIT, SITE DEVELOPMENT PERMIT, LEASE AMENDMENT for the increase in permitted height of the existing West Miramar Landfill from 470 feet above mean sea level (amsl) in the 239-acre Phase I area to 485 feet amsl, and from 465 feet amsl in the 238-acre Phase II area to 485 feet amsl. The landfill is located at 5180 Convoy Street, north of Highway 52, east of Interstate 805, and west of Interstate 15 on a leased area of Marine Corps Air Station Miramar. No other changes to existing landfill operations are proposed.

Applicant: City of San Diego, Environmental Services Department

CONCLUSIONS:

This Environmental Impact Report (EIR) is written in a format that will also serve as an Environmental Impact Statement (EIS) for the federal action of modifying the lease. It analyzes the environmental impacts of the proposed Miramar Landfill Height Increase Project. The proposed discretionary actions consist of a Site Development Permit, Solid Waste Facility Permit, and Lease Amendment. No significant unmitigated impacts have been identified for this project.

ABREVIATED IMPACTS ANALYSIS:

Land Use: The facility is an existing use on Marine Corp Air Station (MCAS) Miramar. It is designated as such within the MCAS Integrated Natural Resources Management Plan. No change to the existing land use is proposed.

Air Quality: The Proposed Project would increase the service life of the landfill, but would not increase the rate at which waste is received at the landfill. The Proposed Project would not create any new sources of air emissions, but would extend the duration of emissions already generated at the landfill. No air quality impacts, in addition to existing impacts, would be caused by implementation of the Proposed Project, though these impacts would continue for four additional years. In addition, the number of vehicular trips would remain unchanged and within permitted amounts. Therefore, no significant air quality impact is anticipated.

Biological Resources: Construction of the Proposed Project would be limited to the manufactured surface of the landfill, and would have no direct impact on any unique, rare, endangered, sensitive, or fully protected species of plants or animals. No runoff from the site goes directly into any nearby habitat areas, instead runoff is, and would continue to be, directed into the landfill's drainage system, thus no sensitive species are or would be affected by this potential indirect impact. The entire project area has been previously disturbed and offers very little new habitat for plant and animal species. Therefore, no significant impacts are anticipated.

Geology: For landfill development, geological and engineering expertise is always required in order to design and operate the landfill in accordance with state and federal laws. The Proposed Project is situated so that it cannot effect slopes outside of its own footprint, from which the slopes rise, thus the project would cause no slides offsite. The landfill would comply with all stability standards. No significant impact is anticipated.

Health and Safety: Hazardous materials are prohibited from the landfill under the existing permit, and no changes to the landfill's classification are proposed. The landfill operation includes a load-check program to ensure their exclusion, and no changes to this program are proposed. No changes to safety procedures are proposed.

Cultural Resources: A previous EIR determined that the original landfill had no impacts to cultural resources. The Proposed Project would not disturb any soil that has not already been subject to landfill operations. There would be no change in the existing condition regarding impacts to this type of resource.

Paleontological Resources: The project would result in no disturbances, grading, or excavation outside the existing footprint of the existing landfill. There would be no change in the existing condition regarding impacts to this type of resource.

Mineral Resources: The City, which is the landfill operator, conducted studies identifying the presence of aggregate resources. Useful aggregate materials were excavated to the

degree considered appropriate considering the need to protect groundwater. The mining pit was then lined and prepared for filling. Therefore no loss of valuable resources occurred. The Proposed Project would not change this existing condition.

Noise: Ambient noise levels at the site are high as a result of the existing highways and aircraft overflights. The proposed project would very slightly increase the distance between the project site and the community. The existing facility already cannot be heard as a result of distance and other noise sources. Therefore no significant impacts are anticipated.

Traffic: The Proposed Project would not change the existing 2,000 trip per day limit. No increase in traffic into the site is expected as a result of this project.

Public Services and Facilities: The Proposed Project is located at an existing landfill, and additional public facilities would therefore not be needed. The Proposed Project extends the life of an existing public facility.

Public Utilities: Existing utilities that serve the existing landfill will be adequate to serve the Proposed Project, which includes no changes in operations. The Proposed Project would place no new demand on any public utility, and would provide four extra years of disposal capacity.

Visual Quality: The proposed grading plans clearly demonstrate that the proposed landforms would very closely imitate the existing onsite landform. The Proposed Project would mimic the permitted, existing topography almost exactly, with the exception that it would raise the final grade by a maximum of 20 feet. In addition, existing landfill operations would be extended an additional four years. The Proposed Project's impacts on the visual quality of the area were found to be insignificant with respect to views from residences, roadways, and recreational areas.

Water Quality/Hydrology: The existing drainage control system for WML consists of drainage channels, berms, downdrains, energy dissipaters, and detention basins. Drainage control systems for the Proposed Project would be similar to the existing drainage control system, but would differ slightly in contour, since the Proposed Project would have a higher ultimate elevation. In addition, groundwater protection and monitoring are part of the existing landfill operation, per the requirements of state law, Title 27. No changes to this program would be needed for the Proposed Project.

Energy Consumption and Conservation: The current energy consumption associated with landfill operations would not change. Because the landfill results in a net generation of energy, and the proposed height increase only increases this potential, only beneficial impacts are associated with the project.

ALTERNATIVES CONSIDERED:

No Project: The Proposed Project is for vertical height increases of up to 20 feet for phases I and II of the landfill. This would allow a maximum height limit of 485 feet amsl for both phases I and II. Under the No Project Alternative, development of phases I and II would be completed under the existing lease agreement and under existing permits with regulatory agencies and would reach its maximum height by 2012. This would leave the County of San Diego with one less landfill, which would result in higher volumes of waste disposal at other in-county and, potentially, out-of-county landfills.

Reduced Expansion (10-Foot Height Increase): Reducing the height increase to 10 feet would incrementally reduce the scale of the visual effects as compared to a 20-foot increase, would be less than the Proposed Project, but would provide less capacity, and would require special engineering techniques. It is possible that, as a result of difficulties associated with this modification, somewhat less than the expected two or so years of additional capacity could be achieved. Even if a full two years of additional capacity could be achieved, it would sacrifice two years of capacity for a marginal reduction in visual impact that is not considered significant in the Proposed Project.

MITIGATION, MONITORING AND REPORTING PROGRAM INCORPORATED INTO THE PROJECT:

Because the project has no significant impacts, no mitigation monitoring and reporting program has been developed or is required.

Robert J. Manis
Deputy Director
Development Services Department

May 16, 2007
Date of Draft Report

July 13, 2007
Date of Final Report

Analyst: MARILYN MIRRASOUL

RESULTS OF PUBLIC REVIEW

( ) No comments were received during the public input period.

( ) Comments were received but the comments do not address the accuracy or completeness of the environmental report. No response is necessary and the letters are attached at the end of the EIR.

(X) Comments addressing the accuracy or completeness of the EIR were received during the public input period. The letters and responses follow.

PUBLIC REVIEW:

The following individuals, organizations, and agencies received a copy or notice of the draft EIR and were invited to comment on its accuracy and sufficiency.

Distribution:

The following individuals, organizations, and agencies received a copy or notice of the draft EIR and were invited to comment on its accuracy and sufficiency.

Federal Government
Commanding General, MCAS Miramar Air Station (13)
US EPA
US Fish and Wildlife Service (23)
USDA Natural Resources Conservation SRVS (25)
Dept. of Interior, Environmental Policy and Compliance

State Government
Caltrans (31)
CA Department of Fish and Game (32)
CA Department of Fish and Game (Sacramento office)
California Integrated Waste Management Board (35)
California EPA (37A)
Resources Agency (43)
CA Regional Water Quality Control Board (44)
State Clearinghouse (46)
California Air Resources Board (49)
Water Resources Control Board
California Transportation Commission, Quality Advisory Committee

County Government
Air Pollution Control District (65)
Department of Public Works (70)
Dept. of Environmental Health (75)

City of San Diego
Mayor Sanders, MS 11A
Council President Peters, MS 10A
Councilmember Faulconer, MS 10A
Council Atkins, MS 10A
Council President Pro Tem Young, MS 10A
Councilmember Maienschein, MS 10A
Councilmember Frye, MS 10A
Councilmember Madaffer, MS 10A

Councilmember Hueso, MS 10A
Environmental Services, Lisa Wood (MS 1102A)
LDR EAS, Marilyn Mirrasoul
LDR Planning, Ismael Lopez
LDR Landscaping, Craig Hooker
LDR Transportation, Jim Lundquist
Transportation Development (78)
San Diego Fire Department, Sam Oates (MS 603)
San Diego Police Department, Jerry Hara (MS 711)
Geology, Pat Thomas (MS 401)
Long Range Planning, Maxx Stalheim (MS 4A)
Water Department, Chris Gascon (MS 910D)
LEA, Bill Prinz (MS 606L)
MWWD, Alejandro Ruiz (MS 22)
Bob Ferrier (80)
University Community Branch Library (81JJ)
Balboa Branch Library (81B)
Mira Mesa Library (81P)
Scripps-Miramar Library (81FF)
Tierrasanta Library (81ll)
Central Library (81)
Police Research and Analysis (84)
Real Estate Assets Dept. (85)
General Services (92)
Clairemont Community Service Center (MS 97)
City Attorney, Shirley Edwards (MS 59)

Others
City of Chula Vista (94)
City of Coronado (95)
City of Del Mar (96)
City of El Cajon (97)
City of Escondido (98)
City of Imperial Beach (99)
City of La Mesa (100)
City of Lemon Grove (101)
City of National City (102)
City of Poway (103)
Poway Library
City of Santee (104)
City of Solana Beach (105)
SANDAG (108)
San Diego County Regional Airport Authority (110)
SDGE (114)
Back Country Against Dumps (162)

Sierra Club (165)
San Diego Audubon Society (167)
Mr. Jim Peugh (167A)
Environmental Health Coalition (169)
California Native Plant Society (170)
Center for Biological Diversity (176)
Endangered Habitats League (182)
League of Women Voters (192)
Community Planner Committee (194)
Town Council Presidents Association (197)
Clairemont Mesa Planning Committee (248)
Clairemont Chamber of Commerce (249)
Clairemont Town Council (257)
Kearny Mesa Town Council (263)
Kearny Mesa Community Planning Group (265)
Marian Bear Recreation Council (267A)
Mira Mesa Community Planning Group (310)
Tierrasanta Community Council (462)
University City Community Planning Group (480)
University City Community Association (486)
BRG Consultants
San Diego Landfill Systems, Neil Mohr
United Veterans Council, Chairman Joe Brunner

Native Americans
Campo Band of Mission Indians
Cuyapaipe Band of Mission Indians
Inaja and Cosmit Band of Mission Indians
Jamul Band of Mission Indians
La Posta Band of Mission Indians
General Council, Chairperson
Mesa Grande Band of Mission Indians
San Pasqual Band of Mission Indians
Santa Ysabel Band of Mission Indians
Sycuan Band of Dieguena Mission Indians
Viejas Band of Mission Indians

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LETTER 1

U.S. Fish and Wildlife Service
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Carlsbad, California 92011
(760) 431-9440
FAX (760) 431-5902 + 9618

California Department of Fish & Game
South Coast Regional Office
4949 Viewridge Avenue
San Diego, California 92123
(858) 467-4201
FAX (858) 467-4299

In Reply Refer To:
FWS/CDFG-SDG-5375.1

Ms. Marilyn Mirrasoul
Development Services Center
1222 First Avenue, MS 501
San Diego, California 92101

JUL 2 2007

Subject: Comments on the Draft Environmental Impact Report for the Miramar Landfill Height Increase, San Diego County, San Diego, California

Dear Ms. Mirrasoul:

1-1 The U.S Fish and Wildlife Service (Service) and the California Department of Fish and Game (Department), hereafter collectively referred to as the Wildlife Agencies, have reviewed the above-referenced Draft Environmental Impact Report (EIR) dated May 17, 2005. The Wildlife Agencies have identified potential effects of this project on wildlife and sensitive habitats. The comments provided below and in the enclosure are based on the information provided in the EIR, the Biological Resources Report for the project, our knowledge of sensitive and declining vegetation communities, and our participation in regional conservation planning efforts.

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Federal Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA; Sections 15386 and 15381, respectively) and is responsible for ensuring appropriate conservation of the state's biological resources, including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act (CESA) and other sections of the Fish and Game Code. The Department also administers the Natural Community Conservation Planning (NCCP) Program. The City of San Diego is currently participating in the NCCP program through its MSCP Subarea Plan.

The project proposes to increase the permitted height of the existing West Miramar Landfill in the 239-acre Phase I area from 470 feet above mean sea level to 485 feet above sea level, and from 465 feet above sea level to 485 feet above sea level, within the 238-acre Phase II area. No other changes to existing landfill operations are proposed. The landfill is located at 5180 Convoy Street, north of Highway 52, east of I-805 and west of I-15 on a leased area of Marine Corps Air Station, Miramar (leased by the City of San Diego).

According to the EIR, construction of the project will be limited to the manufactured surface of the landfill and will not have a direct impact on any unique, rare, endangered, sensitive, or fully protected species of plants or animals. Furthermore, no runoff from the site will permitted to flow into habitat areas. Runoff from the site will be directed to the landfill's drainage system. According to the draft EIR the entire project area has been previously disturbed.

RESPONSE TO COMMENT LETTER FROM U.S. FISH AND WILDLIFE SERVICE, SIGNED BY THERESE O'ROURKE AND CALIFORNIA DEPARTMENT OF FISH AND GAME, SIGNED BY MICHAEL J. MULLIGAN, DATED JULY 2, 2007

Response to Comment 1-1:
This letter provides an overview of agency responsibilities, general concerns, and project description. Specific issues identified in the subsequent enclosure are addressed in subsequent responses.

1-1 (cont'd.)

The proposed project will impact about 0.07 acre of chamise chaparral, 2.36 acres of coastal sage scrub (CSS), 4.52 acres of southern mixed chaparral, and 1.0 acre of eucalyptus woodland. The remainder of the project footprint is occupied by disturbed habitat and developed lands. The 2007 Miramar Landfill Closure Conceptual Landscape Plan proposes to re-landscape the project area with an approved palette of native vegetation per City of San Diego (City) Multiple Species Conservation Program (MSCP) guidelines.

Several historical locations of fairy shrimp occur within the project buffer area according to the Biological Resource Report (Sect. 1.4.3). These areas must therefore be avoided by any project impacts (i.e., fenced-off from staging areas and any other project impacts). Also, Section 1, subsection 4.3 of the Biological Resource Report indicates that several California gnatcatchers (*Polioptila californica californica*), a federally-threatened/State Species of Special Concern, have been observed in the buffer zone on revegetated coastal sage scrub slopes just outside of the project area. Because of the close proximity of gnatcatchers and the potential for future occupancy of the project site, protocol gnatcatcher surveys should be conducted within one year of project construction. In addition, because burrowing owl (*Athene cunicularia)*, a State Species of Special Concern, prefer disturbed sites and may migrate to occupy open habitats at any time, burrowing owl surveys should be conducted prior to construction. Specific comments regarding these issues are included in the enclosure below.

We offer additional specific comments in the enclosure to assist the City in avoiding, minimizing, and adequately mitigating project-related impacts to sensitive biological resources, and to ensure that the project is consistent with all applicable requirements of the approved Subarea Plan. In summary, our primary concerns are, (1) potential indirect impacts to San Diego fairy shrimp, (2) the need for a biological monitor on-site, and (3) potential impacts to burrowing owls.

We appreciate the opportunity to comment on this Draft EIR. We are hopeful that further coordination between the Wildlife Agencies and the City will ensure the protection of the biological resources that may be affected by this project. If you have questions or comments regarding this letter, please contact Ayoola Folarin of the Service (760) 431-9440 or L. Breck McAlexander of the Department at (858) 467-4229.

Sincerely,

For Therese O'Rourke
Assistant Field Supervisor
U.S. Fish and Wildlife Service

FOR Michael J. Mulligan
Deputy Regional Manager
California Department of Fish and Game

cc:
State Clearinghouse

References Cited:

Biological Resources Report. Miramar Landfill Expansion. Prepared for City of San Diego Development Services Department. URS Project No. 27654416.15000. March 2007.

Miramar Landfill Closure Conceptual Plan. April 2007. Brennan, C., J. Howard, L. Wood, City of San Diego; and P. Mock, URS Corp.

Ms. Marilyn Mirrasoul (FWS/CDFG-SDG-5375.1) 1

Enclosure

1-2 1. If project impacts are proposed within 100 feet of the watershed of any vernal pool or within 100 feet of the watershed of any basin containing fairy shrimp, the project applicant should contact the Wildlife Agencies to discuss how to proceed so that impacts to fairy shrimp and their habitat are avoided. The 'Vegetation and Sensitive Species' figure in the final EIR should show the watersheds of the vernal pools in the buffer area.

1-3 2. A monitoring biologist should be on site during (1) initial clearing and grubbing of sensitive habitat/CSS and (2) project construction within 500 feet of preserved habitat to ensure compliance with all conservation measures. Because gnatcatchers have been observed within the project area, the biologist must be knowledgeable of gnatcatcher biology and ecology. The applicant should submit the monitoring biologist's name, address, telephone number, and work schedule for the project to the Wildlife Agencies at least seven days prior to initiating project impacts. The monitoring biologist should perform the following duties:

1-3a a. Oversee installation of and inspect the temporary fencing a minimum of once per week ensure that any breaks in the fence or erosion control measures are repaired in a timely fashion.

1-3b b. Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust, and that activities do not affect fairy shrimp, gnatcatchers, burrowing owls or their habitat.

1-3c c. Train all contractors and construction personnel on the biological resources associated with this project and ensure that training is implemented by project personnel. At a minimum, training should include: 1) the purpose for resource protection; 2) a description of the gnatcatcher and its habitat; 3) the conservation measures given in the MSCP that should be implemented during project activities to conserve the gnatcatcher and other MSCP-covered species, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced project footprint to avoid sensitive resource areas in the field (i.e., delineate areas to avoid on maps or on the project site by fencing); 4) environmentally responsible construction practices; 5) the protocol to resolve conflicts that may arise at any time during the construction process; 6) the general provisions of the Endangered Species Act, the need to adhere to the provisions of the Act, the penalties associated with violating the Act.

1-3d d. Halt work, if necessary, and confer with the Wildlife Agencies to ensure proper implementation of species and habitat protection measures. The biologist will report any violation to the Wildlife Agencies within 24 hours of its occurrence.

1-3e e. Clearing of CSS within the project footprint should occur outside of California gnatcatcher breeding season to avoid potential impacts to nesting gnatcatchers.

1-4 3. To ensure that no direct or indirect impacts to nesting burrowing owls occur during construction (including clearing and grubbing), construction activities within the area of potential effect for nesting habitat should occur outside of the burrowing owl's breeding season (April 15 to July 31), or sooner if a qualified biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete. If construction (other than vegetation clearing and grubbing) must occur

RESPONSE TO COMMENT LETTER FROM U.S. FISH AND WILDLIFE SERVICE, SIGNED BY THERESE O'ROURKE AND CALIFORNIA DEPARTMENT OF FISH AND GAME, SIGNED BY MICHAEL J. MULLIGAN, DATED JULY 2, 2007 (cont'd.)

Response to Comment 1-2:
Currently no runoff from the landfill is directed toward the vernal pool watersheds. No new areas are proposed for disturbance, and no new effects on runoff are proposed. The vernal pool watersheds have been added to Figure 9, "Vegetation and Sensitive Species."

Response to Comment 1-3:
Protocol surveys for the gnatcatcher were conducted as part of the information gathering for this EIR. No gnatcatchers were found in the project site. Construction will not "commence" at a particular date, it will merely continue, as the landfill continues to operate. There will be no break in the existing, current operation of the landfill. A staff biologist, certified to survey for gnatcatchers, works full time at the site. He and his biologist staff check the site for gnatcatchers, burrowing owls, non-native species that need to be controlled, and other biological issues. Thus it is not clear from this comment letter when, during the ongoing operation of this landfill, a protocol survey is desired. Currently the site receives continual monitoring. If the agencies would like a protocol survey at any specific time during the life of the landfill, the City would be pleased to conduct one. Notify the Environmental Services Department at the beginning of the season in any year a survey is desired. The Senior Biologist is John Howard. He can be reached by phone at (858) 573-1207. By mail he can be reached at 9601 Ridgehaven Court, San Diego, CA 92123.

Response to Comment 1-3a:
A full-time staff biologist monitors site conditions. An ongoing runoff monitoring and control program, as required by the Regional Water Quality Control Board, and as regulated under the individual Industrial Permit for landfill operations, is conducted on-site.

Response to Comment 1-3b:
Similarly, dust control is regulated under permit by the Air Pollution Control District and also by the Local Enforcement Agency, which provides regular inspections. Engineering staff oversee the work crews responsible for dust control. The staff biologist work closely with engineering staff on all operational functions.

1-4 (cont'd.)

during the breeding season, pre-construction surveys (in accordance with accepted survey protocols) must be performed by a City-approved biologist to determine the presence or absence of active burrows within all suitable habitat prior to the initiation of construction-related activities. The pre-construction surveys must be conducted within 10 calendar days prior to the start of construction, and results submitted to the City for review and approval prior to initiating any project activities. If an active burrow is detected during the breeding season, a mitigation plan should be prepared by a City of San Diego approved biologist and submitted to the City for review and approval. The applicant should implement the mitigation plan to the satisfaction of the City to ensure that disturbance of breeding activities is reduced to a level less than significant. Construction setbacks of 300 feet from occupied burrows should be implemented until the young are completely independent of the nest. A bio-monitor must be on site during construction until all young have fledged to minimize construction impacts and ensure that no nests are removed or disturbed and no nesting activities are disrupted. If an active burrow is found outside of the breeding season, or after an active nest is determined to no longer be active by a qualified biologist, the burrowing owl may be relocated in coordination with the Wildlife Agencies.

Response to Comment 1-3b: (cont'd.)

The Environmental Services Department has voluntarily applied for and achieved ISO 14001 certification, ensuring the highest level of environmental protection. Engineering staff oversee the implementation of this program, part of which entails continual improvement in operations.

Response to Comment 1-3c:

The staff biologists provide training on gnatcatchers, vernal pools, fairy shrimp, and other biological issues to Environmental Services Department employees, and also to other City employees and the public. Different trainings cover different topics, for example some are focused on vernal pools, others coastal sage scrub, and yet others on environmental regulation, including not only MSCP and ESA, but also 1602, CWA404, etc. A demonstration garden next to the native plant nursery is provided to assist with training. The site is located on the Marine Crops Air Station Miramar, which is located outside the MHPA; therefore, the MSCP topic is not covered during trainings conducted at the landfill (although it is covered at other trainings at other landfills throughout the City, such as Chollas and Arizona Street).

Response to Comment 1-3d, 1-3e and 1-4:

Staff biologists at the landfill ensure that activities in or near potentially sensitive habitat occur at the appropriate time of year considering gnatcatcher and burrowing owl biology, or if work is needed during nesting season, they conduct necessary surveys prior to authorizing work to proceed. They coordinate closely with engineering and field staff to ensure that no violations occur, and no nesting birds are disturbed. If any violation were to occur, it would be staff's responsibility to report such a violation within 24 hours of the incident. The trainings cover the importance of reporting violations immediately.

LETTER 2

LINDA S. ADAMS
SECRETARY FOR
ENVIRONMENTAL PROTECTION

CALIFORNIA INTEGRATED
WASTE MANAGEMENT BOARD

ARNOLD SCHWARZENEGGER
GOVERNOR

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2-1

INTEGRATED WASTE MANAGEMENT BOARD

June 29, 2007

Ms Marilyn Mirrasoul, Associate Planner
City of San Diego
Land Development Review
Development Services
11222 First Avenue, MS 501
San Diego CA 92101-4155

RECEIVED
JUN 2 2 2007
STATE CLEARING HOUSE

Subject: **SCH No. 2006051004** – Draft Environmental Impact Report for the vertical expansion of West Miramar Sanitary Landfill, Solid Waste Facilities Permit (SWFP) No. 37-AA-0020, San Diego County

Dear Ms Mirrasoul:

Thank you for allowing the California Integrated Waste Management Board's (Board) staff to provide comments for this proposed project and for your agency's consideration of these comments as part of the California Environmental Quality Act (CEQA) process.

Board staff has reviewed the environmental document cited above and offers the following project description, analysis and our recommendations for the proposed project based on our understanding of the project. If the Board's project description varies substantially from the project as understood by the Lead Agency, Board staff requests incorporation of any significant differences in the Final Environmental Impact Report.

Proposed Project Description

The City of San Diego, Development Services Department acting as Lead Agency is proposing a Solid Waste Facilities Permit revision to allow a 15-foot vertical increase in the height, from 470 feet above mean sea level to 485 feet above mean sea level, on the 239 acre Phase I and a 20-foot vertical increase in height, from 465 feet above mean sea level to 485 feet above mean sea level, on the 238 acre

RESPONSE TO COMMENT LETTER FROM CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD, SIGNED BY RAYMOND M. SEAMANS, DATED JUNE 29, 2007

Response to Comment 2-1:

The first part of this letter summarizes the proposed project. This information is acknowledged.

2-1 (cont'd.)

Phase II of the existing West Miramar Sanitary Landfill and to correct the permitted disposal footprint area to accurately reflect the actual size of the disposal footprint from a total of 470 acres to 476.34 acres.. The vertical expansion will increase permitted airspace volume from 75.2 million cubic yards to 87.8 million cubic yards and extend the landfill life from 2011 to 2016. The landfill is located at 5180 Convoy Street on an area leased from the Marine Corps Air Station Miramar. No other changes to the existing landfill operations are proposed. The project would require modification to the lease with the Department of Defense to allow the increase in elevation.

Current and Proposed Entitlements

	Existing 2001 Permit	Proposed Change(s)
Permitted Area (in acres)	807 acres	
Disposal Footprint	470 acres	476.34 acres[1]
Maximum Elevation	470 feet above MSL	485 feet above MSL
Permitted Capacity	56.5 million cubic yards	76.5 million cubic yards
Estimated Closure Date	2011	2016
Peak Daily Tonnage	8,000 tons per day	
Peak Annual Tonnage	1.4 MM tons annually	
Peak Vehicle Count	2000	

1 – Increase in acreage is a result of more accurate surveying of the site – there is no increase in the disposal footprint

There are no new areas of significant impacts to health, safety and the environment.

BOARD STAFF'S COMMENTS

2-2 Since this proposed project is limited in scope and there are no new significant impacts identified Board staff has no questions or comments to make at this time. *By the environmental document not specifically prohibiting an action or activity that does not give tacit approval to perform that action or activity.*

SUMMARY

The Board staff thanks the Lead Agency for the opportunity to review and comment on the Draft Environmental Impact Report and hopes that this comment letter will be useful to the Lead Agency in carrying out their responsibilities in the CEQA process.

RESPONSE TO COMMENT LETTER FROM CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD, SIGNED BY RAYMOND M. SEAMANS, DATED JUNE 29, 2007 (cont'd.)

Response to Comment 2-2:

Comments acknowledged. No issues regarding the adequacy of the Draft EIR were identified.

2-3

The Board staff requests copies of any subsequent environmental documents including, the Final Environmental Impact Report, the Report of Facility Information/Joint Technical Document, any Statement of Overriding Considerations, copies of public notices, and any Notices of Determination for this project.

Please refer to 14 CCR, § 15094(d) that states: "If the project requires discretionary approval from any state agency, the local lead agency shall also, within five working days of this approval, file a copy of the notice of determination with the Office of Planning and Research [State Clearinghouse]."

The Board staff requests that the Lead Agency provide a copy of its responses to the Board's comments at least ten days before certifying the Final Environmental Impact Report. Refer to PRC § 21092.5(a).

If the document is certified during a public hearing, Board staff request ten days advance notice of this hearing. If the document is certified without a public hearing, Board staff requests ten days advance notification of the date of the certification and project approval by the decision-making body.

If you have any questions regarding these comments, please contact me at 916.341.6728 or email at rseamans@ciwmb.ca.gov.

Sincerely,

Raymond M. Seamans
Permitting and Inspection Branch, Region 4
Environmental Review
Permitting and Enforcement Division
California Integrated Waste Management Board

cc: Tadese Gebre-Hawariat
Permitting and Inspection Branch, Region 4
Permitting and Enforcement Division
California Integrated Waste Management Board

Zane Poulson, Supervisor
Permitting and Inspection Branch, Region 4
Permitting and Enforcement Division
California Integrated Waste Management Board

U:\Allstaff\CEQA\2007 DOCS\CITIES\San Diego - City\COMMENT LETTERS\DEIR Miramar Landfill Vert Exp 37-AA-0020 6-29.doc

RESPONSE TO COMMENT LETTER FROM CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD, SIGNED BY RAYMOND M. SEAMANS, DATED JUNE 29, 2007 (cont'd.)

Response to Comment 2-3:

The City of San Diego will provide copies of the referenced documents to the Board as requested.

Bill Prinz, Acting Program Manager
County of San Diego, Development Services Department
1010 Second Avenue, Suite 6000
San Diego, CA 92101-4998

LETTER 3

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

July 3, 2007

Marilyn Mirrasoul
City of San Diego
202 C Street
San Diego, CA 92101

Subject: Miramar Landfill Height Increase
SCH#: 2006051004

Dear Marilyn Mirrasoul:

3-1

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on July 2, 2007, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

RESPONSE TO COMMENT LETTER FROM STATE OF CALIFORNIA GOVERNOR'S OFFICE OF PLANNING AND RESEARCH STATE CLEARINGHOUSE AND PLANNING UNIT, SIGNED BY SCOTT MORGAN, DATED MAY 24, 2007

Response to Comment 3-1:

Comment acknowledged. No issues regarding the adequacy of the Draft EIR were identified.

Document Details Report
State Clearinghouse Data Base

SCH# 2006051004
Project Title Miramar Landfill Height Increase
Lead Agency San Diego, City of

Type EIR Draft EIR

Description The project would allow for a modification to the existing Solid Waste Facility Permit and lease with the Department of Defense to allow for the increase in the permitted height of the existing West Miramar Landfill from 470 feet above mean sea level (amsl) in the 239-acre Phase I area to 485 feet amsl, and from 465 feet amsl in the 238-acre Phase II area to 485 feet amsl.

Lead Agency Contact

Name Marilyn Mirrasoul
Agency City of San Diego
Phone (619) 446-5380 *Fax*
email
Address 202 C Street
City San Diego *State* CA *Zip* 92101

Project Location

County San Diego
City San Diego
Region
Cross Streets Highway 52 and Convoy Street
Parcel No. 349-01-03; 349-02-03, 02; 349-03-01
Township *Range* *Section* *Base*

Proximity to:

Highways 805, 52
Airports
Railways
Waterways
Schools
Land Use Existing landfill site is governed by a CUP and lease with the Department of Defense. The project site is zoned AR-1-1.

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Geologic/Seismic; Growth Inducing; Minerals; Noise; Other Issues; Public Services; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 9; Department of Parks and Recreation; Native American Heritage Commission; Integrated Waste Management Board; Department of Health Services; Department of Fish and Game, Region 4; Department of Water Resources; California Coastal Commission; California Highway Patrol; Caltrans, District 11; Air Resources Board, Major Industrial Projects; Department of Toxic Substances Control; State Water Resources Control Board, Division of Water Quality; State Lands Commission

Date Received 05/17/2007 *Start of Review* 05/17/2007 *End of Review* 07/02/2007

Note: Blanks in data fields result from insufficient information provided by lead agency.

LETTER 4

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
www.nahc.ca.gov
ds_nahc@pacbell.net

May 24, 2007

Ms. Marilyn Mirrasoul
City of San Diego
202 "C" Street
San Diego, CA 92101

4-1

Re: SCH# 2005051004; CEQA Notice of Preparation (NOP) draft Environmental Impact Report (DEIR) for Miramar Landfill Height Increase Project; City of San Diego; San Diego County

Dear Ms. Mirrasoul:

Thank you for the opportunity to comment on the above-referenced document. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR per CEQA guidelines § 15064.5(b)(c). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE),' and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS). Contact information for the 'Information Center' nearest you is available from the State Office of Historic Preservation in Sacramento (916/653-7278). The record search will determine:

- If a part or the entire (APE) has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ Contact the Native American Heritage Commission (NAHC) for:

- A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity who may have information on cultural resources in or near the APE. Please provide us site identification as follows: USGS 7.5-minute quadrangle citation with name, township, range and section. This will assist us with the SLF.
- Also, we recommend that you contact the Native American contacts on the attached list to get their input on the effect of potential project (e.g. APE) impact.

√ Lack of surface evidence of archeological resources does not preclude their subsurface existence.

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

RESPONSE TO COMMENT LETTER FROM NATIVE AMERICAN HERITAGE COMMISSION, SIGNED BY DAVE SINGLETON, DATED MAY 24, 2007

Response to Comment 4-1:

As described in the Draft EIR, the project site is an existing solid waste landfill, and would result in no disturbance of previously undisturbed land. Approval of the project would allow a height increase of a maximum of fifteen to twenty feet. As described in the Draft EIR, the project will have no impacts to any archaeological resources and/or Native American sacred sites. This letter explains the steps that are necessary when projects might have such an impact.

4-1
(cont'd.)

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

* CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

√ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

√ Lead agencies should consider avoidance, as defined in § 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: List of Native American Contacts

Native American Contacts
San Diego County
May 24, 2007

Ewiiaapaayp Tribal Office
Harlan Pinto, Sr., Chairperson
PO Box 2250 Kumeyaay
Alpine , CA 91903-2250
wmicklin@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Campo Kumeyaay Nation
H. Paul Cuero, Jr., Chairperson
36190 Church Road, Suite 1 Kumeyaay
Campo , CA 91906
chairgoff@aol.com
(619) 478-9046
(619) 478-5818 Fax

Manzanita Band of Kumeyaay Nation
Leroy J. Elliott, Chairperson
PO Box 1302 Kumeyaay
Boulevard , CA 91905
(619) 766-4930
(619) 766-4957 Fax

Jamul Indian Village
Leon Acebedo, Chairperson
P.O. Box 612 Diegueno/Kumeyaay
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785
(619) 669-48178 - Fax

San Pasqual Band of Mission Indians
Allen E. Lawson, Chairperson
PO Box 365 Diegueno
Valley Center , CA 92082
(760) 749-3200
(760) 749-3876 Fax

Mesa Grande Band of Mission Indians
Mark Romero, Chairperson
P.O Box 270 Diegueno
Santa Ysabel , CA 92070
mesagrandeband@msn.com
(760) 782-3818
(760) 782-9092 Fax

Viejas Band of Mission Indians
Bobby L. Barrett, Chairperson
PO Box 908 Diegueno/Kumeyaay
Alpine , CA 91903
daguilar@viejas-nsn.gov
(619) 445-3810
(619) 445-5337 Fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775 Diegueno -
Pine Valley , CA 91962
(619) 709-4207

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed SCH#2005051004; CEQA Notice of Preparation (NOP) for Miramar Landfill Height Increase draft Environmental Impact Report (DEIR); City of San Diego; San Diego County, California.

Native American Contacts
San Diego County
May 24, 2007

Inaja Band of Mission Indians
Rebecca Osuna, Spokesperson
309 S. Maple Street Diegueno
Escondido , CA 92025
inaja_cosmite@hotmail.com
(760) 737-7628
(760) 747-8568 Fax

Sycuan Band of the Kumeyaay Nation
Sydney Morris, Environmental Coordinator
5459 Sycuan Road Diegueno/Kumeyaay
El Cajon , CA 92021
(619) 445-2613
(619) 445-1927-Fax

Kumeyaay Cultural Repatriation Committee
Steve Banegas, Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
(619) 443-6612
(619) 443-0681 FAX

Santa Ysabel Band of Diegueno Indians
Devon Reed Lomayesva, Esq, Tribal Attorney
PO Box 701 Diegueno
Santa Ysabel , CA 92070
drlomayevsa@verizon.net
(760) 765-0845
(760) 765-0320 Fax

Clint Linton
P.O. Box 507 Diegueno/Kumeyaay
Santa Ysabel , CA 92070
(760) 803-5694
cjlinton73@aol.com

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed SCH#2005051004; CEQA Notice of Preparation (NOP) for Miramar Landfill Height Increase draft Environmental Impact Report (DEIR); City of San Diego; San Diego County, California.

Final Environmental Impact Report (EIR)

Miramar Landfill Service Life Extension/Height Increase

At MCAS Miramar, County of San Diego, California

Project No. 122833
SCH No. 2006051004

City of San Diego: Lead Agency

MCAS Miramar: Cooperating Agency

July 2007

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EXECUTIVE SUMMARY

Introduction

This Draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR) was prepared in compliance with the requirements of the California Environmental Quality Act (CEQA) of 1970 (PRC Section 21000 *et seq*.), as amended, including the Guidelines for Implementation of CEQA (14 CCR Section 15000 *et seq*.). This DEIS/DEIR will also serve as a Draft Environmental Impact Statement (DEIS) for the Department of Navy (DoN), Marine Corps Air Station Miramar (MCAS), in their preparation of the Final EIS and therefore complies with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321 *et seq*.), including the Council on Environmental Quality (CEQ) NEPA Regulations (40 CFR Parts 1500-1508). This document also satisfies the requirements of the Department of the Navy (DoN), Procedures for Implementing NEPA (32 CFR, Part 775); Marine Corps Order P5090.2A; DoN Environmental and Natural Resources Program Manual (OPNAVINST 5090.1A, October 2, 1990); City of San Diego Municipal Code, Sections 69.0101-69.0110 and Sections 128.0101-128.0314; City of San Diego Technical Report and Environmental Impact Report Guidelines (September 2002, updated December 2005); and City of San Diego Development Services Department's Significance Determination Thresholds, August 2006.

The certification of the EIR may potentially precede the completion of review of the EIS, and thus the final versions may differ slightly in format and content. However, this document will nonetheless serve its function of informing the public and government agencies of all potential impacts associated with the Proposed Project prior to government agencies making decisions regarding approval of the Proposed Project.

CEQA applies to projects proposed to be undertaken or requiring approval by state and local government agencies (i.e., discretionary actions). The CEQA process is primarily designed to identify and disclose significant environmental impacts of a project and is accomplished by conducting an environmental review of the project. The EIR must comply with CEQA, as amended, and the Guidelines for Implementation of CEQA, and all other applicable laws and regulations. NEPA requires federal agencies to incorporate environmental considerations in their planning and decision-making process by preparing an EIS to determine the potential impacts of a proposed action. This requirement applies to all actions authorized, funded, or carried out by a federal agency. The EIS must comply with NEPA, and related requirements, including the CEQ Regulations.

This DEIS/DEIR analyzes the potential environmental impacts associated with the proposed action, which is a maximum 20-foot increase in elevation of the active portion of the Miramar Landfill, with no other change. No horizontal expansion is proposed. No change in daily throughput is proposed. No changes in operations other than those necessary to accommodate the vertical expansion are proposed.

Consistent with the purposes of NEPA and CEQA, and with City, County, and SANDAG planning documents that emphasize extending the life of existing disposal facilities, the objective

of the Proposed Project is to increase the capacity and thereby extend the operation of an existing, conveniently-located, environmentally-focused site for disposal of municipal solid waste, provided this increase is consistent with the primary mission of the landowner, MCAS. In pursuing the Proposed Project, it is the objective of the City to provide cost-effective, environmentally-sound disposal options for those residual materials that remain after all appropriate methods of waste reduction, recycling, composting, and/or conversion have been employed.

The City operates the landfill under a lease with the Department of Navy, administered by MCAS Miramar. Operation of the facility requires a Solid Waste Facility Permit, which is issued by the City's Local Enforcement Agency that reports to the California Integrated Waste Management Board. A City of San Diego Site Development Permit would be required to implement the proposed height increase. The potential for modification to the operations and regulatory programs is discussed in Section 4.1. The Air Pollution Control Board and California Water Board impose additional requirements on landfill operations. The following is a summary of the federal, state, and local administrative actions that will be required as a result of the Proposed Project:

- Lease Amendment –MCAS Miramar;
- Lease Amendment and issuance of a Site Development Permit (SDP) – City of San Diego;
- Revision of the Solid Waste Facility Permit (SWFP) – City of San Diego Local Enforcement Agency (LEA), with concurrence by the California Integrated Waste Management Board (CIWMB);
- Waste Discharge Requirements – Regional Water Quality Control Board (RWQCB), San Diego Region; and an
- Air Quality Permit – San Diego Air Pollution Control District.

State of California regulations for solid waste (California PRC § 41700 - 41721.5) require that each region have a plan to provide at least fifteen years of disposal capacity. The solid waste plan for the San Diego County region is contained in the Integrated Waste Management Plan, Countywide Siting Element, December 2004. The plan shows that unless a new landfill is opened and/or existing landfills are expanded, the region has insufficient disposal capacity. Plan policies 2.1 and 2.2 encourage the efficient use of existing disposal sites, and extension or expansion of in-county capacity. The San Diego Association of Government's July 2004 Regional Comprehensive Plan Chapter 4F provides similar language regarding "maximizing existing disposal capacity."

The Clean Air Act prohibits federal agencies from engaging in any action that would cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS); increase the frequency or severity of an existing violation; or delay the timely attainment of a standard. The U.S. Environmental Protection Agency promulgated the General Conformity Rule in 1993 to

meet this Clean Air Act requirement. The Proposed Project is subject to the General Conformity Rule, since it is an activity engaged in by the Marine Corps Air Station Miramar. However, the Proposed Project falls under an exemption outlined in the rule. Specifically, the additional emissions generated from the landfill due to the proposed height increase would be subject to New Source Review (NSR) permitting. Federal actions that require a permit under NSR are not required to perform a conformity determination, since the NSR permitting process ensures that the proposed action does not adversely affect progress towards meeting the NAAQS. Furthermore, since the Proposed Project does not expand the horizontal footprint of the landfill or increase the daily or annual rate of waste disposal, there are no vehicular emissions or emissions from construction equipment associated with the Proposed Project that would trigger a conformity applicability determination. As such, the Proposed Project is exempt from General Conformity Rule requirements.

Alternative Analysis

Pursuant to the Guidelines for Implementation of CEQA (Section 15126.6), the Environmental Impact Report (EIR) must contain a consideration of alternatives that can attain most of the basic objectives of the project and would avoid or substantially reduce significant environmental effects of the project. Alternatives to be considered in this manner should be reasonable and feasible.

NEPA requires that an EIS describe a range of reasonable alternatives to a project, or to the location of a project, that could feasibly attain most of the basic goals of the project but would avoid or substantially lessen any significant environmental impacts while substantially attaining the basic goals of the project. Alternatives for an EIS may take the form of no project, no federal action, reduced project size, different project design, or suitable alternative project sites. Alternatives discussed in an EIS must only be within a reasonable range and an EIS need not consider an alternative that would be infeasible.

A matrix has been prepared to facilitate comparisons between the alternatives:

Comparison of Alternatives

ALTERNATIVE	DIRECT IMPACTS	INDIRECT IMPACTS	CUMULATIVE IMPACTS	MITIGATION MEASURES
No Project	No change from existing conditions.	Closure in 2012 would result in air/public facility impacts associated with vehicle emissions from transportation to more distant location, and difficulty identifying a suitable location.	No change from existing conditions.	AIR QUALITY: Measures such as watering, use of soil stabilizers, and exhaust emission controls have been required. LANDFORM ALTERATION: Revegetation per Closure Plan.
Proposed Project (Includes No Project mitigation measures as part of project design.)	Less than significant increase in visibility.	Closure in 2016 would delay transportation to more distant location, resulting in a net benefit.	The slightly greater visibility of the landfill may be REDUCED by some potential projects, but in no case would it contribute to cumulatively significant impacts.	Measures incorporated into the project design would ensure no significant impacts. These measures are required and enforced by regulatory agencies.
Reduced Project (Includes No Project mitigation measures as part of project design.)	Adverse increase in visibility would be reduced.	Closure prior to 2016 would hasten transportation to more distant location, resulting in less benefit than the Proposed Project	The slightly greater visibility of the landfill may be REDUCED by some potential projects, but in no case would it contribute to cumulatively significant impacts.	Measures incorporated into the project design would ensure no significant impacts. These measures are required and enforced by regulatory agencies.

Source: City of San Diego, ESD, 2007.

This matrix includes impacts of the Proposed Project, and includes any mitigation measures that may be associated with the various alternatives. The No Project and Reduced Project alternatives have reduced visual effects as compared with the Proposed Project, but they do not fulfill the purpose of the project to extend the life of the landfill, and do not eliminate any significant impacts.

The maximum 20-foot higher landform created by the proposed expansion would be expected to remain in perpetuity, and the land underneath would not be available for other potential structures, though the surface of the landfill could support non-structural activities after closure. The additional height of the landfill would be visible from some viewpoints offsite; however, once completed, the landfill would be landscaped with native vegetation to minimize visual contrast. Implementation of the Proposed Project would not cause significant changes to the visual character of the area. No other unavoidable adverse environmental impacts are anticipated to be significant as a result of the Proposed Project. It is not expected that the Proposed Project will be environmentally controversial.

Scoping Process:

Pursuant to Section 15082(c)(1) of the CEQA and Marine Corps Order (MCO) P5090.2A, a public scoping process is required. The MCO specifies which input from affected federal, state, and local agencies, any Native American tribe, minority and low-income populations, and other interested persons must be solicited. A public scoping meeting was held on May 10, 2006 to get additional input from the public on potential issue areas. The distribution included:

Federal Government
U.S. Marine Corps (3)
Commanding General, MCAS Miramar Air Station (13)
U.S. EPA
U.S. Fish and Wildlife Service (23)
U.S.D.A. Natural Resources Conservation SRVS (25)
Dept. of Interior, Environmental Policy and Compliance

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CA Department of Fish and Game (Sacramento office)
California Integrated Waste Management Board (35)
California EPA (37A)
Resources Agency (43)
CA Regional Water Quality Control Board (44)
State Clearinghouse (46)
California Air Resources Board (49)
Water Resources Control Board
California Transportation Commission, Quality Advisory Committee

County Government
Air Pollution Control District (65)
Department of Public Works (70)
Dept. of Environmental Health (75)

City of San Diego
Mayor Sanders, MS 11A
Council President Peters, MS 10A
Councilmember Faulconer, MS 10A
Council Atkins, MS 10A
Council President Pro Tem Young, MS 10A
Councilmember Maienschein, MS 10A
Councilmember Frye, MS 10A
Councilmember Madaffer, MS 10A
Councilmember Hueso, MS 10A
Environmental Services, Lisa Wood (MS 1102A)

LDR EAS, Marilyn Mirrasoul
LDR Planning, Ismael Lopez
LDR Landscaping, Craig Hooker
LDR Transportation, Jim Lundquist
Transportation Development (78)
San Diego Fire Department, Sam Oates (MS 603)
San Diego Police Department, Jerry Hara (MS 711)
Geology, Pat Thomas (MS 401)
Long Range Planning, Maxx Stalheim (MS 4A)
Water Department, Chris Gascon (MS 910D)
LEA, Bill Prinz (MS 606L)
MWWD, Alejandro Ruiz (MS 22)
Bob Ferrier (80)
University Community Branch Library (81JJ)
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League of Women Voters (192)
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Clairemont Chamber of Commerce (249)
Clairemont Town Council (257)
Kearny Mesa Town Council (263)
Kearny Mesa Community Planning Group (265)
Marian Bear Recreation Council (267A)
Mira Mesa Community Planning Group (310)
Tierrasanta Community Council (462)
University City Community Planning Group (480)
University City Community Association (486)
BRG Consultants
San Diego Landfill Systems, Neil Mohr
United Veterans Council, Chairman Joe Brunner

Native Americans
Campo Band of Mission Indians
Cuyapaipe Band of Mission Indians
Inaja and Cosmit Band of Mission Indians
Jamul Band of Mission Indians
La Posta Band of Mission Indians
General Council, Chairperson
Mesa Grande Band of Mission Indians
San Pasqual Band of Mission Indians
Santa Ysabel Band of Mission Indians
Sycuan Band of Dieguena Mission Indians
Viejas Band of Mission Indians

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LIST OF ACRONYMS

ALUCP - Airport Land Use Compatibility Plan
AICUZ - Air Installation Compatibility Use Zone
AMSL - Above Mean Sea Level
AQIA - Air Quality Impact Analysis
BACT - Best Available Control Technology
BMP - Best Management Practice
C&D - Construction and Demolition Debris
CCR - California Code of Regulations
CDFG - California Department of Fish and Game
CEQ - Council on Environmental Quality
CEQA - California Environmental Quality Act
CFR - Code of Federal Regulations
CIWMB - California Integrated Waste Management Board
CO - Carbon Monoxide
CNEL - Community Noise Equivalent Level
CSS - Coastal Sage Scrub
dB - Decibel
dBA - Decibel (Weighted for the Human Ear)
DoD - Department of Defense
DoN - Department of Navy
DSD - Development Services Department (of the City of San Diego)
EA - Environmental Assessment
EAS - Environmental Analysis Section (of the City of San Diego, DSD)
EIR - Environmental Impact Report
EIS - Environmental Impact Statement
EO - Executive Order
EMS - Environmental Management System
EPA - Environmental Protection Agency (of the United States)
ESD - Environmental Services Department (of the City of San Diego)
FEMA - Federal Emergency Management Agency
FIRM - Flood Insurance Rate Map
GDP - General Development Plan
GHG - Greenhouse Gas
HIA - Hazard Index (Acute)
HIC - Hazard Index (Chronic)
Hr - Hour
INRMP - Integrated Natural Resources Management Plan
JTD - Joint Technical Document
KOP - Key Observation Point
L_{d-n} Acceptable Day-Night Average Exterior Sound Levels
LEA - Local Enforcement Agency

L_{eq} - Equivalent Sound Level
LFG - Landfill Gas
m^3 - Cubic Meters
MCAS - Marine Corp Air Station
MCO - Marine Corps Order
mcy - Million Cubic Yards
MEIR - Master Environmental Impact Report
MHPA - Multiple Habitat Planning Area
MICR - Maximum Individual Cancer Risk
MSCP - Multiple Species Conservation Program
MRF - Materials Recovery Facility
MSW - Municipal Solid Waste
NAS - Naval Air Station
NEPA - National Environmental Policy Act
NHPA - National Historic Preservation Act
NO_x - Various Nitrous Oxides
NO_2 - Nitrogen Dioxide
NSPS - New Source Performance Standards
NPDES - National Pollutant Discharge Elimination System
NSR - New Source Review
O_3 - Ozone
OSHA - Occupational Safety and Health Administration (United States)
Pb - Lead
PCPCMP - Preliminary Closure/Post Closure Management Plan
PEIS - Programmatic Environmental Impact Statement
PEL - Permissible Exposure Limits
$PM_{2.5}$ - Particulate Matter Smaller than 2.5 µg (Microgram)
PM10 - Particulate Matter Smaller than 10µg (Microgram)
PPM - Parts per Million
PPHM - Parts per Hundred Million
PRC - Public Resources Code
PTE - Potential to Emit
RCRA - Resource Conservation Recovery Act
RONA - Record of Non-Applicability
RWQCB - Regional Water Quality Control Board
SANDAG - San Diego Association of Governments
scfm - Standard cubic feet per minute
SDAB - San Diego Air Basin
SDAPCD - San Diego Air Pollution Control District
SHPO - State Historic Preservation Office
SO_2 - Sulfur Dioxide
SR - State Route
SWFP - Solid Waste Facility Permit

SWPPP - Storm Water Pollution Prevention Plan
TAC - Toxic Air Contaminant
UCSD - University of California, San Diego
USC - United States Code
USMC - United States Marine Corps
USFWS - U.S. Fish and Wildlife Service
UW - Universal Waste
VOC - Volatile Organic Compound
WML - West Miramar Landfill
§ - Section

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1.0 PURPOSE AND NEED OF THE PROPOSED PROJECT

The Proposed Project is a maximum 20-foot increase in elevation of the active portion of the Miramar Landfill, with no other change. No horizontal expansion is proposed. No change in daily throughput is proposed. No changes in operations other than those necessary to accommodate the vertical expansion are proposed.

The California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code, Division 13, §21000), as amended, states that:

- "the maintenance of a quality environment for the people of this state now and in the future is a matter of statewide concern;"
- "The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution;" and
- "It is the intent of the Legislature that all agencies of the state government that regulate activities of private individuals, corporations, and public agencies that are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian."

State of California regulations for solid waste (California PRC § 41700 - 41721.5) require that each region have a plan with adequate capacity to manage or dispose of solid waste for at least fifteen years into the future. The solid waste plan for the San Diego County region is contained in the Integrated Waste Management Plan, Countywide Siting Element, December 2004. The plan shows that unless a new landfill is opened and/or existing landfills are expanded, the region has insufficient disposal capacity. Plan policies 2.1 and 2.2 encourage the efficient use of existing disposal sites, and extension or expansion of in-county capacity. The San Diego Association of Government's July, 2004 Regional Comprehensive Plan Chapter 4F provides similar language regarding "maximizing existing disposal capacity."

Two purposes of the National Environmental Policy Act (NEPA) of 1969 (42 USC § 4321) are

- "to declare a national policy which will encourage productive and enjoyable harmony between man and his environment" and
- "to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man."

Consistent with the purposes of NEPA and CEQA, and with City of San Diego, County of San Diego, and SANDAG planning documents all of which emphasize extending the life of existing disposal facilities, the objective of the Proposed Project is to increase the capacity and thereby extend the operation of an existing, conveniently-located, environmentally-focused site for

disposal of municipal solid waste, provided this increase is consistent with the primary mission of the landlord, Marine Corps Air Station Miramar (MCAS). In pursuing the Proposed Project, it is the objective of the City of San Diego (City) to provide cost-effective, environmentally-sound disposal options for those residual materials that remain after all appropriate methods of waste reduction, recycling, composting, and/or conversion have been employed.

The City operates the landfill under a lease with the Department of Navy, administered by MCAS Miramar. Operation of the facility requires a Solid Waste Facility Permit, which is issued by the City's Local Enforcement Agency, which reports to the California Integrated Waste Management Board. A City of San Diego Site Development Permit would be required to implement the proposed height increase. The potential for modification to the operations and regulatory programs is discussed in Section 4.1. The Air Pollution Control Board and California Water Board impose additional requirements on landfill operations.

Other existing components within the City's leasehold include a recyclable materials collection point, a household hazardous waste collection point, gas use and energy generation, native plant nursery, and composting operations. South Miramar Landfill was the first landfill operated by the City on the military base. Parts of it now underlie Highway 52. North Miramar was the next area to be filled and is currently inactive. These two older landfills are within the City's leasehold, but there is no active permit for disposal operations in these areas. The Proposed Project would involve only the footprint of West Miramar, the existing, active landfill, currently operating under Solid Waste Facility Permit issued by the Local Enforcement Agency.

The City of San Diego's Environmental Services Department (ESD) operates the landfill and also provides other solid waste management services throughout the City. For example, it provides collection and recycling services. ESD also regulates private haulers and facility operators via franchises.

1.1 Purpose and Need for the Proposed Project

Safe handling of refuse in a manner that protects water and air resources, and prevents the proliferation of disease vectors such as flies and mosquitoes, is essential in order to protect public health and safety. The purpose of landfills is to prevent exposure to air contamination from uncontrolled burning of refuse, and air and water contamination from open dumps. Although there have been improvements in waste diversion technologies and programs, there is still a need for safe disposal options for residual materials. The purpose of the Proposed Project is to provide for this need by maximizing the life of an existing facility in accordance with planning documents, while assuring that the facility remains consistent with the national defense purpose of Marine Corps Air Station Miramar (MCAS).

The Miramar Landfill has served much of the City of San Diego's municipal solid waste disposal needs for more than five decades. This centrally-located facility, bordered by three freeways,

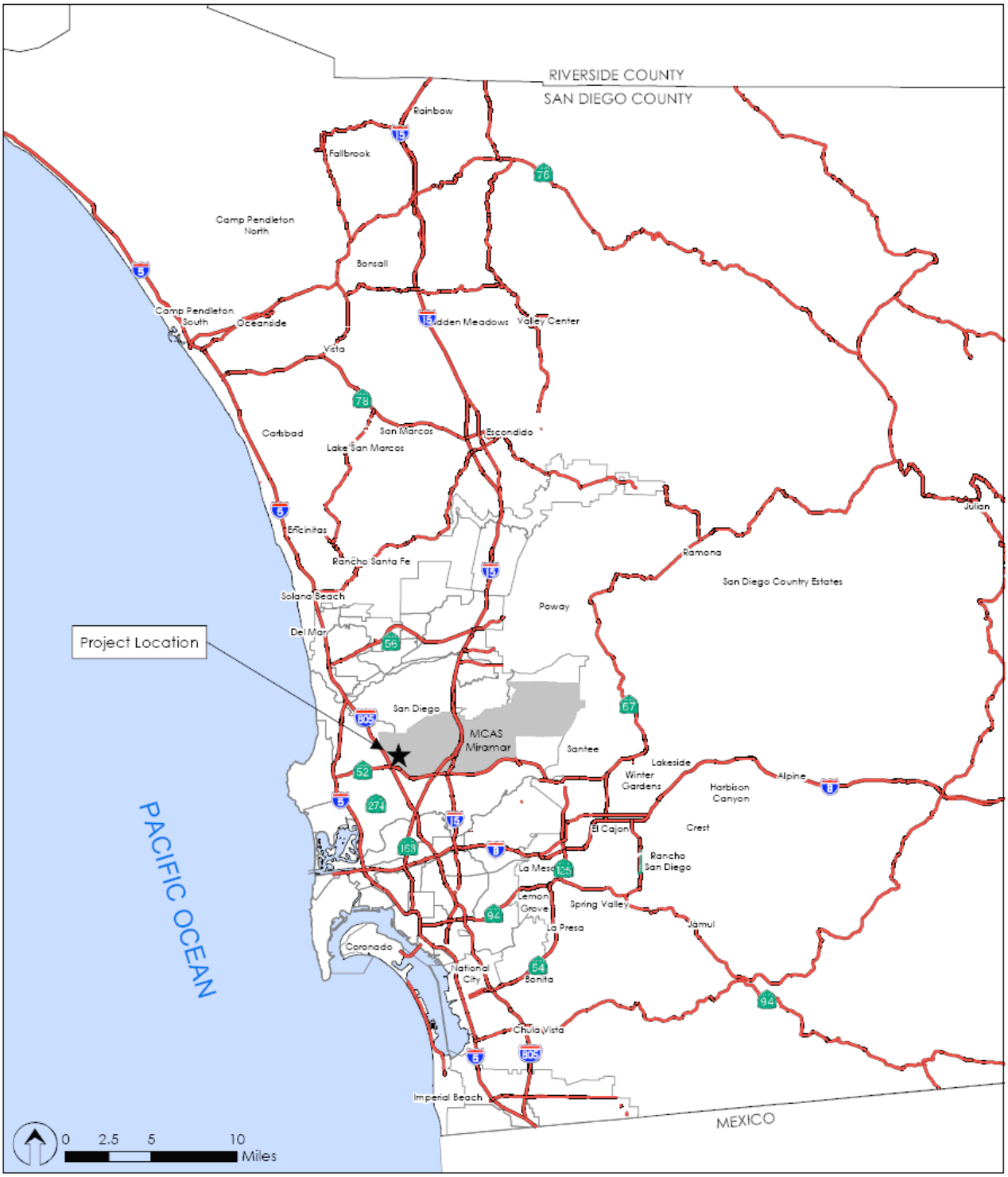
has changed in nature over the years from a facility focused only on disposal, to a resource recovery-oriented suite of operations that includes disposal of residual materials as one of its components. Other components include: a recyclable materials collection point, a household hazardous waste collection point, gas use and energy generation, native plant nursery, and composting operations. Figure 1 depicts the location of the Proposed Project in a regional perspective.

Two other landfills, Allied Waste's Sycamore Landfill and Otay Landfill, provide disposal capacity within the urbanized region. The Sycamore Landfill is located to the east of Miramar within the City's boundaries. The Otay Landfill is located within an unincorporated island within the City of Chula Vista. The Sycamore Landfill has been proposed for expansion. As proposed, this expansion would be more extensive than the expansion proposed for the Miramar Landfill and would make many modifications to the facility, including greatly increasing the through-put volumes.

Disposal operations at Miramar are as environmentally sound as possible. It is the first municipal International Organization for Standardization (ISO) 14001-certified disposal facility dedicated to continual improvement under this internationally-recognized Environmental Management System. (ISO standards are developed by a federation of 157 countries with a broad range of stakeholders. They are designed to promote sustainability, transparency, and good managerial and organizational practices.) One of the goals of the Environmental Management System developed for Miramar Landfill pursuant to its ISO certification is to maximize the capacity of the facility, thereby reducing the extent of land necessary for disposal purposes. This is consistent with the general environmental goal of maximizing the useful life of existing facilities.

One perspective with regard to landfills and certain other public service facilities is that visibility provides educational benefits. For example, the June 5, 2006 issue of Waste News explains that the fact that Anderson Elementary School students in Sand Springs Oklahoma can see the American Environmental Landfill from the front of their school provides educational benefits that result in better solid waste practices. The landfill and the school partner on recycling programs, and the visibility of the landfill provides a teaching point. Other landfills, such as the Puente Hills Landfill, in Los Angeles, has provided a visible, but heavily landscaped, "Disneyland of Landfills" that is also used as a teaching facility. While views of the Miramar Landfill are more limited than those of the landfills mentioned above, opportunities for public education are currently exploited, primarily through frequent landfill tours.

Figure 1 - Regional Location Map



SOURCE: SANDAG and BRG Consulting, Inc., 2005 03/16/07

	Miramar Landfill EIR/EIS Regional Vicinity Map	FIGURE 1

The primary focus of the City of San Diego's solid waste management planning is on preventing materials from entering the waste stream through citywide source reduction, recycling and composting programs. This emphasis is consistent with the federal law under the Resource Conservation and Recovery Act (RCRA), subtitle D, and the State of California's Integrated Waste Management Act. These waste reduction programs are detailed in the City's Source Reduction and Recycling Element planning document, which is updated annually. The purpose of these waste reduction, recycling, and composting programs is to reduce the environmental impacts associated with the use of virgin materials in manufacturing processes, and also to preserve capacity in the landfill.

The City operates the landfill under a lease with the Department of Navy, administered by MCAS Miramar. Within the leasehold for landfill operations there are several waste reduction facilities that help provide infrastructure for the separation and transportation of materials for recycling. The General Development Plan (GDP) for the landfill provides a snapshot of planning for these facilities. In addition, disposal operations themselves are designed to maximize the capacity of the existing footprint of the Miramar Landfill, within the existing height limits imposed by the lease.

Several components of the disposal operations target increased capacity and extending the life of the facility. In advance of landfill operations at the West Miramar Landfill (WML), aggregate extraction operations ensured that valuable geological resources were not wasted, and also resulted in the development of a pit that increased the capacity of the site. Slopes are constructed at the steepest possible contours to provide additional capacity, within the limits of safety and integrity of pollution control systems. Additionally, various compaction techniques, including use of specialized equipment and surcharging of soils, are used. A fourth measure includes replacement of the daily dirt cover, a method that had been used for many years as a daily cover in accordance with federal regulations, with an alternative that takes up less capacity. Tarpaulins are now used to ensure that the refuse is properly covered at the end of each day, but these tarpaulins can be rolled out and rolled back. Since they are reused, they take up no space in the landfill. The solid waste facility permit limits the use of tarpaulins, so dirt is also used as cover but use of dirt is minimized. As much dirt as possible is scraped off at the start of each work day, to be used again as cover. A fifth measure includes a salvaging project at the face of the landfill, where loads rich in recyclable materials are identified and the materials collected for recycling. Finally, new techniques and technologies to improve efficiency are constantly evaluated.

In its efforts to investigate new technologies, the Local Enforcement Agency (LEA) and Regional Water Quality Control Board (RWQCB) approved a pilot steam injection project at the Miramar Landfill. The theory behind this and other "bioreactor" approaches is that the waste is wetted to speed decomposition, instead of the traditional approach of keeping the buried materials dry to prevent the formation of leachate, or liquid contamination, and methane). Additional controls such as double liners and additional monitoring are often required in order to prevent environmental contamination.

Bioreactors typically have three benefits. 1) The first benefit is faster and controllable gas recovery. Within certain parameters, the rate at which water is added determines the rate at which gas is generated and can be used to produce energy. The appropriate amount added depends on the specific characteristics of each fill, and is designed to maximize decomposition, but not to the point of combustion. 2) The second benefit is a shortened closure maintenance period. Speeding the decomposition process produces a mostly inert residual much more rapidly. 3) The third benefit is an increase in usable capacity. Rapid decomposition of the biodegradable portion of the waste stream can produce usable capacity faster than the dry-tomb landfilling technique prescribed under the Resource Conservation Recovery Act (RCRA), subtitle D.

The City will evaluate the results from this pilot project. Evaluation of bioreactor technology at Miramar may conclude that this approach does or does not increase the rate of settling. Other desirable effects of bioreactors, such as faster gas production and reduced closure period, may have limited benefit at this particular facility, given the nature of the gas extraction and energy production program, and considering that older portions of the landfill will be subject to prolonged closure maintenance anyway. Therefore, it is not a given that the evaluations will suggest that bioreactor technology is appropriate at Miramar. If, however, the analysis does point to benefits, expected increases in life span would be approximately one to two years. Therefore bioreactor technology would be in addition to, not instead of, the Proposed Project.

The City regularly evaluates its waste reduction and recycling program and makes annual changes, resulting in updates to the overall solid waste management program. All options are considered, including the current proposal to increase the height of the existing landfill. This solution will only provide a small gain in capacity, and additional solutions will be needed, some of them requiring lengthier permitting. For example, preliminary discussions have occurred with Marine Corps personnel about investigating landfill options in other areas on and near the MCAS property. An important part of long term planning is consideration of new technologies. Innovative technologies, including thermochemical conversion technologies, such as gasification and pyrolysis, have been used extensively in Japan. These technologies have higher electrical conversion efficiencies than traditional incineration. A technical analysis paid for by the State of California compared potential impacts and benefits of various solid waste management strategies including burial in a landfill, composting, recycling, and various conversion technologies. Depending on the waste stream, conversion technologies produce useful products, such as fuel and electricity. These processes require less water than bioreactors or composting, produce no water pollution, and are cleaner energy producers than coal.

Thermochemical conversion technologies are regulated by many of the same agencies that regulate solid waste management, and are also subject to energy regulations. They require advanced engineering and the development of complex infrastructure. Therefore, they are more capital intensive than other approaches to solid waste management. The planning horizon for permitting and development of such infrastructure is beyond the planning horizon for the Proposed Project. There are no current plans for a thermochemical conversion project, and even

with such technology, residue from recycling processes and conversion technologies still require safe disposal. Even the most aggressive recycling and conversion-based solid waste management programs still have a need to dispose of residual materials. Therefore, such general solid waste planning is in addition to, not in lieu of, the Proposed Project.

Although improvements are being made in the methods and technologies for reduction, reuse, recycling, composting, and processing of waste, environmental consequences have not been completely eliminated. Furthermore, environmental impacts are associated with product manufacture as well as with waste material processing and disposal. Therefore, California State law (PRC Section 40004 et. seq.) recognizes "source reduction" as the most environmentally-sound strategy in diverting materials from disposal. State law currently sets a target of 50% waste reduction. Although the City has achieved the 50 percent goal, additional measures, above and beyond what were originally described in the Source Reduction and Recycling Element, are being pursued as part of the City's commitment to continued improvement and fiscal and environmental stewardship.

ESD is currently pursuing options for the provision of a mixed construction and demolition (C&D) debris recycling facility. Study of the waste stream indicates that, despite existing private businesses that recycle many C&D components, much of this material continues to be buried in the landfill. Options being considered include development of policies and ordinances assisting private recycling efforts, and also potential public sector involvement in facility development. C&D recycling facilities typically are able to divert 50% or more of the material sorted and processed from disposal. The proposed mixed C&D Recycling facility would target unsorted materials that are currently not accepted at existing recycling facilities. This unsorted input would require equipment and handling to process, and would generate significant quantities of residual materials not suitable for recycling. It may be possible to accept residual materials for use at the landfill as alternative daily cover, if the material is appropriate and the measure is approved by the LEA.

Disposal needs in the San Diego area continue to grow despite a diversion rate in excess of 50% as compared to waste generation rates in 1990. This continued increase in the amount disposed, despite increasing diversion, is a result of population growth, and changes in the nature of the commercial, industrial, and residential sectors of the City. Disposal options have dwindled over that same time period. According to forecasts in the County of San Diego's Integrated Waste Management Plan and Siting Element, even if the region meets the state's target of 50% waste reduction, the region is expected to run out of landfill capacity in less than the state's prescribed 15-year planning horizon unless existing facilities are expanded, new facilities are sited, or unless waste is transported out of the region.

Environmental impacts are typically associated with all three of these alternatives. Transporting waste out of the region moves the impacts to other areas, but does not eliminate them. It requires development of transfer stations, and it adds costs and environmental impacts associated with handling and transportation. Siting new processing and disposal facilities is extremely costly and

time consuming, and cannot occur without environmental impacts. Increased waste reduction and recycling could postpone this eventuality, and the City plans to maximize diversion, but must also consider ways to maximize the life of the one disposal facility it operates. It is the goal of the San Diego Association of Governments' (SANDAG) Comprehensive Resource Management Plan, the County's Siting Element, and the proposed draft of the City's General Plan to make every effort to extend the life of existing disposal facilities.

The City expects that its emphasis on waste reduction and recycling will increase diversion rates; however, increasing waste diversion rates will not be able to keep up with increases in waste generation resulting from the increasing population and economic growth of the region. Therefore, no decline in acceptance rates of materials to be disposed at the Miramar Landfill is expected. It is assumed that recycling and waste diversion efforts will continue to improve and expand. In addition, the private sector operator of the Sycamore Landfill, located within the City of San Diego, modified its permit in July 2006 to dispose of an additional 665 tons per day. This operator is currently proposing to increase acceptance rates again, this time in excess, not just of what is generated within the current service area of the facility, but of the entire region. If this proposal is approved, throughput rates at the Miramar Landfill could decline, depending on pricing and fee structure. Additionally, two new private landfills are proposed, one in North County, the Gregory Canyon Landfill, and one in East County, the Campo Landfill. If approved, these facilities would also be expected to draw from the service areas of existing landfills, though potentially also from outside the region.

Until last year, approximately 25% of the material entering the Miramar Landfill was from outside the City. With recent shifts in fees, there has been a decline in the material entering the landfill, primarily as a result of a decline in this percentage, which was precipitated by fee changes that increased costs for wastes that originate outside the City. Thus, considering private sector proposals for disposal facilities, together with modifications to the fee structure at the landfill, the plans for the Miramar Landfill are neither to increase nor decrease its throughput rate, but rather to keep it at its current rate.

No matter how efficiently the Miramar Landfill is operated, and regardless of the technologies that can be employed in the near future, it is expected to reach capacity by approximately 2012 at the current rate of acceptance of waste, and the existing height limit.

At the time the lease for the Miramar Landfill was renegotiated in 1996, the height limit was imposed by the Department of Navy in order to ensure that landfill operations did not interfere with flight operations at what was then Naval Air Station Miramar. The air station has subsequently been realigned as a Marine Corps Air Station.

In 2004, the City began discussions with the Marine Corps about the possibility of a height increase. Although the goal of the project is to extend the life of the Miramar Landfill as long as possible, three factors were considered in moderating the amount of increase requested: 1) it is important not to interfere with flight operations, 2) visual impacts from the surrounding areas

must be minimized, and 3) because of the tapered sides of the landfill, greater heights have diminishing returns.

1.2 Purpose of the EIS/EIR

The City of San Diego has prepared this Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) to evaluate the potential environmental effects associated with the revision of the Miramar Landfill Solid Waste Facility Permit (SWFP) and the associated lease with the Department of Navy, MCAS, to allow a maximum 20-foot increase in height. The existing SWFP reflected a measurement from a topographic map of 470 acres, however, subsequent surveys more accurately measure the site size as 476.34 acres, and this size would be reflected in the new SWFP application. Additionally, the current permit has an annual limit on tonnage, and this limit would be removed entirely from the permit, to be consistent with the current protocol. However, no change in operation is proposed, therefore the daily tonnage and traffic limits would not change.

This EIS/EIR is intended to provide information on the impacts associated with the Proposed Project for all federal, state, and local agencies that may need to take an action to allow the maximum 20-foot height increase. The proposed height increase would require the following discretionary actions and permits:

- Lease Amendment – MCAS;
- Lease Amendment and issuance of a Site Development Permit – City of San Diego;
- Revision of the SWFP – City of San Diego Local Enforcement Agency (LEA), with concurrence by the California Integrated Waste Management Board (CIWMB);
- Waste Discharge Requirements – Regional Water Quality Control Board (RWQCB), San Diego Region; and
- Air Quality Permit – San Diego Air Pollution Control District.

Approval of the discretionary actions and permits associated with the proposed height increase would increase the total permitted capacity of Miramar Landfill from the maximum 1996 permitted airspace volume of 75,210,000 cubic yards to the total permitted airspace capacity of 87,760,000 cubic yards and extends the operating life by an estimated four years to 2016. This information is based on the information provided in the Joint Technical Document, dated February 2007, Table 3-1.

The City of San Diego serves as the "lead agency" for development and certification of this environmental document pursuant to the California Environmental Quality Act (CEQA). Marine Corps Air Station Miramar must take a major federal action of modifying the lease, and so serves as the federal cooperating agency for environmental review pursuant to National Environmental Policy Act (NEPA).

The most recent environmental document addressing Miramar Landfill and planned ancillary facilities was the Programmatic Environmental Impact Statement (PEIS)/Master Environmental Impact Report (MEIR) for the Miramar Landfill General Development Plan (GDP) and the Fiesta Island Replacement Project/Northern Sludge Processing Facility and the West Miramar Landfill Overburden Disposal LDR No. 91-0653 (NAS/Miramar, City of San Diego, July 1994). For ease of reference to this report in the current EIS/EIR, it is incorporated by reference and is called the EIS/EIR for the GDP. The GDP arranged projects into timed phases, with "phase 1" projects expected to be developed in the near term, and "phases 2 and 3" projects in the more distant future. The EIS/EIR for the GDP addressed the anticipated environmental impacts of all planned facilities in the GDP area for which there were detailed plans at a project level, and analyzed at a program level of detail those proposed facilities scheduled in project phases 2 and 3, for which much less information was available at the time.

The WML is divided into two geographical areas, "Phase I" to the east, and "Phase II" to the west. The lease agreement for operation of the landfill sets a maximum height limit of 465 feet above mean sea level (amsl) for West Miramar Landfill, Phase II, and 470 feet amsl for Phase I. In January 2005, after evaluating the potential for interference with aircraft, the U.S. Marine Corps, now in control of the base, indicated it would be willing to process a lease amendment to increase this limit by a maximum of 20 feet (15 feet in Phase I and 20 feet in Phase II). Section 2 of the August 17, 1995 Ground Lease between the United States of America and the City of San Diego will be modified to accommodate the height increase. Specifically, the section describing the uses on Parcel 4 will be modified to change the height limit to 485' MSL on page 3 of the document (see Appendix C).

This EIS/EIR will be used by the Marine Corps Air Station Miramar in its consideration of a proposed revised lease for Miramar Landfill. It will also be used by the City of San Diego in considering the revised lease and issuance of a Site Development Permit and Solid Waste Facility Permit. This EIS/EIR is made available to the public for their review and comments, as provided in the NEPA and CEQA processes. The Proposed Project will also be reviewed by the Federal Aviation Administration Office at the following address:

Express Processing Center
Federal Aviation Administration
Southwest Regional Office
Air Traffic Airspace Branch, ASW-520
2601 Meacham Boulevard
Fort Worth, TX 76137-0520

The FAA is expected to file a determination of "no objection" for the Proposed Project.

This draft environmental document will be made available to appropriate state and federal agencies, and to the public, for review and comment, as required by CEQA and NEPA.

1.3 History of Project Changes

The originally proposed 60-foot height increase was modified in response to flight considerations associated with the MCAS landing strip. Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for:

- Evaluating the effect of the construction or alteration on operating procedures;
- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects.

Notification allows the FAA to identify potential aeronautical hazards in advance thus preventing or minimizing the adverse impacts to the safe and efficient use of navigable airspace.

Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA of:

- Any construction or alteration exceeding 200 ft above ground level;
- Any construction or alteration
    - within 20,000 ft of a military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.;
    - within 10,000 ft of a military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.;
    - within 5,000 ft of a public use heliport which exceeds a 25:1; surface;
- When requested by the FAA; and
- Any construction or alteration located on a public use airport or heliport.

Construction or alteration of objects on or around airports can have an adverse impact to operations at an airport:

- If objects may result in an increase to approach minimums to runways.
- If constructed objects may impact runway protection zones, safety areas, object free areas and obstacle free zones.
- If transmitting frequencies could impact the navigational aide facilities.

Airport owners and operators should assure that all such improvements are properly evaluated by the FAA prior to commencement of the work. Alterations can be temporary or permanent. Projects such as the Proposed Project would increase the ground elevation, and also would include temporary construction alterations, such as equipment, stockpiles, and haul routes.

For the Proposed Project, proposed amsl elevations, the engineered drawings provided with this EIS/EIR, and a Landfill Height Controls and Operational Procedures Guidance Document were provided to MCAS Miramar. As previously stated, the City initially proposed a 60-foot increase in the active landfill area, which is called West Miramar Landfill, phases I and II. MCAS staff and military experts evaluated the proposal. It was determined that a 20-foot height increase would pose no obstruction or hazard to navigable airspace around MCAS Miramar. Thus the Proposed Project was reduced in scale by two thirds to ensure that the Proposed Project would not interfere with flight operations. This reduced project is now the Proposed Project. The increase could extend the life of the landfill by approximately four years.

1.4 Scoping Process

In the Fall of 2005, all community groups in the vicinity were contacted by phone and provided an information sheet on the Proposed Project. One group, the Kearny Mesa Community Planning Group, invited City staff to make a presentation. None of the groups contacted raised concerns about the Proposed Project; their primary question involved what the destination of waste would be after the ultimate closure of the facility. This question is the subject of overall long range solid waste management planning. The City has recently begun a public process of evaluating the options, some of which are described in the alternatives section of this report.

The City sent a Notice of Public Information Mailing on March 23, 2006 (Appendix A). The following people were informed of the informational meeting held by the Solid Waste Local Enforcement Agency (LEA) on April 5, 2007:

MCAS Miramar
Jack Harkins

Community Groups
Clairemont Mesa Planning Committee, Eleanor Mang, Chair
Kearny Mesa Community Planning Group, Buzz Gibbs, Chair
Mira Mesa Community Planning Group, Ted Brengel, Chair
Tierrasanta Community Council, Eric Germain, Chair
University Community Planning Group, Linda Colley, Chair

Legislators
Christine Kehoe
Lori Saldana

Council Members
Council President Scott Peters
Councilmember Kevin Faulconer
Councilmember Toni Atkins
Council President Pro Tem Tony Young

Councilmember Brian Maienschein
Councilmember Donna Frye
Councilmember Jim Madaffer
Councilmember Ben Hueso

Property Owners Near W. Miramar Landfill
Idec-Nobel Research Center
Arden Realty Limited Partnership
Dmtm Investments, Inc.
Hudson & Zimmerman LLC
Matthew Zetumer Trust
Ellen Nemiroff
James Malcom Serial LLC
Gordon & Judy Rick Family Trust
George Henderson
David Dicicco
Sonnenberg Family Trust
Ronald Pondrom
Lippert Family Trust
Wilfred Wright
Seckelman & Assoc.
Thomas Cartier
Ian Busch
Philip Karn, Jr.
Renko Meijer Trust
Amanda Dunkin
Antoinette Yager Trust
Joan Sieving
Thomas Sansone
Louie & Karen Linarelli Family Trust
Joan Brightman Trust
Birch Family Trust
Marc Nguyen
Charles & Rosa Young
Nelen Family Trust
Sheila Fisher Revocable Living Trust
Disalvo Trust
Robert & Cheryl Gustafson
Cambell Living Trust
Arlyn & Janet White Family Trust
Sargent Family Trust
Edward Howes
Chen Family Trust
Johnson Survivors Trust
Mark Efron
Armando & Sally Estacio

Philmore & Margaret Steele
Noel Quintana
Stephen Harris
Jeffrey & Mary Bostwick
Andrew & Esta Hearsum
Marvin & Janet Svoboda Trust
4-U Trust c/o Ann Eblen
Virginia Nash Trust
John Clemens Trust
Renee Krolikowski
Weyer Family Trust
Sol & Meryl Rochman Revocable Trust
John & Mary O'Neill
Glenn & Ellen Mitneer
Erik & Jonabelle Hustoft
Jamie Smith
James & Debra Dawson
Richard & Deborah Shea
Daniel & Tina Vaught
Michel & Jacqueline Bouchard
Douglas Carlone
Ralph & Perlly Tam
Lito Lazzaro Trust
James & Anne Wurdeman
Nancy Irwin
Leif & Esther Ljungquist
Cochrane Family Trust
William Cason
Wampach Family Trust
Isreal & Michal Sneider
Jonathan & Elke Berke
Fort Family Trust
John & Alice Dryden
Michelle Glen
Stafford Family Trust
Thomas & Mary Jensen
Wade & Elizabeth Mains
Robert Youngquist, Jr.
Frank & Pamela Smal
Guillermo & Theresa Adame
Charles & Vicki Miller
Cynthia Tanner Revocable Trust
Fink Masako Kodama
David & Vera Nelson
Basile Family Trust
Ahmad Aminilari

Lin Huey Hsiu-Yi
Arden Realty Ltd Partnership c/o Deloitte Tax LP
Kilroy Realty LP c/o Heidi Roth
Crolyn Warfield
James Christian
Eugen Birch
Michael & Lisa Sackett
Cademy Family Trust
Katakalidis Family Trust
Christopher & Hoa Doan
Yashfumi & Katsuko Yamamoto
Anne Hones
Giacomini Trust
Hall Family Trust
Watse Oostenvels Trust
HCA Office Park LLP
Eva Casner Family Survivors Trust
Cmk Kearney Park LLC
Royal Hospitality Inc. c/o Ramada Inn & Conference Center
Kearney Mesa Self-Storage c/o Lack Mtn Invs
Bergo Enterprises
Pedro Medin Revocable Trust
Peter & Rose Nguyen
George Hermain Living Trust
Charles Hargrave Trust
James Duke, Jr.
Shahrokh & Mohebbi Salehi Revocable Trust
Bolic Family Trust
John & Michelle Mabie
Rt SD-Denver LP c/o Dimension Development Co. Inc.
O'Connor & Herlihy
Carlstead Inc.
Carlstead Inc. Al Bahr Temple
Tatsue Shuku Jo
Cubic Corp.
Cabrillo Commerce Center LLC
Arvco Industrial Park c/o Arvco Realty
John Hancock Life Ins. Co. c/o Manulife Financial
Security Pacific Nat. Bank John Hancock Life Ins. c/o Manulife Financial
Abraham Perl
Convoy Properties LLC
Kusuhara/Reiko Toshihiro
Ubc Kearney Mesa LLC c/o Union Bank
Genuine Parts Co. c/o Finance Department
Stewart A. Sale
Rose Childrens Trust

Benny Miao Trust
M+I Leverant Trust
Nordic Investment Co.
Ostrow Partners
Behrooz/Jeannette Farhood
George C. Jach Trust
Roxanne V. Greene
Noelle Espinosa c/o Michelle Shaw
American Commercial Properties c/o Property Tax Dept
Clairemont Mesa Medical Arts Center c/o Thomas B Crosbie
Spectrum Property Mgmt.
James/Mary Clark Trust c/o Us Bank
Boyle Real Estate c/o Pillsbury Winthrop Shaw
G T E Mobilnet of Oregon c/o Wireless Asset Mgmt.
Hendrickson Family Trust
Rahim/Jamshide Sakhavat
Farhood Family Trust
Catellus Development Corp. c/o Deloitte Tax Attn. Raymond
Yuan Chen Ho/Chang Hua Kang
San Diego Crossroads Center Land c/o Oran J Laymon
Lamon Family Trust c/o Commercial Facilities
Gordon Frost Trust c/o Martha M. Frost
Kaiser Foundation Health Plan
Barcarco Inc.
Northern Star Growth Trust
CNS Properties
Kaiser Health Plan c/o Kaiser Foundation Hospitals
Frank Z. Parker
Kearny II c/o Alfredo Gallone
Eleanor Bucciarelli Trust Att. Property Tax Dept
Catellus Development Corp c/o Deloitte Attn Raymond
Diego I Investment Co. c/o Chestnut Properties
Arjmand Family Trust
Abbey III San Diego c/o The Abbey Co.
Balisimar Holdings
Richland Villas
Reza Siry
Mercury Village Holdings c/o Anza Pacific Properties
Union Bank c/o Union Bank
Krylow Trust
San Diego Investment Properties c/o Chuck Peterson
Katherine Bevash Trust
Hedy Aardema Trust
Iron Workers Local 229
Marina Piccioni Trust
Copley Park Developers c/o Thompson Fetter

T. Fetter & Co.
52 & Convoy Corp.
Velocity Properties of Calif.
R V Investment Ca c/o Holland Motor Homes
Puterbaugh Brothers
M I C Ltd. c/o Jim St. John
Gateway West Properties Inc. c/o Epropertytax Inc.
Pacific Office Properties/Seville Plaza c/o Shidler Group
Ellison Family Trust
M I C Ltd. c/o Modern Bookkeeping
Jaime Brener Trust
Constantine Family Trust
Potomac Family Trust
Grace Mitchell Estate c/o Janice Wicklund
Peter/Ladene Aardema Family Trust
Asteroid Corp.
Alexander P. Petakovich
Trepte Industrial Park
101 Enterprises
Hall/Johnston Family c/o Victor M. Hall
Neil/Barbara Shooter
Windbigler Family Trust c/o Fallbrook Equipment Rentals
Distabile Family Trust c/o Empire Realty
Mesa 5700 Kearny Villa Investors
Cook Inlet Region Inc. c/o Project Development
Waxies Nterprises Inc.
Waxie Way LLC
Mesa View Plaza Inc. c/o Todd Bailey
Sanford Development Corp. Chesapeake Management
Ninyo / Inter Vivos Trust
CBRE Operating Partnership c/o Depasqual Kelley & Co.
Chesapeake Center LP
Hazard R E Contracting
Surfstone LLC c/o Lounsbry Ferguson Alton & Pea
Four Points Partners LLC
Hazard Capital Assets LP c/o Commercial Facilities
Golden Girl Ltd. Liability
Abey III San Diego LLC c/o The Abbey Co.
Atkins Investments LP
Hazard R E Contracting Co.
Theodore R. Schonlaw
Arden Realty Finance c/o Deloitte Tax LP
Joseph Jr./Evangeline Salas Trust
FEH Income Properties
Gateway West Properties c/o Eproperty Tax Inc. Dept 207
Entravision Communications Corp C/O Michael Rowles

Jayscott LLC c/o Greg Watkins
Fenton Miramar Portfolio c/o H. G. Fenton
9194 Chesapeake Dr. LLC c/o Susan Mercurio
Stadion LLC C/O Alfred L. Elkins
Susi Simon Family Trust
Fowler Family Trust
Chesapeake Court LLC
Tremore LLC
Kearny Villa Center West c/o Collins Dev Co.
Archie/Wanda Humphrys Trust c/o Hydro Scape
Bernard Kuhl & Assoc.
Elizabeth & Darrow Roundy
Hic Kearny Mesa LLC c/o Harsch Inv. Corp.
5925 Kearny LLC
Getchell Family Trust
Conrique E. Trestand c/o Rancho Santa Fe Tech

In addition to the Kearny Mesa Community Planning Group presentation and the informational meeting held by the LEA on April 5, 2007, City staff has presented the project to the following groups:

- University City Community Planning Group on April 10, 2007;
- Mira Mesa Community Planning Group on April 16, 2007;
- Clairemont Mesa Community Planning Group on April 17, 2007; and
- Kearny Mesa Community Planning Group on April 18, 2007.

CEQA requires state and local agencies to consider the environmental impacts of their discretionary actions. Per the City's Land Development Code, the City's Environmental Analysis Section provides CEQA staff to perform the environmental review for the Proposed Project, including determining if potential significant impacts might occur, and if so, what specific mitigation measures would be required to reduce impacts to below a level of significance.

In determining what environmental issues should be addressed, factors such as regional waste generation rates (described in the Purpose and Need Section), were considered. As described in that Section, despite increasing regional waste reduction and recycling rates, disposal rates are not expected to decrease, and in fact, are expected to increase. However, no increase in the allowed trips per day at the Miramar Landfill is proposed with the Proposed Project. Other solid waste facilities will be relied on to handle the increasing amount of waste generated within the region. Alternatively, existing transfer facilities currently have sufficient permitted capacity to transport the material out of the region, should none of the alternative local disposal options be approved.

Marine Corps Air Station Miramar must take a "major federal action" if it amends the lease to allow this additional 15 to 20 feet. The project proposal will be evaluated pursuant to Marine Corps Order P5090.2A, the Environmental Compliance and Protection Manual, which requires that an EIS provide a full and unbiased discussion of all significant environmental impacts and informs decision makers and the public of the reasonable alternatives that would minimize impacts or enhance the quality of the human environment. The City is the "lead agency" for environmental review under CEQA, and Marine Corps Air Station Miramar is the cooperating agency for the review under NEPA. Both processes require the lead agency to determine issues that could result in significant impacts, and to provide a Notice of Preparation and Notice of Intent, respectively, allowing the public the opportunity to comment on the scope of environmental issues to be addressed in the documents.

Pursuant to Section 15082(c)(1) of CEQA and Marine Corps Order (MCO) P5090.2A, a public scoping process is required. The MCO specifies that input from affected federal, state, and local agencies, any Native American tribe, minority and low-income populations, and other interested persons must be solicited. A public scoping meeting was held on May 10, 2006 to get additional input from the public on potential issue areas. The distribution included:

Federal Government
U.S. Marine Corps (3)
Commanding General, MCAS Miramar Air Station (13)
U.S. EPA
U.S. Fish and Wildlife Service (23)
U.S.D.A. Natural Resources Conservation SRVS (25)
Dept. of Interior, Environmental Policy and Compliance

State Government
Caltrans (31)
CA Department of Fish and Game (32)
CA Department of Fish and Game (Sacramento office)
California Integrated Waste Management Board (35)
California EPA (37A)
Resources Agency (43)
CA Regional Water Quality Control Board (44)
State Clearinghouse (46)
California Air Resources Board (49)
Water Resources Control Board
California Transportation Commission, Quality Advisory Committee

County Government
Air Pollution Control District (65)
Department of Public Works (70)
Dept. of Environmental Health (75)

City of San Diego
Mayor Sanders, MS 11A
Council President Peters, MS 10A
Councilmember Faulconer, MS 10A
Council Atkins, MS 10A
Council President Pro Tem Young, MS 10A
Councilmember Maienschein, MS 10A
Councilmember Frye, MS 10A
Councilmember Madaffer, MS 10A
Councilmember Hueso, MS 10A
Environmental Services, Lisa Wood (MS 1102A)
LDR EAS, Marilyn Mirrasoul
LDR Planning, Ismael Lopez
LDR Landscaping, Craig Hooker
LDR Transportation, Jim Lundquist
Transportation Development (78)
San Diego Fire Department, Sam Oates (MS 603)
San Diego Police Department, Jerry Hara (MS 711)
Geology, Pat Thomas (MS 401)
Long Range Planning, Maxx Stalheim (MS 4A)
Water Department, Chris Gascon (MS 910D)
LEA, Bill Prinz (MS 606L)
MWWD, Alejandro Ruiz (MS 22)
Bob Ferrier (80)
University Community Branch Library (81JJ)
Balboa Branch Library (81B)
Mira Mesa Library (81P)
Scripps-Miramar Library (81FF)
Tierrasanta Library (81ll)
Central Library (81)
Police Research and Analysis (84)
Real Estate Assets Dept. (85)
General Services (92)
Clairemont Community Service Center (MS 97)
City Attorney, Shirley Edwards (MS 59)

Others
City of Chula Vista (94)
City of Coronado (95)
City of Del Mar (96)
City of El Cajon (97)
City of Escondido (98)
City of Imperial Beach (99)
City of La Mesa (100)
City of Lemon Grove (101)
City of National City (102)

City of Poway (103)
Poway Library
City of Santee (104)
City of Solana Beach (105)
SANDAG (108)
San Diego County Regional Airport Authority (110)
SDGE (114)
Back Country Against Dumps (162)
Sierra Club (165)
San Diego Audubon Society (167)
Mr. Jim Peugh (167A)
Environmental Health Coalition (169)
California Native Plant Society (170)
Center for Biological Diversity (176)
Endangered Habitats League (182)
League of Women Voters (192)
Community Planner Committee (194)
Town Council Presidents Association (197)
Clairemont Mesa Planning Committee (248)
Clairemont Chamber of Commerce (249)
Clairemont Town Council (257)
Kearny Mesa Town Council (263)
Kearny Mesa Community Planning Group (265)
Marian Bear Recreation Council (267A)
Mira Mesa Community Planning Group (310)
Tierrasanta Community Council (462)
University City Community Planning Group (480)
University City Community Association (486)
BRG Consultants
San Diego Landfill Systems, Neil Mohr
United Veterans Council, Chairman Joe Brunner

Native Americans
Campo Band of Mission Indians
Cuyapaipe Band of Mission Indians
Inaja and Cosmit Band of Mission Indians
Jamul Band of Mission Indians
La Posta Band of Mission Indians
General Council, Chairperson
Mesa Grande Band of Mission Indians
San Pasqual Band of Mission Indians
Santa Ysabel Band of Mission Indians
Sycuan Band of Dieguena Mission Indians
Viejas Band of Mission Indians

A copy of the meeting notice is provided in Appendix B of this document. The notice was published in the San Diego Daily Transcript and mailed directly to 19 groups and individuals within the vicinity or interested in the issue. However, no members of the public attended, and the meeting was adjourned after 25 minutes. Written comments regarding the scope of the document were provided by the California Integrated Waste Management Board and are included in Appendix B.

1.5 Relevant Statutes, Regulations, and Guidelines

This EIS/EIR has been prepared in compliance with the National Environmental Policy Act of 1969 (NEPA, 42 USC, § 4321 *et seq*.); the Council of Environmental Quality (CEQ) Regulations (40 CFR, Part 1500); Department of the Navy (DoN), Procedures for Implementing the National Environmental Policy Act (32 CFR, Part 775); Marine Corps Order P5090.2A; Department of the Navy Environmental and Natural Resources Program Manual (OPNAVINST 5090.1A, October 2, 1990); the California Environmental Quality Act (CEQA) of 1970, as amended (California Public Resources Code, §21000, *et seq*..); California Guidelines for Implementation of the California Environmental Quality Act, as amended September 2004 (Title 14 CCR, § 15000 to 15387); City of San Diego Municipal Code, §69.0101-69.0110 and §128.0101-128.0314; City of San Diego Technical Report and Environmental Impact Report Guidelines (September 2002, updated December, 2005); and City of San Diego Development Services Department's Significance Determination Thresholds, August 2006.

2.0 ALTERNATIVES

The California Environmental Quality Act (CEQA) of 1970, as amended, and the National Environmental Policy Act (NEPA) of 1969 require a discussion and analysis of alternatives to a proposed action.

Pursuant to the Guidelines for Implementation of CEQA (Section 15126.6), the Environmental Impact Report (EIR) must contain a consideration of alternatives that can attain most of the basic objectives of the Proposed Project and would avoid or substantially reduce significant environmental effects of the Proposed Project. Alternatives to be considered in this manner should be reasonable and feasible. Specifically, Section 15126.6(a) states the alternatives section of an EIR shall:

> Describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

The CEQA Guidelines (Section 15126.6(b)) state the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. According to CEQA Guidelines, the range of potential alternatives to the project required in an EIR is governed by the "rule of reason" and shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (Sections 15126.6(c), (f)). The CEQA Guidelines also require discussion of the "No Project" alternative (Section 15126.6(e)).

NEPA requires that an Environmental Impact Statement (EIS) describe a range of reasonable alternatives to a project, or to the location of a project, which could feasibly attain most of the basic goals of the project but would avoid or substantially lessen any significant environmental impacts while substantially attaining the basic goals of the project. Alternatives for an EIS may take the form of no project, no federal action (no permits), reduced project size, different project design, or suitable alternative project sites. Alternatives discussed in an EIS must only be within a reasonable range and an EIS need not consider an alternative that would be infeasible.

According to the Council on Environmental Quality (CEQ) NEPA Regulations (40 CFR 1502.14), the alternatives section of an EIS is required to:

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) Include reasonable alternatives not within the jurisdiction of the lead agency.

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

This section provides a description of the Proposed Project and a description and analysis of feasible alternatives to the Proposed Project, including the No Project alternative, pursuant to the requirements of CEQA and NEPA.

2.1 Proposed Project

The Proposed Project would extend the life of the existing, approved WML by increasing the landfill height up to 20 feet above the currently approved landfill elevations, and thus increasing the total waste disposal capacity. The necessary "major federal action" to allow the Proposed Project is the approval of a revised lease document by MCAS Miramar. The existing site topography is shown in Figure 2a. The currently approved height is depicted in Figure 2b, and ranges from 465 feet amsl to a maximum of 470 feet amsl. Temporary stockpiles and other currently-permitted topography does not mimic natural landforms in the area; instead it provides an engineered surface. The purpose of this design is to provide for maximum capacity. The 1980 EIR for WML did not find significant visual impacts associated with this engineered shape, and therefore no analysis of the benefits of increased capacity was considered. The large setback from San Clemente Canyon and from view locations along I-805 reduced potential impacts of the proposed grading. This, combined with the required Closure Plan, which included required revegetation, was considered to result in no significant impact. For the currently Proposed Project, the proposed landfill elevation of 485 feet amsl is shown in Figure 2c. The proposed elevation would almost exactly mirror the existing final elevation, but would be 15 to 20 feet higher. As with the previous elevation and design, the new landfill design would not conform to surrounding natural mesa/canyon topography. However, the increase in height is relatively small, as shown in the visual simulations. The setback distance and proposed revegetation upon closure would not change, although, as before, the exact nature of the ultimately required revegetation will not be known until the Closure Plan is submitted for final review prior to implementation. The City has proposed native species for revegetation.

The current height limit of 465 feet amsl to 470 feet amsl was included in the DoN 1996 lease agreement with the City of San Diego, to ensure that landfill operations did not interfere with flight operations at what was then Naval Air Station Miramar. The base has subsequently been realigned as a Marine Corps Air Station. ESD approached the Marine Corps in 2004 to discuss the possibility of a height increase. The base determined that a 20-foot height increase could be allowed without interfering with flight operations. The proposed lease amendment is included as Appendix C to this EIS/EIR document.

The proposed height increase would increase the total permitted capacity from 65,834,000 cubic yards to 76,458,000 cubic yards. As a result, it is anticipated that the operating life of Miramar Landfill would be extended approximately four years to late 2016 or possibly to 2017.

The proposed vertical expansion consists of placing additional refuse to raise the final surfaces of both phases I and II areas to a maximum elevation of 485 feet above mean sea level.

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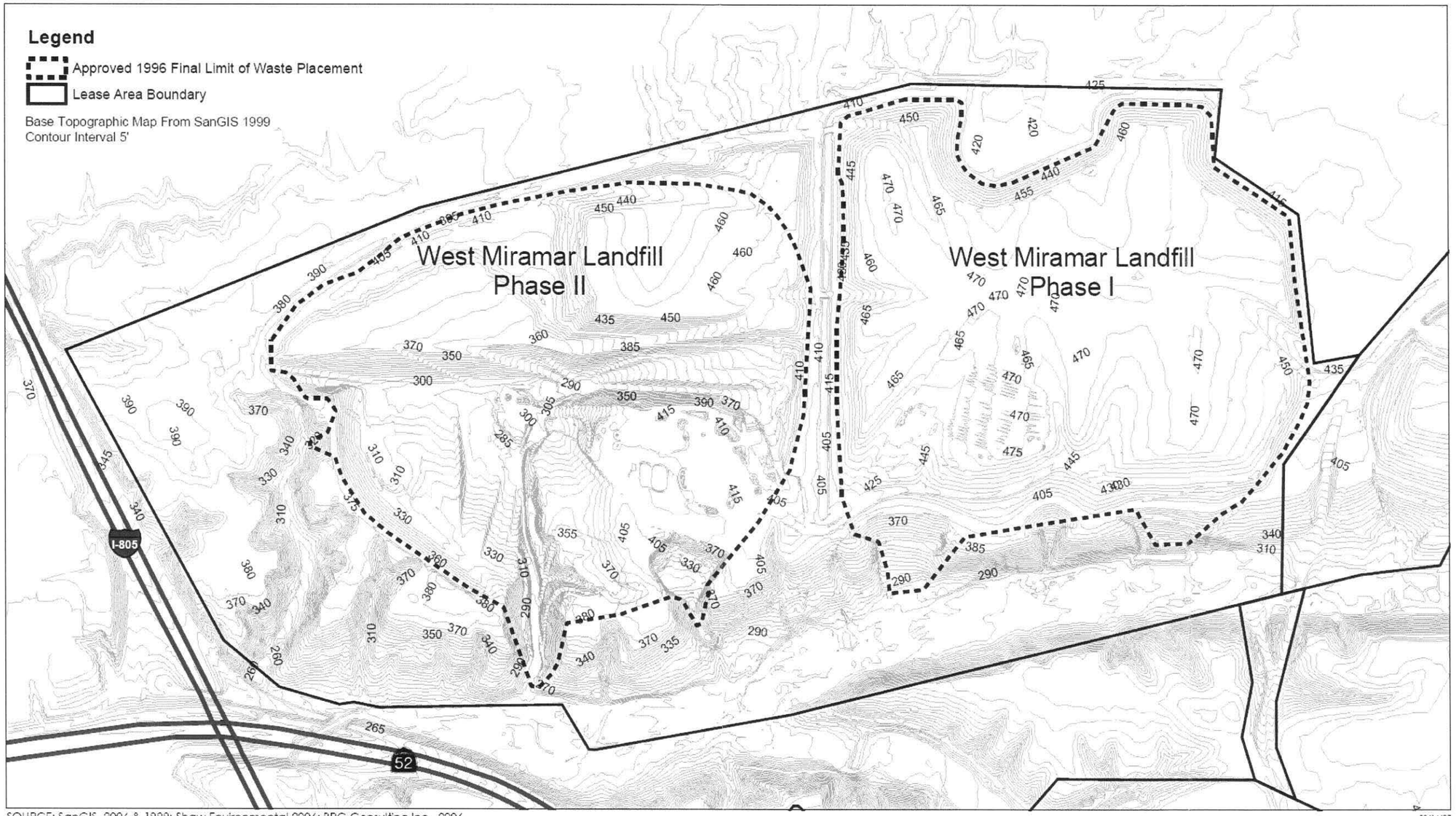
Figure 2a - Existing Topography, West Miramar Landfill



SOURCE: SanGIS, 2006 & 1999; Shaw Environmental 2006; BRG Consulting Inc., 2006

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0 350 700 1,400 Feet

Miramar Landfill EIS/EIR

Existing Topography, West Miramar Landfill

FIGURE 2a

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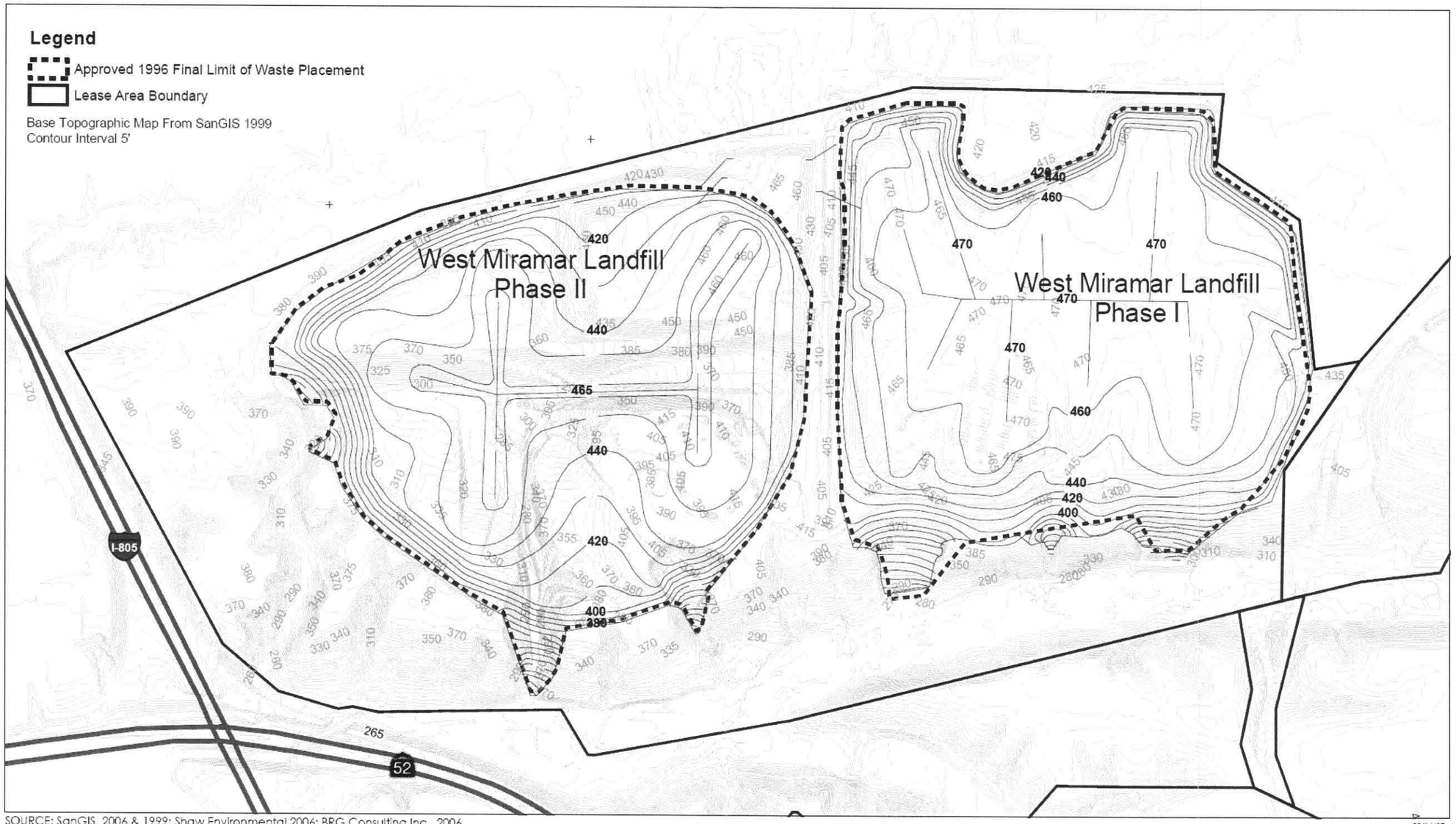
Figure 2b - Currently Permitted Topography, West Miramar Landfill



SOURCE: SanGIS, 2006 & 1999; Shaw Environmental 2006; BRG Consulting Inc., 2006

Miramar Landfill EIS/EIR

Currently Permitted Topography, West Miramar Landfill

FIGURE 2b

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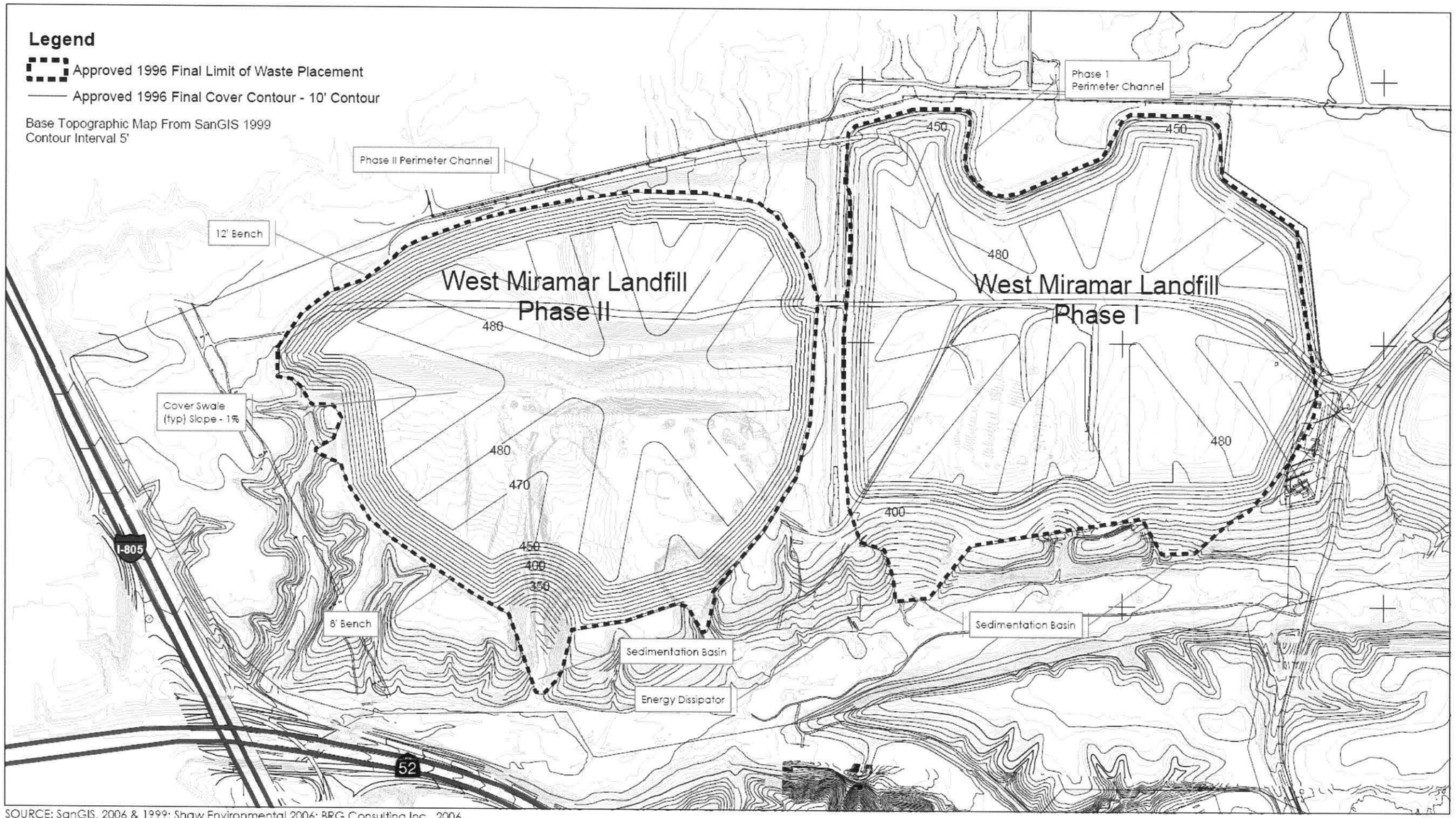
Figure 2c - Proposed Topography, West Miramar Landfill



SOURCE: SanGIS, 2006 & 1999; Shaw Environmental 2006; BRG Consulting Inc., 2006

03/14/07

0 350 700 1,400 Feet

Miramar Landfill EIS/EIR

Proposed Topography, West Miramar Landfill

FIGURE 2c

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Under the 1996 preliminary closure plan, the maximum elevation of Phase I was to be 470 feet and that of Phase II was to be 465 feet above mean sea level. The final surface of Phase I would therefore be raised by about 15 feet and that of Phase II by about 20 feet. In both cases, the expansion would involve continuing the side slopes upward at inclinations of 3:1 (horizontal:vertical) to meet the designed edge of the raised top slope. A horizontal bench, 12 feet wide where needed to accommodate LFG header pipes and eight feet wide at other locations, would be left at the junction of the existing and newly proposed side slopes. Waste placement methods and practices would remain essentially the same as those now practiced.

The estimated new net refuse volume resulting from the vertical expansion would be 9,374,000 cubic yards (5,999,000 tons) with a net airspace volume increase of 11,718,000 cubic yards. This information is based on the data provided in the Joint Technical Document, dated February 2007, Table 3-1. The current solid waste facility permit has the permitted design capacity at 56,500,000 cubic yards; however, those numbers were improved in the summer of 2006 to 65,834,000 cubic yards with data produced by flying over the landfill and producing far more accurate readings than were previously obtained with ground surveying techniques.

Existing facilities on the surface of the landfill, such as the yard waste processing area, would be shifted within the footprint of the landfill to accommodate the height increase. The Greenery facility would remain where it is located as the first cells are filled, then the facility would be moved to the new, top deck of the landfill and the area under the current location would be filled. The City is also considering the possibility of moving the Greenery from the WML area to the surface of the South Miramar Landfill. No horizontal expansion is proposed. No change in the amount of daily waste acceptance is proposed, nor would it be allowed under the proposed SWFP. No changes in operations other than those necessary to accommodate the vertical expansion are proposed.

The vertical expansion would involve the placement of solid waste across the surfaces of Phase I and Phase II, up to the grades defined by the final grading design. Solid waste would continue to be placed in the Phase II area until the proposed height limit is reached, at which time solid waste disposal operations would return to the Phase I area. The vertical expansion would require changes to the drainage control system; the steepening of some side slopes in Phase I from 4:1 to 3:1 (horizontal:vertical) to maximize capacity; and changes to the landfill gas control system and the monitoring networks. Waste placement methods and practices would remain essentially the same as methods now used.

The existing drainage control system consists of major drainage channels and berms, downdrains, energy dissipaters, and detention basins. These systems would be modified to accommodate the proposed height increase. Whether the Proposed Project is approved or not, the final drainage system would be designed, constructed, and maintained as a formal, permanent system. The existing drainage facilities would be removed during placement of the final cover and reestablished as final drainage facilities after the final cover is in place. A horizontal bench, about eight to 12 feet wide (level projection), would be placed at the base of the proposed

vertical expansion. The side slope inclination of the landfill is proposed to be no steeper than 3:1 between drainage and access benches. The side slopes in Phase II would continue upward at inclinations of 3:1 to meet the designed edge of the raised top slope. The proposed benches would serve as corridors for landfill gas headers and as drainage breaks on the slope to intercept stormwater runoff and limit erosion of the final cover.

The landfill gas control system in the Phase I area consists of 107 vertical extraction wells, two main headers and a network of subheaders. The present system in the Phase II area consists of eight horizontal extraction wells, 39 vertical extraction wells, two main headers, and a network of subheaders. The existing LFG collection system depicted in Figure 5-1 of the 2006 Preliminary Closure/Post-Closure Management Plan shows existing gas extraction wells. Additional wells may be needed to collect the additional gas as a result the proposed height increase. Under a contract with the City, a private company owns the gas, and provides collection wells in exchange for this resource; however the ultimate responsibility for provision of adequate collection is with the City. The horizontal wells do not perform as well as vertical wells and are gradually being replaced. Future modifications to the control and collection system arising from the vertical expansion would largely be limited to extending existing vertical extraction wells and associated piping as the landfill reaches its final height, and installing additional vertical wells. The proposed plan for the LFG collection system is shown in Figure 5-2 of the Preliminary Closure/Post-Closure Management Plan.

To revise the SWFP as necessary to allow the height increase, regulatory agencies require development of a new Closure Plan. The only proposed changes to the previously approved Closure Plan are those necessary to provide for the increased height. Slopes in the new Closure Plan were designed to maximize capacity. The proposed revegetation would not be altered, although the revegetation plan would be subject to modification by regulatory agencies at the time of closure.

The existing 1996 Preliminary Closure Plan was approved by the RWQCB, the LEA, and the CIWMB. It proposed the use of two prescriptive cover systems after final closure of the landfill. Prescriptive covers are designed to act as a hydraulic barrier. The updated preliminary Closure Plan proposes the use of a "monolithic" (dirt) cover system; however, the final decision on the closure method that is ultimately used would be up to the RWQCB. The proposed cover relies on a thick layer of vegetated soil to control infiltrating water by means of storage in soil pores, and subsequent extraction via evapotranspiration. This cover design is often used in southern California because the area's dry climate, and the design's relative economy, environmental benefits, and history of successful performance.

2.2 Continue Existing Operations (No Project Alternative)

Under the No Project alternative, WML would continue to operate under its existing permits and lease. This operation includes acceptance of more than 1.4 million tons per year of mixed municipal waste. Gas collection and groundwater monitoring would continue, as would ancillary

activities, such as composting and salvaging, both of which divert materials from disposal. These operations occur within the footprint of the WML. Figures 3 and 4 provide an overview of the WML facility and its vicinity. Figure 5 shows locations of specific facilities within the landfill lease boundaries. The No Project alternative would result in closure of the landfill approximately four years before closure under the Proposed Project scenario. All identified alternative options for solid waste management during those four years that have been identified would have greater traffic and air quality impacts associated with longer trip distances than are associated with disposal at the Miramar Landfill under the Proposed Project.

Operation of the permitted landfill is the baseline against which impacts of the 20-foot height increase are measured. The Proposed Project would make no changes at all to the footprint, or to the operations. Since the footprint of the Proposed Project and the No Project alternatives is the same, there would be no changes in impacts to cultural, paleontological, or biological resources. The geology and mineral resources effect associated with both alternatives is identical since it is the same site, although slightly different engineering would be required for the higher slopes. The hydrology of the identical footprints is the same, although runoff control structures would be slightly modified to ensure no net change in runoff velocities as a result of the 20-foot height increase. The noise impacts associated with identical operations would be the same, although slightly reduced as a result of the new topography. Since operations would not be changed, energy consumption and conservation, and impacts to health and safety, public services and facilities and utilities, and traffic impacts would be identical to baseline traffic.

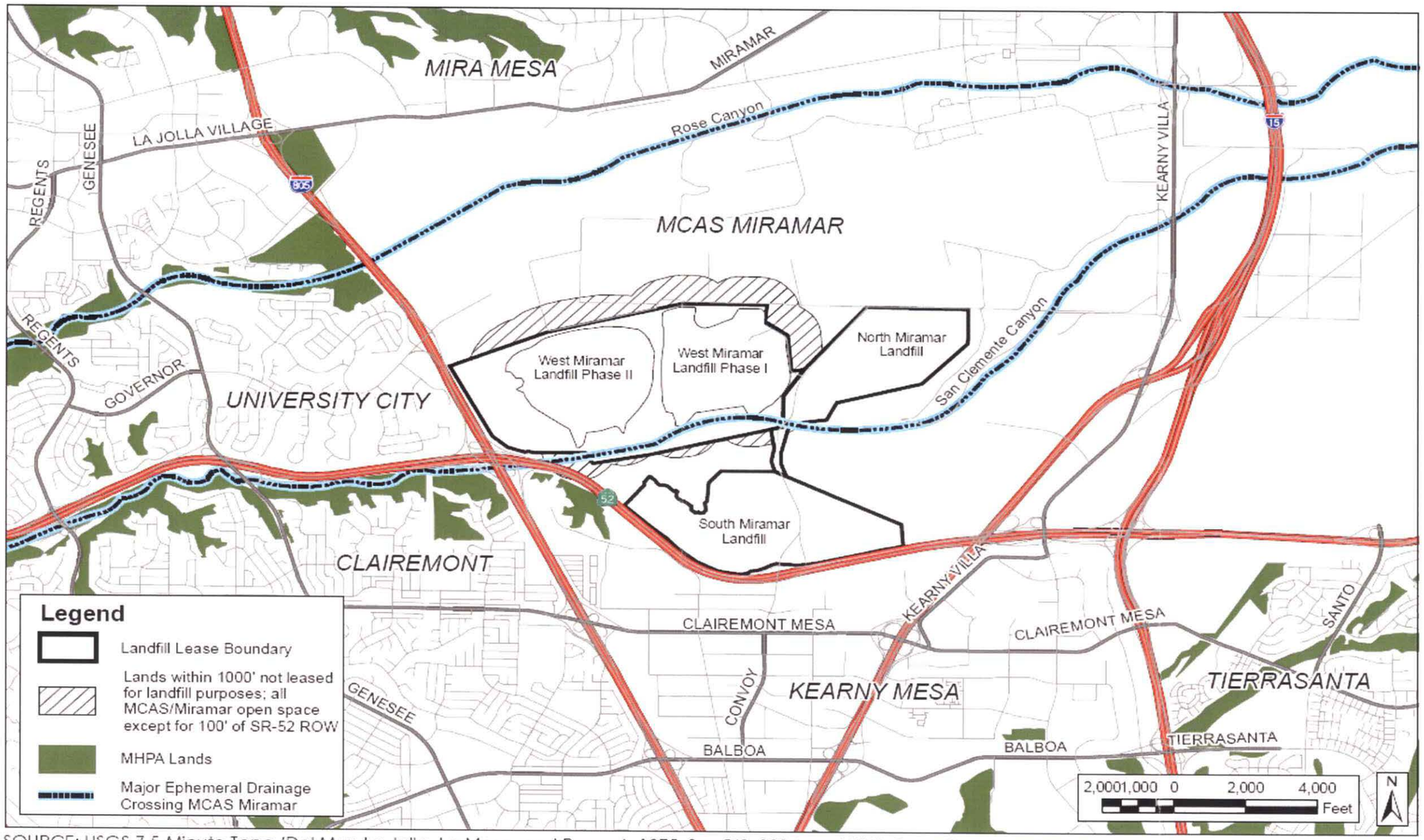
For many issue areas, therefore, the impacts of the Proposed Project and the No Project alternative are identical. Because operations would occur over a longer period of time, however, there would, over the life of the landfill, be more methane gas generation for the Proposed Project. However, on a daily basis, control measures would ensure that there would be no net increase in emissions associated with the landfill. Because the landfill is constantly changing, adjustments in the control systems are required under the existing permit and from the Proposed Project. Regulators inspect monitoring reports and the landfill itself, and they require changes accordingly. Changes in regulations and/or adjustments resulting from the proposed height increase may require additional monitoring and gas extraction wells in the future to maximize gas capture.

Similarly, groundwater monitoring would not change, and runoff controls for the proposed height increase would also assure no net increase. Therefore with one exception, the impacts at the Miramar Landfill of the No Project alternative are virtually identical to the Proposed Project; however, the No Project alternative would have other impacts. Specifically, the No Project alternative would have increased trip distances to alternative transfer and disposal sites, resulting in potential traffic impacts at alternative facilities and increased emissions from longer hauls associated with longer transport to other transfer and disposal sites.

The one issue area where the No Project alternative has a measurable difference at the Miramar Landfill as compared to the Proposed Project is with respect to visual impacts. The Proposed

Project would be a maximum of 20 feet higher than the No Project alternative, and thus would be more visible. However, the direct and cumulative visual impacts of the Proposed Project are not significant. Thus, the No Project alternative would not alleviate any significant direct, indirect, or cumulative impacts, because no significant impacts are associated with the Proposed Project. The No Project alternative would, however, have less visual impacts than the Proposed Project, but would not accomplish the goal of extending the life of the landfill by four additional years. Under the No Project alternative the landfill would close in 2012, whereas the Proposed Project would extend the life of the facility by approximately four years.

Figure 3 - Project Vicinity Map



SOURCE: USGS 7.5-Minute Topo (Del Mar, La Jolla, La Mesa, and Poway), 1975, SanGIS, 2004, and BRG Consulting, Inc., 2006

03/14/07

Miramar Landfill EIS/EIR

Project Vicinity Map

FIGURE 3

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Figure 4 - Aerial Photo, Project Area and Vicinity

SOURCE: SanGIS, 2004, and BRG Consulting, Inc., 2006

03/14/07

		Miramar Landfill EIS/EIR Aerial Photo, Project Area and Vicinity	FIGURE 4

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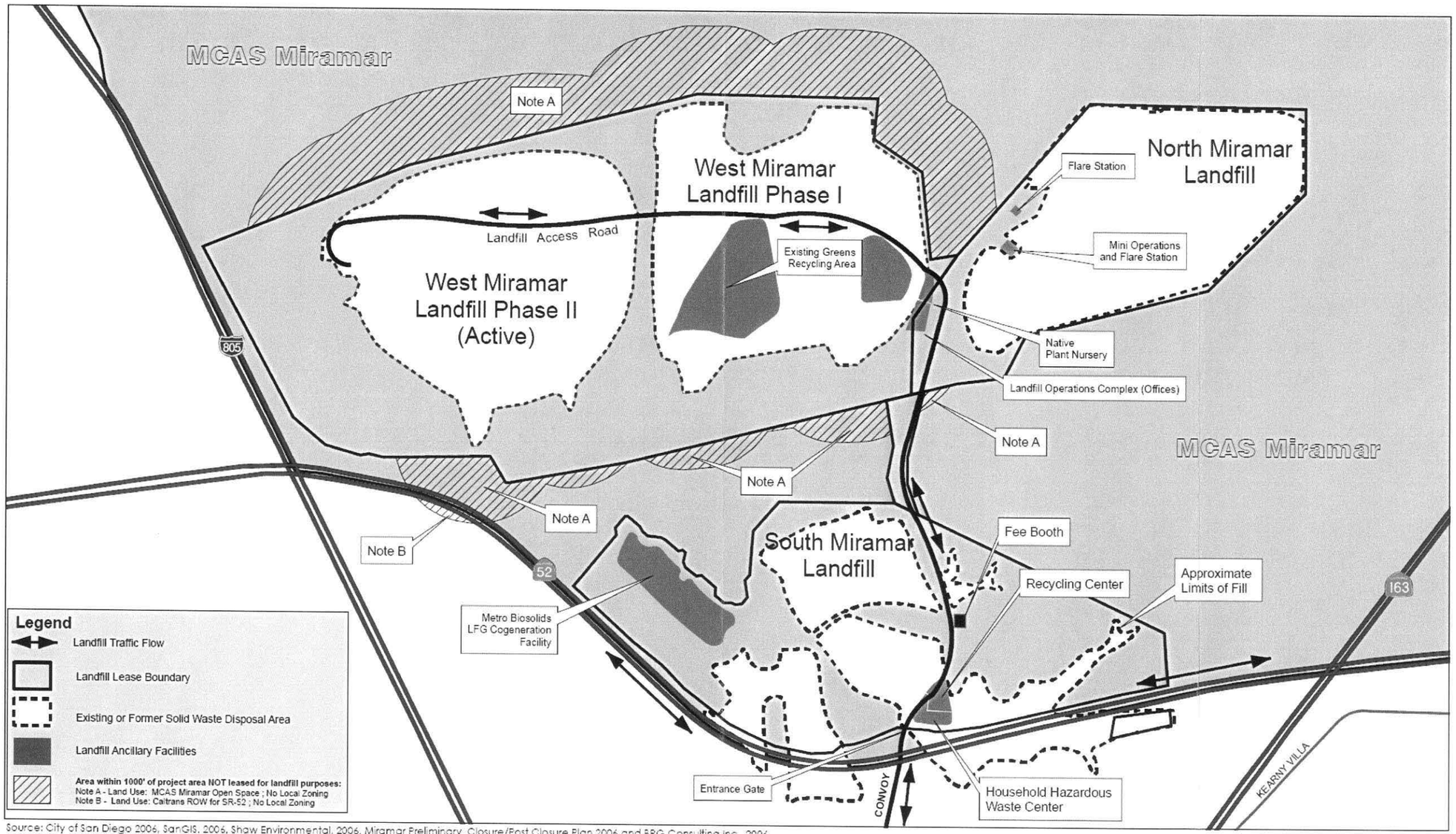
Figure 5 - Miramar Landfill Operations Areas, Facilities, and Applicable Boundaries



Source: City of San Diego 2006, SanGIS, 2006, Shaw Environmental, 2006, Miramar Preliminary Closure/Post Closure Plan 2006 and BRG Consulting Inc., 2006

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2.3 Other Alternatives

2.3.1 Reduced Expansion – Ten-Foot Increase

A common alternative considered in environmental documents is a smaller project. The Proposed Project is already a smaller scale project than originally proposed. Reducing the height increase even more, down to 10 feet, would reduce the visual effects compared with the No Project alternative. The visual scale would be approximately half that of the Proposed Project. The surrounding landscape as described in the cumulative impact analysis would not change. The nature of the change to the landscape caused by this alternative would be the same as the Proposed Project; however, the blending effect of a ten-foot increase, as compared to a 20-foot increase, would be marginally reduced.

The ten-foot increase alternative would not fully meet the project goals as it would provide less capacity than the Proposed Project. This alternative would require reengineering of cells that are normally engineered in 20-foot lifts. The more they are reduced, the more labor is associated with each cell, making it more costly. Also, unless tarpaulins are used as the only cover, the cover material (such as dirt) occupies more and more of the cell capacity, thereby thwarting the environmental imperative to preserve disposal capacity in existing landfills. Thus a 20-foot lift is more efficient than a 15-foot lift, which is more efficient than a 10-foot lift. It is possible that, as a result of difficulties associated with this modification, somewhat less than the expected two or so years of additional capacity could be achieved. Even if a full two years of additional capacity could be achieved, implementation of this alternative would sacrifice two years of capacity for a marginal improvement to a project impact that is not considered significant.

2.3.2 Alternatives Considered but Rejected

60-foot Increase

ESD initially suggested a 60-foot height increase. It was anticipated that at this height, the landfill would still be sufficiently low profile to avoid interference with military flight operations. Additionally, though more capacity can be gained with increasing height, there are diminishing returns because of the tapered sides of the landfill, therefore a greater height increase, while it would add capacity and would be worthwhile, would not be as effective.

As tenants on a military base, the ESD recognizes and respects the primary mission of the base, which is national security. A key component of national security is flight operations. Base personnel reviewed the proposal and determined that only a 20-foot increase could be allowed without interfering with flight operations.

With regard to other issues areas, and depending on the nature of the replacement for Miramar, it could be argued that a greater vertical increase would reduce impacts that would be associated with the eventual need to find a replacement destination for waste materials after the closure of

the Miramar Landfill. Other public facilities have been required to consider the impacts associated with their closures, and in some cases, have been forced to remain open as a result of this consideration. In some cases, the impacts of expanding/continuing one essential public facility can be less than the foreseeable alternatives. However, in this case, because of the public service needs of the landowner, a greater vertical increase is not a possibility. Since the alternative to provide a larger vertical expansion is not possible, a comparison of the impacts of the options that may replace the Miramar Landfill once it is closed is speculative and unwarranted.

Another option considered, but rejected by the Marine Corps, was a potential increase in the height of North Miramar. This area is located very near the jet landing strip and an increase in the height of the landfill in this area could interfere with flight operations. However, other proposals to make maximum use of this area, such as landfill mining, are being considered. Furthermore, horizontal expansions into other MCAS areas have been discussed and are also being considered, but these activities will require a longer planning and permitting horizon, and so are considered in addition to, not instead of the Proposed Project. When and if proposed, they will require additional environmental review.

Another option considered but rejected by staff landfill engineers, was the potential to increase the height of South Miramar Landfill. This portion of the landfill is now considered "closed," and is bisected by SR 52. Raising the height of this portion of the landfill would require reopening of the landfill and reengineering of the freeway. Reengineering and realignment of the freeway would be more expensive than any other solid waste management options considered, costing hundred of millions of dollars for filling an area in a manner that could support a freeway, and then realigning the freeway to cross over the newly raised landfill.

Several other solid waste management activities were considered as potential alternatives, but rejected as alternatives of the Proposed Project because they would not increase disposal capacity at Miramar Landfill, the objective of the Proposed Project. These activities include increased diversion of solid waste from disposal in the landfill; conversion of solid waste to other materials or to energy; siting of one or more new disposal sites in San Diego County; and transportation of San Diego municipal solid waste to other regions.

Diversion of Materials from Disposal

A primary goal of ESD is to maximize diversion of materials from disposal. For example, ESD is currently pursuing development of a mixed construction and demolition (C&D) debris recycling facility. Careful study of the waste stream and analysis of the private recycling infrastructure indicated a need for a mixed C&D Materials Recovery Facility. However, even recycling processes usually produce residual materials, usually requiring a landfill for disposal. While diversion and recycling of solid waste are important solid waste strategies, and are assumed as part of the rationale for not requesting an increase in the allowable throughput into the landfill, they would not increase the capacity of Miramar Landfill. Thus, diversion is needed

addition to the Proposed Project, in order to allow the landfill to continue to accept the current volume of waste.

Thermochemical Waste Conversion

Thermochemical waste conversion technologies that produce energy or other marketable products from specialized waste streams have been used extensively in Japan. These technologies are more capital-intensive than other solid waste management methods. They have higher electrical conversion efficiencies than traditional incineration, and are highly compatible with recycling. Thermochemical technologies treat almost the entire organic fraction of municipal solid waste, including high energy content plastics that are not helpful in the decomposition process and have no market value. "Gasification" can be used to produce usable fuels, and uses air (though less air than incineration) and temperatures above 1300^{o}F to convert feedstock into a synthetic gas or fuel gas. "Pyrolysis," in contrast, is a process that uses no oxygen at all.

An environmental advantage of these technologies includes extracting the energy resources in the waste stream. This provides "green energy" and avoids environmental impacts associated with extracting and generating energy using other methods. Standard landfills that flare collected gases do not exploit the energy resources that are present in the waste stream at all. The Miramar Landfill uses the gas that is collected to generate energy, but advanced technologies use the energy resources in the waste stream more efficiently. Thus, while there is not a specific impact associated with the Miramar Landfill that would be mitigated by use of any type of advanced technology, this alternative would have a comparatively greater benefit in terms of reduced impacts associated with production of other sources of energy.

A second advantage of this technology is that the residues are of extremely reduced volume. Thus, if the technology were available today, the life of the Miramar Landfill could be extended well beyond the four years of the Proposed Project, thus doing a better job of fulfilling the purpose of the Proposed Project.

Although there are environmental advantages associated with these advanced technologies, there are also higher capital costs. An article in Waste Management and Research (Volume 18 Issue 1 Page 41 - February 2000; H. Ecke, H. Sakanakura, T. Matsuto, N. Tanaka, A. Lagerkvist) entitled "State-of-the-art Treatment Processes for Municipal Solid Waste Incineration Residues in Japan" discusses the state of the art treatment processes for municipal solid waste and for incineration residues. Although advanced technologies show promise for efficient use of waste materials, especially those with a high organic content, the equipment must be carefully controlled and maintained to prevent pollution during the treatment process, and then additional treatment may be required for the resulting ash material. This high technology approach requires the same or more capital investment for permitting as do traditional solid waste management facilities, and there are additional expenses. For example, there are costs associated with sorting loads to ensure that the waste stream provides the proper feedstock for the technology selected.

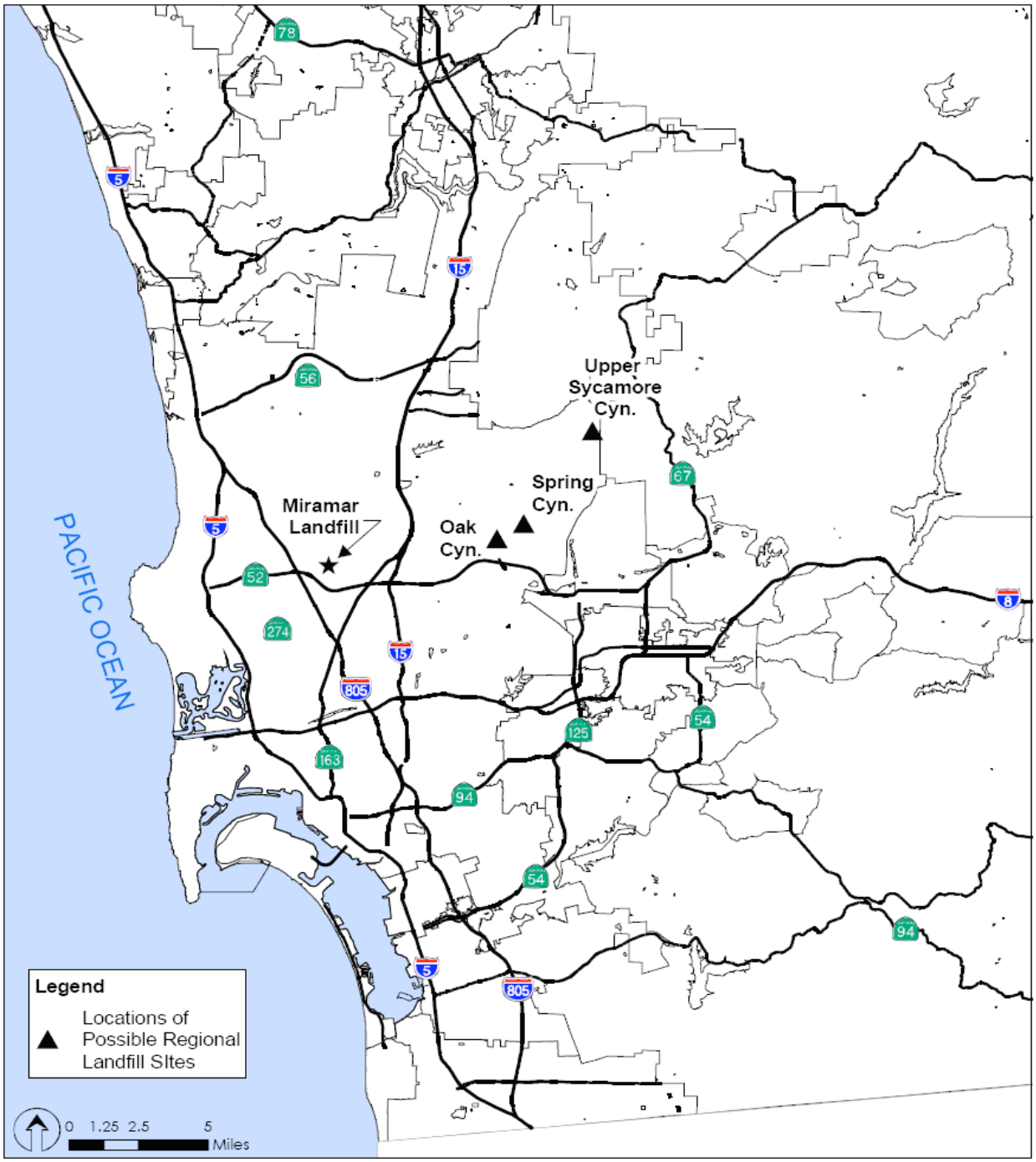
Furthermore, the high tech treatment equipment costs millions of dollars, as compared with the relatively low costs of equipment such as bulldozers used at the Miramar Landfill. The solid residues from the process are low in volume, but may contain dioxin and/or potentially hazardous metals. In Japan, handling of residues is of major concern and treatment prior to landfilling is required. Accepted treatment techniques include, for example, using the ash material in cement (stabilization and solidification), or stabilization with a chemical agent and acid extraction. Disposal in a southern California landfill typically costs between $30 and $60 per ton, while the cost for advanced Japanese and European technologies exceeds $100 per ton.

Not only are thermochemical conversion technologies more capital intensive than other solid waste management approaches (including the Proposed Project), the planning horizon for permitting and development of infrastructure is beyond the planning horizon for the Proposed Project. ESD has no current plans for a thermochemical conversion project. Thermochemical waste conversion processes would not increase the capacity of Miramar Landfill but they could divert enough materials to extend the life of the landfill. However, they are rejected because they are not available or economically feasible at this time, as an alternative to the Proposed Project.

Development of New Disposal Facilities in the City of San Diego

Siting new facilities is extremely costly and time consuming, and cannot occur without environmental impacts. Landfill siting studies conducted by the City of San Diego and the County of San Diego between 1988 and 1992 identified three potential regional-size landfill sites within the City of San Diego (Dames & Moore, 1990). Since the time of this study, these sites either have been designated under City plans for other uses, or have become incorporated into the City's Multiple Species Conservation Program and are no longer available for landfill development. Locations of these sites are shown in Figure 6. None of these alternative sites would meet the main Proposed Project objective, to maximize the disposal capacity of the Miramar Landfill, to continue operation of an existing, conveniently-located site for disposal of San Diego municipal solid waste. Additionally, unless a suitable previously disturbed site could be found, development of a disposal facility at any alternative site could disturb about 100 to 300 acres of biological habitat. These totals do not include biological habitat disturbance necessary for ancillary facilities, or for access roads to the landfill. Visual resources, air quality, and traffic impacts would also be expected for the alternative sites. Thus alternative landfill site would not result in avoidance of significant impacts associated with the Proposed Project. For these reasons, the development of alternative landfill sites is rejected as a feasible alternative for consideration in this EIS/EIR.

Figure 6 - Possible Regional Landfill Sites, City of San Diego, Southwest San Diego County Solid Waste Facility Siting Study



SOURCE: Dames & Moore, 1990, SANDAG, 1993, and BRG Consulting, Inc., 2006 11/28/06

Miramar Landfill City of San Diego EIS/EIR
Possible Regional Landfill Sites,
Southwest San Diego County
Solid Waste Facility Siting Study

FIGURE
6

Transportation of Solid Waste to Other Regions

Transporting waste out of the region moves the impacts of landfilling to other areas, but does not eliminate them. Trash must be transferred from the smaller trucks that travel down narrow streets to collect trash to larger, more efficient trucks for hauling longer distances on highways. This adds costs associated with the development and operation of the transfer station, and labor to transport and transfer the materials, in addition to fuel and energy costs. This process also may add impacts such as noise and odor that may be associated with the transfer facility development and operation, and additional traffic and air pollution associated with the travel. While this may eventually be an action that the City of San Diego must make, it is not consistent with the objective of the Proposed Project, to maximize the disposal capacity of Miramar Landfill, in order to continue operation of an environmentally-operated and conveniently-located site for disposal of municipal solid waste. Therefore, it is rejected as an alternative to the Proposed Project.

2.3.3 Comparative Matrix of Alternatives

A matrix, Table 2.3.3-1, has been prepared to facilitate comparisons between the alternatives. This matrix includes impacts of the Proposed Project, and includes any mitigation measures that may be associated with the various alternatives. The No Project and Reduced Project alternatives have reduced visual effects as compared with the Proposed Project, but they do not fulfill the purpose of the Proposed Project to extend the life of the landfill, and do not eliminate any significant impacts. Therefore, on balance, the Proposed Project is considered environmentally superior.

TABLE 2.3.3-1
Comparison of Alternatives

ALTERNATIVE	DIRECT IMPACTS	INDIRECT IMPACTS	CUMULATIVE IMPACTS	MITIGATION MEASURES
No Project	No change from existing conditions.	Closure in 2012 would result in air/public facility impacts associated with vehicle emissions from transportation to more distant location, and difficulty identifying a suitable location.	No change from existing conditions.	AIR QUALITY: Measures such as watering, use of soil stabilizers, and exhaust emission controls have been required. LANDFORM ALTERATION: Revegetation per Closure Plan.
Proposed Project (Includes No Project mitigation measures as part of project design.)	Less than significant increase in visibility.	Closure in 2016 would delay transportation to more distant location, resulting in a net benefit.	The slightly greater visibility of the landfill may be REDUCED by some potential projects, but in no case would it contribute to cumulatively significant impacts.	Measures incorporated into the project design would ensure no significant impacts. These measures are required and enforced by regulatory agencies.
Reduced Project (Includes No Project mitigation measures as part of project design.)	Adverse increase in visibility would be reduced.	Closure prior to 2016 would hasten transportation to more distant location, resulting in less benefit than the Proposed Project	The slightly greater visibility of the landfill may be REDUCED by some potential projects, but in no case would it contribute to cumulatively significant impacts.	Measures incorporated into the project design would ensure no significant impacts. These measures are required and enforced by regulatory agencies.

Source: City of San Diego, ESD, 2007.

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3.0 AFFECTED ENVIRONMENT/EXISTING CONDITIONS

3.1 City's Existing Organizational Structure

The City of San Diego's ESD currently operates the landfill and a portion of the solid waste collection service in the City of San Diego. In addition, the Department provides solid waste planning services, waste reduction and recycling programs, code enforcement, energy conservation programs, and other services.

Rather than requiring the landfill provider to provide a "free dump" day, so that members of the community can bring in their oversized items, the City provides community cleanups. Additionally, the landfill provides free passes on a case-by-case basis to nonprofit and other community organizations involved in cleanup events, especially in areas of economic need.

The Department has prepared for any national emergency that could cause the Marine Corps to need to close the Miramar Landfill suddenly. The August 2006 "Preparedness Planning for Solid Waste Management Services in the Event of Sudden Closure of the Miramar Landfill" document received input from regulatory agencies, the Marine Corps, and private solid waste management operators, and is available from ESD.

3.2 Environmental Setting

The Proposed Project site is located at the Marine Corp Air Station Miramar (MCAS Miramar) on land owned by the Department of Defense. The landfill is operated by the City of San Diego via a lease from the DoN. The landfill is located in the middle of the oddly shaped City of San Diego boundary, the "centroid" of the City. The landfill is bordered on the west by Interstate 805 (I-805), on the south by State Route 52 (SR-52), on the east and north by other MCAS Miramar property. Surrounding land uses include MCAS Miramar to the north and east; industrial, commercial, office, and residential to the south; industrial and undeveloped open space to the east; and residential, office, and commercial to the west.

Response times for fire and life safety emergency vehicles to guard shack at Miramar Landfill, Copley Drive entrance are as follows:

- The response time for Engine 28, housed at Fire Station 28, located at Kearny Villa and Aero Drive is 8.1 minutes.
- The response time for Engine 36, housed at Fire Station 36, located at Mt. Abernathy and Chateau is 8.4 minutes.
- The response time for Engine 27, housed at Fire Station 27, located at Clairemont Drive and Cole is 9.4 minutes.
- The response time for Truck 28, housed at Fire Station 28, located at Kearny Villa and Aero Drive, is 2.1 minutes.

- The response time for Battalion Chief 5, from Fire Station 35, located at Genesee and Eastgate Mall is 11.7 minutes.

The site is within police beat 313, which is served by Eastern Division Police Command located at 9225 Aero Drive. The following are response times for police beat 313:

- For emergency calls: 7.16 minutes
- For priority 1 calls: 12.17 minutes

The Citywide response time average is:

- For emergency calls: 7.21 minutes
- For priority 1 calls: 14.25 minutes

The leasehold is comprised of four areas: North Miramar Landfill, South Miramar Landfill, and the entrance road and West Miramar (Phases I and II). These four areas are collectively known as Miramar Landfill. The Proposed Project would be located on the 807-acre West Miramar Landfill (WML) site. The Proposed Project would be completely within the existing 476-acre footprint.

The first landfill activities at Miramar Landfill began at South Miramar Landfill in December 1959, when the Mission Bay Landfill was closed. The lease for the approximately 192-acre South Miramar Landfill was issued prior to the enactment of NEPA and CEQA; therefore, there is no environmental documentation for this portion of the landfill. South Miramar became inactive upon reaching its approximately 4.2 million cubic yard capacity in 1973.

The lease for the North Miramar Landfill was signed in September 1970. The first landfill activities at North Miramar began May 5, 1973, when South Miramar reached its capacity. North Miramar was constructed and operated on approximately 260 acres. Excavation to a depth of approximately 152 feet provided a total capacity of 16.2 million cubic yards of fill.

An EIR was certified by the City of San Diego in 1981 addressing the impacts of disposal operations on the 807-acre WML site. The City issued a Conditional Use Permit for this facility. Subsequent projects, such as the development of the Household Hazardous Waste collection facility, have not required City land use permits (CEQA and NEPA compliance for the Proposed Project were provided via the EIS/EIR for the GDP). In 1982 the SWFP for North Miramar disposal operations was modified to allow disposal operations to occur on the WML site. The first landfill activities began at WML in April 1983, when North Miramar reached its capacity. WML is a municipal solid waste disposal facility located on 807 acres, operated in two phases: Phase I and Phase II. Phase I operated on 354 acres of the eastern portion of West Miramar from April 1983 to June 1993 and is temporarily not accepting waste. Phase II is the only portion of Miramar Landfill currently accepting waste. It operates on 453 acres of the western portion of West Miramar, and started receiving waste in July 1993.

In February 1988, a land swap between the City of San Diego and the DoN returned 9.2 acres in the northwestern corner of the lease area to the Navy in exchange for 9.2 acres on the old North Miramar lease area for a proposed vehicle mini-operations area. The vehicle mini-operations area is used to maintain vehicles and equipment needed for disposal and composting operations. The City determined this action to be categorically exempt from environmental review because it would not change the land use in the area or affect undisturbed areas.

In 1992, an EA prepared by the Marine Corps evaluated the impacts associated with increasing the capacity of the WML by means of an aggregate extraction program within the footprint of the WML. The WML was described as an existing facility in this document. A Finding of No Significant Impact was made.

In 1994 a joint NEPA/CEQA document was prepared for two projects: a sewage sludge drying facility, which is now located within the leasehold in the southern part of the Miramar Landfill, and a General Development Plan, detailing how the City saw the continuing transition from simply burying solid waste in the landfill to a suite of operations designed to divert materials from disposal. The General Development Plan addressed impacts associated with several facilities that are now in operation, including the Household Hazardous Waste collection facility. The WML was described as an existing disposal facility in this document.

The environmental document for the GDP identified impacts within the existing, permitted landfill footprint. This document discussed off-site and in-situ remediation in general, and said that any measures would be subject to refinement by the federal government through the U.S. Fish and Wildlife Service. One month after the document had been finalized, a Biological Opinion was issued to enforce a U.S. military policy requiring all permanent mitigation to take place outside of federal lands in order to retain training ground and ensure military readiness. Subsequent off-site mitigation has taken place and includes, two mitigation measures: purchase of property supporting upland habitats that were assumed to be present in the landfill footprint area prior to landfilling activities, and purchase of vernal pool areas assumed to be present prior to these activities. These requirements were fulfilled by the purchase of two properties: "Parcel F," in Boden Canyon, containing upland habitats, located east of the wild animal park, and Copp Parcel, containing both upland habitats and vernal pools, located on Del Mar Mesa.

The Phase I area is located in the eastern half of the WML. This area was used for a landfill site from 1983 to 1994, and is temporarily not accepting waste. Other uses, including the composting operation, occur in this area. The Phase II area is in the western half of the WML. This is the currently active phase of the landfill and it has been receiving waste since 1993.

San Clemente Canyon runs roughly east to west. It is south of the Proposed Project site. The Canyon area is excluded from the lease and the existing landfill has no direct impact on the Canyon. Indirect impacts of the existing operation, such as runoff, are controlled through various Best Management Practices, which are routinely inspected by regulatory agencies. The Canyon contains an ephemeral stream linking the mountainous areas in eastern San Diego

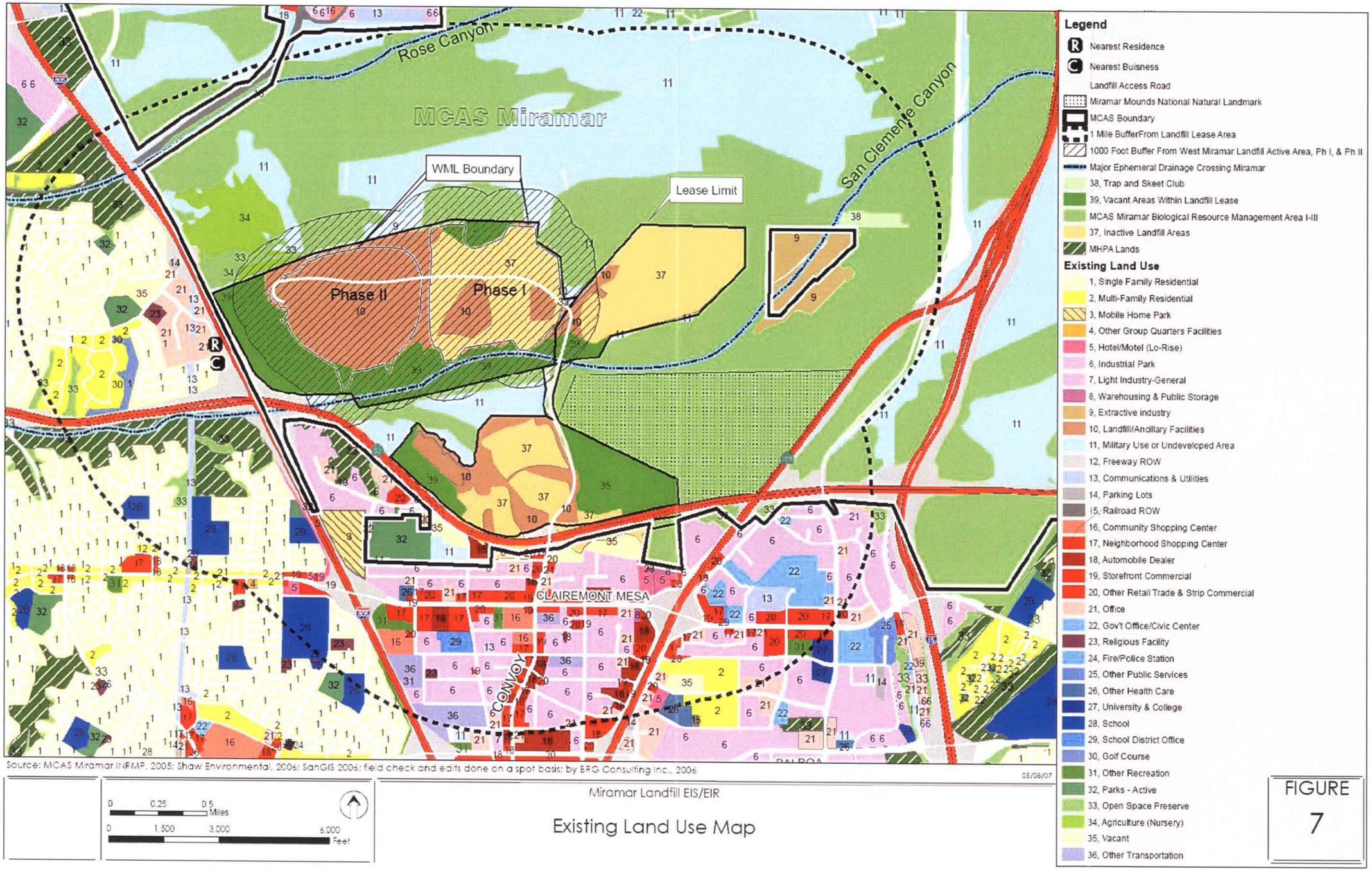
County with Rose Canyon, and eventually Mission Bay and the Pacific Ocean. The Canyon, where it is adjacent to the Proposed Project site, functions as a wildlife corridor and provides habitat for many plants and animals. The Proposed Project site is entirely within the footprint of the existing, permitted, WML active landfill.

The Proposed Project site is not included in the MHPA because the military provides its own habitat planning. Most of the surrounding area within 1,000 feet is characterized by undeveloped mesas, interspersed with canyons, covered by low-growing shrubs, as described in Section 3.3.3 and depicted in Figures 3 and 4. The only land use within 1,000 feet that is not either land leased for landfill purposes by the City of San Diego, or open space buffer surrounding MCAS Miramar, is approximately 1,000 feet of SR 52 ROW south of WML, Phase II. The site is zoned AR-1-1 and is covered by Conditional Use Permit (CUP) 10-632-0; however, the Proposed Project would not trigger an amendment to this CUP.

A private plant nursery, operated within the base under lease with the federal government, and MCAS Miramar airstrip are located more than 1,000 feet to the north; ancillary landfill facilities and State Route 52 are located to the south; Interstate 15, State Route 163, and older phases of the Miramar Landfill are located to the east; and, open space and Interstate 805 are located to the west. North of MCAS Miramar is the community of Mira Mesa, approximately 1.25 miles north of the Proposed Project site. The area of Mira Mesa that is closest to the Proposed Project site is comprised primarily of light industrial and commercial uses, though other parts of this community have single family residential uses. On the south side of State Route 52 are the Kearny Mesa and Clairemont communities. Kearny Mesa is mostly light industrial (with commercial) uses, although there are limited areas of mixed use commercial/residential and low-density residential uses. The area of Clairemont that is closest to the Proposed Project site is comprised of open space and single-family residential (minimum lot size of 5,000 square feet) uses. Vacant land on MCAS Miramar is located to the east of Interstate 15 and State Route 163. To the west of Interstate 805 is the community of University City. The areas of University City that are closest to the Proposed Project site include single-family residential (minimum lot size of 5,000 square feet) and light industrial (with office) uses.

The nearest residence is located approximately 0.93 mile (4,919 feet) southwest of the Proposed Project site in the University City community. The nearest commercial use is located approximately 0.83 mile (4,380 feet) west of the Proposed Project site in the Kearny Mesa community. A detailed land use map of the Proposed Project vicinity is shown in Figure 7.

Figure 7 - Existing Land Use Map



Source: MCAS Miramar INRMP, 2005; Shaw Environmental, 2006; SanGIS 2006; field check and edits done on a spot basis by BRG Consulting Inc., 2006

05/08/07

Miramar Landfill EIS/EIR

Existing Land Use Map

FIGURE 7

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3.3 Existing Conditions for Each Issue Area

3.3.1 Land Use

Applicable Rules, Regulations, Policies, and Guidelines

The project site is depicted in the City's General Plan as a military facility. Land use on this site is determined by the Marine Corps, which oversees all development and operations on the Station. The Marine Corps is assigned the unique defense mission among the nation's armed services of being able to field, on virtually immediate notice, a self-sufficient air and ground combat force trained to fight as an integrated team under a single command. To prepare for this mission, the Marine Corps must maintain training facilities that offer diversity and flexibility to train its units so they are prepared for the challenges they may face in combat. The base has a variety of land use pressures, including providing residences, recreational opportunities for military personnel, and military functions. These land use needs are balanced with the natural resource needs, and with the Air Installations Compatible Use Zones, which provide guidance regarding noise and crash potential both on- and offsite.

Under the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), an additional land use consideration is any impact that the project may have to agricultural resources. Special areas within the state have been identified on California's Important Farmlands Maps as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. Additionally, the US Department of Agriculture Natural Resources Conservation Service has developed Land Use Capability classifications based on the type of soils present.

The history of human use at the site originates with Native Americans who used it as a hunting area. The area then became part of a Spanish land grant owned by Don Santiago Arguello. At that time, cattle grazing is likely to have occurred. After the Civil War the site was purchased by Edward Scripps and during the mid to late 1880s the land was grazed, and there was some non-irrigated agriculture. During WWI, an Army Infantry training center called Camp Kearney was established, housing approximately 5,000 men and 20,000 horses and mules. Additional realignments were made within the military, with designation of the site as Naval Air Station Miramar in 1952. It remained NAS Miramar until 1997, when Marine flight operations were transferred and the site became MCAS Miramar.

Although there has been some agricultural use of the site in the history of the site, it has primarily served a military purpose. There is no suitable farmland soil at the site because the substrate of the Proposed Project site itself is MSW fill material, which is not suitable for agricultural purposes.

Existing Conditions

The EIS/EIR for the General Development Plan found the landfill and proposed new land uses to be consistent with the existing NAS Miramar Master Plan Update. Subsequent planning documents, such as the Marine Corps Air Station Miramar Integrated Natural Resources Management Plan (2005) (INRMP), have continually included this land use.

The Marines provide natural resources planning, via the INRMP pursuant to Section 101 of the Sikes Act (16 USC 670a). **"**The primary purpose of the Integrated Natural Resources Management Plan (INRMP) is to integrate Marine Corps Air Station Miramar's land use needs, in support of the military mission, with the management and conservation of natural resources. The INRMP establishes MCAS Miramar's approach and guidelines relative to natural resources to accomplish this end. This INRMP does not dictate land use decisions but rather provides important resource information to support sound land use decisions and natural resource management."

The INRMP explains that "[l]and uses at MCAS Miramar include both military and non-military functions and facilities. The majority of military and non-military land uses exist primarily to support the Marine Corps mission, which is to provide an operational and training facility for Marine Corps pilots and ground support personnel. Military land uses at MCAS Miramar include operation (e.g., aircraft operations) and non-operational (e.g., community support uses and functions." In addition to air and land training areas, "[l]and uses not directly related to or supportive of the military mission also take place within the boundaries of MCAS Miramar. These non-military uses primarily include leases and easements for public highways, roadways, utilities, and landfills encompassing about 2,900 acres."

Non-military land uses on the base include San Diego Gas and Electric facilities, a trap and skeet club, landfill operations, sand and gravel extraction, Hickman Field Athletic Complex, Eastgate Mall road, a commuter rail station, Nobel Drive, Miramar Road, and Metropolitan Waste Water Department facilities. These uses are existing uses, and are considered compatible with the primary mission of the base.

3.3.2 Air Quality

Applicable Rules, Regulations, Policies, Guidelines

Federal actions have a general conformity threshold of 100 tons per year of emissions. If the sum of the direct and indirect emissions exceeds this threshold, a full conformity determination must be performed.

In addition, the Proposed Project site is located in the San Diego Air Basin (SDAB), and is under the jurisdiction of the County of San Diego Air Pollution Control District (SDAPCD). The SDAPCD regulates sources of air pollution within San Diego County and administers state and federal mandates. The main applicable rules, regulations, polices, and guidelines include: Title V of the 1990 Clean Air Act Amendments; New Source Performance Standards Subpart WWW for Municipal Solid Waste Landfills; and SDAPCD Rules 59.1, 51, 20.3, and 1200.

- **Title V** of the 1990 Clean Air Act Amendments mandates that all major stationary sources obtain an operating permit that encompasses all the applicable requirements for the emission units operated at the stationary source. This is a federal regulation that is delegated to SDAPCD.
- **New Source Performance Standards (NSPS) Subpart WWW** is a federal regulation that requires the installation of gas collection and control systems for new and existing landfills. The gas control systems must reduce landfill emissions by 98 percent.
- SDAPCD **Rule 59.1** implements and enforces NSPS Subpart WWW locally. This rule requires operators of landfills to install gas collection systems and to monitor the effectiveness of these systems.
- SDAPCD **Rule 51** provides the regulatory mechanism for SDAPCD to control and enforce activities or occurrences that are a nuisance, such as landfill odor, to a number of persons or the public.
- SDAPCD New Source Review (NSR) **Rules 20.1 and 20.3** provides specific requirements for non-major and major sources of air pollutants and includes standards for Best Available Control Technology (BACT), Lowest Achievable Emission Rate, Air Quality Impact Analysis (AQIA), Prevention of Significant Deterioration, public notification, and emission offsets. The specific air quality goal of this regulation is to ensure emission increases from new or modified permitted sources do not negatively affect progress toward attaining or maintaining attainment with applicable air quality standards for non-attainment air contaminants or their precursors.
- SDAPCD **Rule 1200** stipulates that proposed facilities with potential emissions of toxic air contaminants (TACs) conduct a Health Risk Assessment to evaluate offsite impacts on human health. This rule is the NSR for TACs.

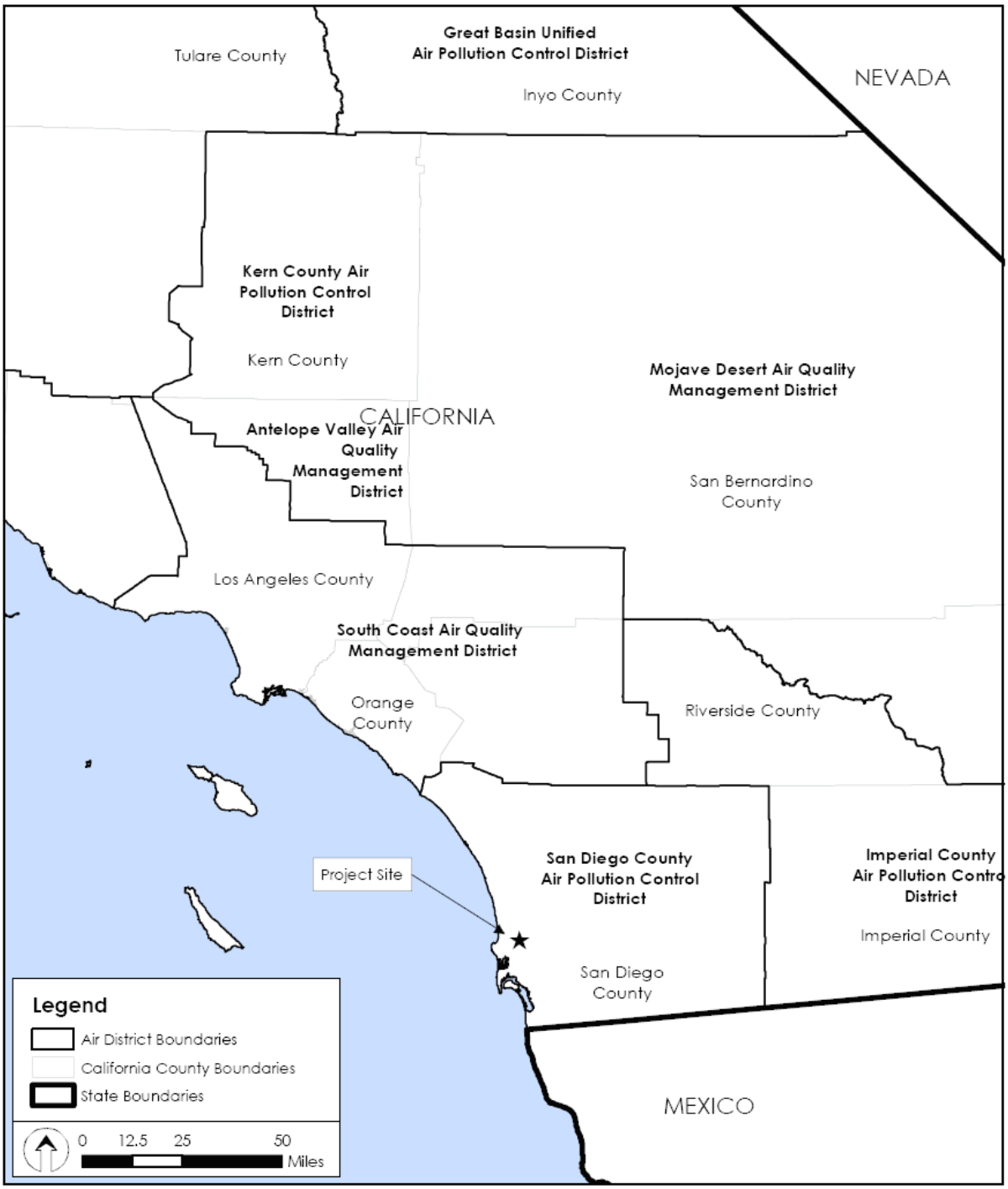
Existing Meteorology and Air Quality

The WML is located approximately seven miles east of the Pacific Ocean and is characterized as a Mediterranean-type climate. Temperatures range from a minimum low of 45°F in January to a high of 63°F in August, and a maximum low of 65°F in January to a high of 81°F in August. The prevailing wind direction is from the west-northwest, with average wind speeds ranging from five to eight miles per hour. The area often experiences "Santa Ana" wind conditions, which are hot, dry easterlies blowing from inland desert areas. These winds tend to disperse air pollutants out over the ocean, producing clear days.

The WML is located within the San Diego Air Basin (SDAB). Currently, the SDAB is in attainment for federal standards of ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), total suspended particulate matter smaller than ten microns in diameter (PM_{10}), and lead (Pb), and in non-attainment for federal standards for O_3 (eight-hour). The SDAB is also in attainment of state air quality standards for all pollutants with the exception of O_3 (one-hour and eight-hour), PM_{10}, and $PM_{2.5}$ (particulates smaller than 2.5 microns). Air pollutants transported into the SDAB from the adjacent South Coast Air Basin (Los Angeles, San Bernardino County, Orange County, and Riverside County) substantially contribute to the non-attainment conditions in the SDAB. Figure 8 depicts the SDAB in relation to the other air basins in Southern California.

Existing air quality for the Proposed Project site is best characterized by air quality data from the Kearny Mesa air monitoring station, located on Overland Avenue approximately three miles southeast of the Proposed Project site. In general, the Proposed Project area has good air quality with the exception of ozone (O_3). Air quality monitoring data from the Kearny Mesa monitoring station indicates that in 2004, PM_{10} and NO_2, did not exceed the state standards; however, one-hour O_3 levels exceeded the state standard six days during that year. Table 3.3.2-1 depicts the ambient air quality summary for the Kearny Mesa air monitoring station from 2002 through 2004.

Figure 8 - Southern California Air Basins



SOURCE: SanGIS and BRG Consulting, Inc., 2007 05/01/07

	Miramar Landfill EIS/EIR Southern California Air Basins	FIGURE 8

TABLE 3.3.2-1
Ambient Air Quality Summary
Kearny Mesa Monitoring Station 2002 through 2004

Year	Ozone		Nitrogen Dioxide		Particulates (PM_{10})	
	Max. 1 hour Concentration (pphm)	Days exceeding 0.09 pphm in 1 hr	Max. ppm in 1 hr	Days exceeding 0.25 ppm in 1 hr	Max. 24 hour concentration ($\mu g/m^3$)	Days exceeding 50 $\mu g/m$ in 24hrs
2002	11	3	.080	0	49	0
2003	11	2	.084	0	280	2
2004	11	6	.085	0	44	0

Notes: hr = hour ppm = parts per million pphm = parts per hundred million
μg = microgram
Source: California Air Resources Board ADAM Ambient Air Quality Inventory, 2005.

Existing Emissions and Emission Controls

Emissions from landfill operations include both criteria pollutants and toxic air contaminants (TACs). The criteria pollutants are most commonly regulated air pollutants: CO, nitrous oxides (NO_X), PM_{10}, sulfur oxides (SO_X), and volatile organic compounds (VOCs). TACs are air pollutants that may pose a present or potential hazard to human health, specifically by causing an increase in mortality or serious illness.

Existing sources of emissions at the landfill include stationary emissions and non-stationary (i.e., vehicular) emissions. Currently various management practices are used to control particulate emissions. Dust from haul roads and equipment operations is minimized by keeping the working face size restricted, watering, and by enforced speed limits on haul road. The access road is paved from the fee booth to the Phase I area. The roads are graded with a motor grader and asphalt grindings are spread and compacted on the road surface in an attempt to make them "all weather" haul roads. Reclaimed water is available and is used on roads and work areas. It is provided by a drop tank adjacent to the southeastern boundary of Phase II. Reclaimed water is sprayed on the roads from various water trucks as site conditions dictate. Per the EMS, no potable water is used except in emergencies. Mulch is spread across bare areas to prevent wind and water erosion.

The stationary sources are landfill gases (LFGs) that are created by the decomposition of waste at all landfills. The quantity of LFG generated depends primarily on the size, age, and moisture content of each disposal site. The quantity of pollutants emitted to the atmosphere depends on the amount of LFG generated and the efficiency of the landfill collection systems. The LFGs are either collected by the collection system, or emitted through the landfill surface. LFGs emitted

through the landfill surface are referred to as fugitive emissions. Fugitive emissions and flared emissions contain both criteria pollutants and TACs. Regulators will inspect monitoring data to determine if additional gas extraction wells or perimeter landfill gas monitoring probes may be required. Most of the LFG at WML is collected for use in the cogeneration plants (one located onsite near the biosolids center in the South Miramar area, and one located offsite, to the north near a water treatment facility operated by the City's Metropolitan Waste Water Department) or burned in the one of the two flares. The permitted flare stations are currently only used when the permitted cogeneration facilities are not operational, for example when an engine is down for maintenance. This currently occurs approximately once per month. When the LFG is flared, combustion byproducts are emitted and some pollutants are not completely destroyed because of the destruction efficiency of the flares. The existing LFG collection system, cogeneration facilities and flares meet the requirements of Best Available Control Technology (BACT) as defined in SDAPCD Rule 20.3.

The WML permit from the Air Pollution Control District (#971254) addresses emissions associated with the quarrying to increase landfill airspace, disposal of municipal solid waste, waste compaction, application of cover material, and haul road activities. Under a contract with a private company, the gas that is generated at the landfill is the property of that company. The company provides gas collection infrastructure, and combines the landfill gas with gas from another facility, the sludge drying facility, and uses these gases to generate electricity under permit number #96387B. There is also a separate permit (#96387A) for the flare stations used to control any methane not consumed by the gas company. Currently the amount of gas burned in the flares averages 219 scfm, while the amount used in the cogeneration facilities averages 4,345 scfm (URS, EIS/EIR Appendix D, Air Quality Report Appendix E, page 2). The flare station permit allows combustion of up to 6,000 scfm (two flares, each with a capacity of 3,000 scfm). The Proposed Project does not include any proposed changes to the flare stations or cogeneration facilities, or to the applicable APCD permits. There is sufficient capacity within the existing infrastructure to process all gas generated by the WML facility with or without to proposed height increase.

Table 3.3.2-2 provides the estimated existing criteria pollutant emissions from the landfill surface and flare stations at WML. As shown in Table 3.3.2-2, the existing, permitted flare stations are a major source of NO_x and the landfill itself is a major source of VOC due to fugitive emissions from the surface. Table 3.3.2-2 does not include emissions from the cogeneration facilities, which are operated by a private company.

Table 3.3.2-3 provides the existing TAC emissions for WML. The values shown are a combination of emissions from the landfill surface and flare stations. As shown in Table 3.3.2-3, the TAC emissions range from 8.6 pounds per year (formaldehyde) to 31,153.7 pounds per year (CO).

In addition to the criteria pollutant and TAC emissions outlined above, the landfill operations can result in detection of odors offsite. Landfill activities that may result in odor dissemination include contaminated waste transport, unloading operations, compaction activities, fugitive gas releases, and leachate evaporation. Additionally, green waste shredding, green waste storage, and green waste composting may result in odors; however, these green waste operations occur under a separate permit issued by the Local Enforcement Agency that is not currently being revised.

TABLE 3.3.2-2
Estimated Existing Emissions for Criteria Pollutants

Criteria Pollutant	Existing Emissions (lb/day)	Existing Emissions (tons/year)
Total Existing Emissions		
CO	85.83	15.66
NO_X	12.61	2.30
PM_{10}	3.15	0.58
SO_X	4.73	0.86
VOC	1,151.36	210.12
Flare Stations		
CO	0.50	0.09
NO_X	12.61	2.30
PM_{10}	3.15	0.58
SO_X	4.73	0.86
VOC	1.90	0.35
Landfill Surface (Fugitive Emissions)		
CO	85.33	15.57
NO_X	0.00	0.00
PM_{10}	0.00	0.00
SO_X	0.00	0.00
VOC	1,149.46	209.78

Source: URS Corporation (Table 4-8), 2005.

TABLE 3.3.2-3
Estimated Existing Emissions for TACs

	Baseline (lb/yr)	TAC	Baseline (lb/yr)
Acetone	3,211.7	Hexane	4,466.3
Acrylonitrile	2,649.4	Hydrogen Sulfide	9,543.5
Benzene	1,176.8	Methyl Chloroform (1,1,1-Trichloroethane)	505.3
Carbon Disulfide	3,48.3	Methylene Chloride (Dichloromethane)	9,585.3
Carbon Monoxide	31,153.7	Methyl Ethyl Ketone (2-Butanone)	4,032.9
Carbonyl Sulfide	232.2	Methyl Isobutyl Ketone	1,477.5
Chlorobenzene	222.1	Perchloroethylene (Tetrachloroethylene)	4,881.3
Chloroethane (Ethyl Chloride)	636.4	Toluene	28,560.9
Chloroform	28.3	Trichloroethylene	2,924.2
Ethyl Benzene	3,860.5	Vinyl Chloride	3,620.2
Ethylene Dichloride (1,2-Dichloroethane)	320.2	Xylene(s)	10,132.7
Ethylidene Dichloride (1,1-Dichloroethane)	1,835.4	Hydrochloric Acid	709.1
Fluorocarbons (chlorinated)	823.9	Formaldehyde	8.6

Source: URS Corporation (Table 4-12), 2005.

Onsite vehicular emissions consist primarily of NO_X and PM, with CO, VOC, and SO_X emitted in lesser amounts. PM emissions result from engine combustion and are also a result of traffic on haul roads.

Worker exposure to emissions is regulated by OSHA, and is minimized in the City by way of an Injury and Illness Prevention Plan, which is included as Appendix K of the JTD. In addition, staff has done independent monitoring for asbestos.

3.3.3 Biological Resources

Applicable Rules, Regulations, Policies, Guidelines

According to the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), impacts on biological resources are assessed through the CEQA review process, the Environmentally Sensitive Lands Ordinance, and through the review of the Proposed Project's consistency with the City's MSCP Subarea Plan (City of San Diego, 1998). The direct, indirect, and cumulative impacts of a project must be analyzed for significance, and the extent of "take" to sensitive species and habitats quantified. It is the policy of the City under the MSCP program to minimize all direct and indirect impacts on undisturbed habitats and sensitive species where practicable, and the Biology Guidelines provide guidance as to appropriate mitigation ratios. The site is not mapped within the MHPA; however, these standards were used to provide guidance on questions of significance in the analysis.

Existing Biological Resources

The Proposed Project would be located on top of the existing landfill, and would not include any impacts to previously undisturbed areas. Full-time staff biologists ensure that no high flying bird species that could cause an air-strike hazard with Marine aircraft, specifically sea gulls, are attracted to the landfill site. The existing WML site comprises 476 acres of the 807-acre leased WML area. Under the existing permit, all 476 acres will be subject to closure requirements, including establishment of final grade and vegetation design. A Closure Plan has been developed and approved, including drainage control and revegetation with native species; however, the Plan must be resubmitted to regulatory agencies two years prior to closure for potential modification before it becomes the final plan. Typically, revegetation densities necessary to prevent erosion are equal to or greater than natural plant cover densities in Southern California habitats, thus it is expected that the final revegetation would be with native plant species, but possibly at greater densities than in a more natural condition.

Regulatory agencies have required an update of this Closure Plan to accompany the proposal to increase the height of the landfill by a maximum of 20 feet. The only changes made to the Closure Plan as part of this Proposed Project are those required by the agencies to support the proposed height increase. The height has been increased, and the slopes have been designed to maximize capacity. The drainage has been modified accordingly. No changes to the revegetation plan have been made.

At the time of landfill closure the RWQCB, LEA, and/or California Integrated Waste Management Board may modify the plans as necessary to comply with laws that may be imposed between now and then. Thus the existing condition calls for the ultimate reworking of the entire landfill area, as required by regulatory agencies, to comply with laws that will be in place at the time of closure. It is not currently known exactly what those closure requirements will be. The Proposed Project would not change that requirement to submit and modify the

Closure Plan and recontour and revegetate the entire landfill at the time of closure. The Proposed Project would put that date off by approximately four years.

Under the Proposed Project, existing slopes would be retained in many cases, but would be built 15 to 20 feet higher. The actual direct footprint for grading impacts to vegetation associated with the Proposed Project covers 468 acres of the 476-acre landfill. Eight acres of existing slope would not be impacted by the Proposed Project, although the entire footprint of the landfill will be subject to closure in the future. Thus, 8 acres of "Tier II" habitat (per the City's Land Development Manual) would be avoided.

The 468-acre Proposed Project footprint is within the 476-acre manufactured landfill, but it is surrounded by a diverse coverage of native habitat to the south, east and west, including riparian scrub habitat in the San Clemente Canyon drainage system. Most of the surrounding area has intact and disturbed vegetation, and supports a high diversity of flora and fauna (Figure 9).

The entire Proposed Project site is a manufactured landfill surface, but dirt has been used as a cover material, and the surface can be evaluated for habitat value. A majority of the Proposed Project area is characterized by disturbed or developed habitats. Small portions of the landfill have been revegetated with native and non-native vegetation as they have become inactive in order to resist erosion. Most of the site is characterized as disturbed habitat and developed land, but six acres (one percent) of the site now supports six vegetation communities: chamise chaparral, coastal sage scrub, disturbed coastal sage scrub, southern mixed chaparral, and disturbed eucalyptus woodland (Figure 9).

Habitat Types

"Developed areas" support nonnative vegetation because of the presence of buildings or roads. The level of soil disturbance on this site is so great that many developed areas support no plants at all. Because it is subject to ongoing operations, most areas have not received soil cover that can support most plant communities. In the developed areas, only ruderal plant species are present, such as *Salsola tragus* (Russian thistle), *Melilotus* (sweet clover), *Malva parviflora* (cheese weed) and *Hordeum murinum* (foxtails). Within the Proposed Project site these developed areas include most of the active landfill, areas supporting structures, and associated access roads.

Developed areas cover 276 acres. Combined, the disturbed and developed areas of the site cover 462 acres, or 99% of the area, with small patches of reestablished vegetation in the remaining 1% of the area. "Disturbed habitat" is a Tier IV habitat according to the City of San Diego's classification system. It is land on which the native vegetation has been significantly altered by land-clearing activities such that the species composition and site conditions are not characteristic of the disturbed phase of a defined plant association (e.g., disturbed coastal sage

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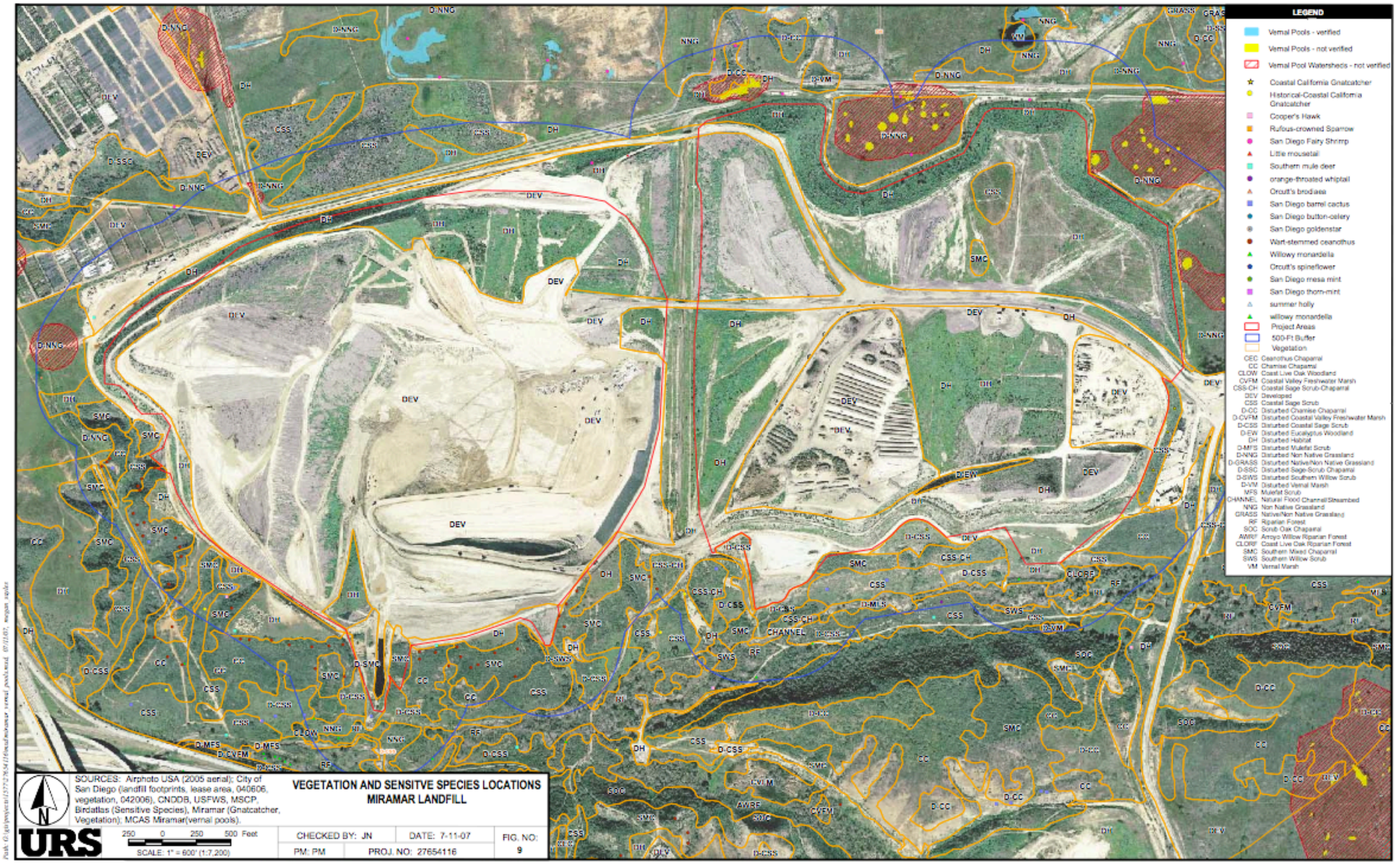
Figure 9 - Habitats and Sensitive Species



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scrub). Such habitat is typically found in vacant lots, roadsides, abandoned fields or previously graded lands, and is dominated by non-native annual and perennial broadleaf species. Much of the area (185 acres) within the Proposed Project footprint has been sparsely colonized by species characteristic of disturbed habitat, including areas that have been revegetated with non-native ornamental species.

"Southern mixed chaparral" is a Tier III habitat according to the City of San Diego's classification system. It usually occurs on steeper, more mesic north-facing slopes than chamise chaparral. This vegetation community type is characterized by relatively high species diversity. Species occurring within the Proposed Project area include wart-stemmed ceanothus (*Ceanothus verrucosus*), black sage (*Salvia mellifera*), Yerba Santa (*Eriodictyon crassifolium*), chamise (*Adenostoma fasicicuatum*), coast spine bush (*Cneoridium dumosum*), blue dicks (*Dichelstemma capitatum*), and toyon (*Hertomeles arbutifolia*). Approximately 4.52 acres of vegetation characteristic of southern mixed chaparral are contained within the footprint of the Proposed Project.

"Coastal sage scrub" is a Tier II habitat according to the City of San Diego's classification system. It is comprised of low, soft-woody subshrubs to about 1 meter (3 ft) high, many of which are facultatively drought-deciduous. Dominant shrub species in this vegetation type may vary, depending on local site factors and levels of disturbance. Dominant species within coastal sage scrub locations on the northeast side of the Proposed Project area include California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), deerweed (*Lotus scoparius*), and black sage (*Salvia mellifera*). Coastal sage scrub vegetation has colonized a very small component of the Proposed Project site, comprising 2.36 acres within the Proposed Project footprint.

"Eucalyptus woodland" is a Tier IV habitat according to the City of San Diego's classification system. It is characterized by dense stands of gum trees (*Eucalyptus* spp.). Gum trees naturalize readily and, where they form dense stands, tend to completely supplant native vegetation, greatly altering community structure and dynamics. Very few native plants are compatible with eucalyptus. The disturbed eucalyptus stands on the Proposed Project site contain a mixture of small eucalyptus trees, acacia (*Acacia baileyana*), and lemonade berry (*Rhus integrifolia*) and cover approximately 1.0 acres.

"Chamise chaparral" is a Tier III-A habitat according to the City of San Diego's classification system. It is characterized by nearly monotypic stands of chamise (*Adenostoma fasciculatum*) to 1-3 m (3-9 ft) in height. Additional shrub species, such as deerweed (*Lotus scoparius*) and broom baccharis (*Baccharis sarathroides*) are also present in this community. This habitat type is very limited within the Proposed Project area, comprising 0.07 acres within the Proposed Project's footprint.

Sensitive Plants

No resident sensitive plant species are located within the Proposed Project's footprint (Table 3.3.3-1). The area surrounding the Proposed Project site supports several sensitive plant and animal species (list provided in Appendix E), including four plants that are considered by the California Native Plant Society to be seriously endangered in California, although they are not listed by the state or federal agencies as threatened or endangered: little mousetail (*Myosurus minimus* ssp. Apus), Orcutt's brodiaea (*Brodiaea orcuttii*), San Diego barrel cactus (*Ferocactus viridescens*), San Diego goldenstar (*Muilla clevelandii*), and wart-stemmed ceanothus (*Ceanothus verrucosus*). None of these species occurs in the Proposed Project footprint, and none would be impacted by the Proposed Project. Also present in the area surrounding the Proposed Project site are two plants that are listed by the state and federal government as endangered: willowy monardella (*Monardella linoides viminea*), San Diego mesa mint (*Pogogyne abramsii*). These species are not within the Proposed Project footprint. No areas that support mesa mint receive any drainage from the Proposed Project site.

Sensitive Animals

Sensitive animals in the vicinity, though also not within the Proposed Project footprint, include species of concern such as California horned lark (*Eremophila alpestris*), northern harrier (*Circus cyaneus*), southern California rufous-crowned sparrow, (*Aimophila ruficeps* canescens), and government-listed animals, such as the endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*), and the threatened California gnatcatcher (*Polioptila californica*).

Of these species, the only one located near the existing landfill is the California gnatcatcher (*Polioptila californica*). Despite ongoing noise, this species has entered a revegetated area just east of the Proposed Project footprint. No changes to the existing condition of the area are proposed. No California gnatcatchers have been detected in coastal sage scrub or disturbed coastal sage scrub within the Proposed Project footprint. California gnatcatcher is listed federally threatened under the Endangered Species Act. Protocol surveys for California gnatcatcher performed in the Proposed Project's footprint in June 2006 were negative.

Additionally, the 1994 EIS/EIR identified no unacceptable noise impacts from the WML area on wildlife. However, since 1994 nesting sites may have shifted, and gnatcatchers may occur closer to the Proposed Project site in some years than in others. Surveys conducted according to US Fish and Wildlife Service protocols identified no gnatcatchers within the Proposed Project's footprint; however field staff are aware of territories nearby (see Figure 9). In the 1994 EIS/EIR, for projects near or in gnatcatcher territories, biological monitoring and onsite measures to time construction activities outside of the nesting season and locate staging areas away from nests was considered to mitigate potential impacts.

Staff biologists continue to monitor the site, including WML, and adjustments in landfill operations are made as necessary for the various goals of the staff, including gnatcatcher habitat

protection and enhancement. Furthermore, the Marine Corps INRMP identifies gnatcatcher habitat areas necessary for the protection of this species on the base. These areas do not include the WML. Thus, there is no change in this existing condition.

No wildlife corridors can develop on the landfill surface because of the scarcity of vegetation. The east-west canyon that occurs south of the landfill likely functions as a habitat linkage in the Proposed Project's vicinity. Noise-sensitive habitats include adjacent areas supporting California gnatcatchers.

TABLE 3.3.3-1
Likelihood of Occurrence of Sensitive Species within Proposed Project Footprint

Sensitive Species	Likelihood of Occurrence
Little mousetail	Not present
Orcutt's brodiaea	Not present
San Diego barrel cactus	Not present
San Diego goldenstar	Not present
Wart-stemmed ceanothus	Not present
Willowy monardella	Not present
San Diego mesa mint	Not present
California horned lark	Not present
Northern harrier	Not present
Southern rufous-crowned sparrow	Not present
San Diego fairy shrimp	Not present
California gnatcatcher	Not present

Source: John Howard, City of San Diego, Environmental Services Department.

3.3.4 Geologic Conditions

Applicable Rules, Regulations, Policies, and Guidelines

Title 27 of the California Code of Regulations requires that municipal solid waste landfills be designed with appropriate slope stability, and to resist damage from an earthquake. Modifications to the existing Joint Technical Document have been required by the LEA and RWQCB, in part to show that the proposed slopes are engineered to the necessary standards. The Joint Technical Document is included in this analysis by reference, and the key points have been excerpted in this EIR.

Existing Conditions

San Diego lies in the coastal plain section of the Peninsular Ranges geomorphic province, which is characterized by elongated, northwest-trending mountains that extend from the Los Angeles Basin south into Baja California, and by a coastal plain which flanks the mountains. The mountain ranges consist of pre-Cretaceous intrusive rocks locally overlain by younger sedimentary and volcanic rocks. The coastal plain section consists of Tertiary sedimentary rocks that were eroded by wave action and then covered by a thin sequence of Quaternary near-shore and beach deposits. These sedimentary rocks were then dissected to form the mesas and terraces present today.

The geologic units present in San Diego consist of a succession of Late Cretaceous, Eocene, Pliocene, Pleistocene and Holocene sedimentary rocks that rest on Mesozoic metamorphic and plutonic basement rocks. Bedrock units within and adjacent to the site include, in ascending age, the Scripps Formation, Friars Formation, Stadium Conglomerate and Linda Vista Formations. Sedimentary rocks of the middle Eocene Scripps Formation comprise the oldest strata in the Proposed Project area and are exposed only along the walls of San Clemente Canyon southwest of the site and within tributary canyons west of the site. The Scripps Formation consists of pale-yellowish brown medium-grained sandstone with occasional cobble-conglomerate interbeds. Within the Proposed Project area, the Scripps Formation overlies older Eocene strata. The middle to late Eocene Friars Formation overlies the Scripps Formation and forms the uppermost unit of the La Jolla Group. Within the Proposed Project area, Friars Formation rocks are exposed within the walls of the San Clemente Canyon south of the site. The Friars Formation rocks are massive, yellow gray medium-grained sandstone interbedded with dark greenish gray sandy claystone. The late Eocene Stadium Conglomerate overlies the Friars Formation and is the oldest formation of the Poway Group.

The dominant bedrock exposed in the area are non-marine conglomerates and sandstones of the Stadium Conglomerate, which are evident in canyon side slopes and artificial quarry slopes with over 100 feet of vertical exposure in many locations. As exposed in this area, the Stadium Conglomerate is characterized by a massive, well rounded cobble conglomerate with a dark, yellowish-brown fine to course-grained silty sandstone matrix. Gravel and cobble clasts within the sandstone matrix range in size from one inch to one foot in diameter, with an average clast

size of approximately three inches. The ratio of gravel and cobbles to sand matrix varies widely within the formation with some areas being clast supported and other intervals consisting of sandstone devoid of cobbles. Discrete conglomerate and/or sandstone intervals are, in general, laterally discontinuous with many of these discrete intervals truncated abruptly or pinching out laterally in a relatively short distance.

Where landfill activities have not occurred, the Stadium Conglomerate is overlain by an approximately five- to 10-foot thick mantle of surficial deposits. Terrace deposits are easily recognized by their distinctive reddish-brown color and relative resistance to erosion. The composition of the terrace deposits varies widely from a sandy clay to a clayey silt and silty sand, most of which contain significant interbeds of gravel and cobbles. In many locations on the site, a one- to three-foot thick layer of well cemented tan sand and silt (locally referred to as hard pan) has been reported in excavations at a depth of four to five feet below the ground surface. Additionally, relatively thin alluvial deposits are located along the bottoms of active drainage courses and are typically composed of a mixture of silt, sand, and gravel weathered from older formational materials.

Artificial fills on the site consist of refuse fill and stockpile and structural fills composed of inert soils. Stockpiled fill material is generally composed of an unsorted mixture of cobbles, gravel, and fine-to-coarse silty sand which has been generated from excavation of materials from the Terrace Deposits and Stadium Conglomerate. Stockpiled fill material is currently used as daily and intermediate cover in landfilling operations.

No active or potentially active faults are known to exist at or near the WML. Minor offsets of Stadium Conglomerate beds at the site are thought to have resulted from older faulting or differential slumping during deposition. No Alquist-Priolo Special Studies Zones are present at or near the site. Although faults capable of generating frequent, very large earthquakes are distant from the site, local active faults also produce moderate to large earthquakes at the WML. Relative movements of the North American and Pacific plates control the faulting and seismicity in southern California. This movement occurs along the San Andreas Fault System, a 140-mile-wide zone of strike-slip faults that extends northwest from the Gulf of California to the coast north of San Francisco. Major faults in this system include the San Jacinto and Elsinore Fault zones and the San Gabriel, Palos Verdes, Rose Canyon, Coronado Bank, San Diego Trough, San Clemente, Newport-Inglewood, and Palos Verdes Faults. Also present are the smaller Earthquake Valley and San Joaquin Hills Faults. All of these structures are considered active and capable of generating significant earthquakes. None of these faults actually passes through or near the WML. The closest such fault, the Rose Canyon Fault, is about 8.2 kilometers, or 5.0 miles, from the landfill. The maximum moment magnitudes for active faults within 100 kilometers of the WML range from 6.5 to 7.6.

The largest earthquake on record (Magnitude 6.7) occurred in 1892 near Live Oak Springs in southeast San Diego County, about 82 kilometers east-southeast of the WML (unknown fault). The second-largest earthquake, an M6.5 event in 1800, may have occurred on an offshore fault (possibly the Rose Canyon Fault) about 20 kilometers northwest of the WML. Other earthquakes exceeding M6.0 include an M6.3 event in 1892, about 97 kilometers to the east-southeast (San Jacinto Fault), and an M6.0 event in 1910, about 96 kilometers to the north near

Lake Elsinore (Elsinore Fault). In recent years, several seismic events have occurred offshore of north San Diego County. The largest of these was the July 1986 Oceanside earthquake (M5.8). Another earthquake of M5.3 took place on the San Clemente Fault in June 2004.

Other seismic hazards such as liquefaction, lateral spreading, and seismically-induced settlement, are not credible causes of significant damage at WML. These hazards generally require the presence of relatively loose, granular, saturated soils in the subsurface, in addition to strong ground motion. The landfill excavation penetrates clayey and sandy terrace deposits into bedrock of the Stadium Conglomerate and terminates well above the groundwater table. Under these conditions, significant liquefaction, lateral spreading, or seismically-induced settlement are very unlikely.

3.3.5 Health and Safety

Applicable Rules, Regulations, Policies, and Guidelines

As explained in the Purpose and Need Section of this report, the purpose of landfills is to manage solid waste in a way that promotes health and safety. Laws prescribing landfill engineering techniques are intended to ensure that Class III sanitary landfills provide daily cover and other measures to control disease vectors, such as mosquitoes and flies, and require load-checking programs, to ensure that hazardous materials do not enter these facilities. The Resource Conservation Recovery Act (RCRA), subtitle D is the most significant of the laws prescribing how landfill operations will be conducted in order to protect public health and safety, along with Title 27 of the California Code of Regulations (CCR).

Existing Conditions

The WML is a permitted landfill, and as such, complies with current laws and regulations ensuring that the facility is operated safely. The implementation of the mitigation measures in the EIS/EIR for the GDP was determined to reduce potential impacts to below a level of significance.

Since the date of certification of the EIS/EIR for the GDP, the Household Hazardous Waste collection facility has been developed near the entrance to the landfill. This facility is designed to provide a convenient location for households and small businesses to take their hazardous waste, such as un-used paints and other household products, This facility helps reduce the likelihood of inappropriate materials entering the landfill.

The Miramar Landfill as a "Class III landfill" is permitted to accept non-hazardous residential and commercial refuse. The Miramar Landfill accepts treated wood waste, non-friable asbestos, contaminated soil, and industrial solids after approval and scheduling with an inspector from the landfill load check program.

The Miramar Landfill staff originally implemented a Hazardous Waste Exclusion Program (Program) in October 1991 to comply with state regulations under 27 CCR, §20870. The load check component of the Program contains the following major elements:

- Random inspections of incoming loads to ensure loads do not contain unacceptable wastes, including regulated hazardous wastes or PCB wastes.
- Records of inspections.
- Training of facility personnel including recognition of unacceptable wastes.
- Notification to the Certified Unified Program Agency (CUPA) if regulated hazardous wastes or PCB wastes are discovered at the facility.

Program inspectors are on duty on Miramar Landfill's 361 operational days per year. They conduct inspections and provide spill response, special waste acceptance, and other hazardous waste diversion related activities.

The initial step in the load check program consists of a visual screening of all incoming vehicles at the scales. Scale house personnel look for any indication of potentially unacceptable wastes. If suspicious loads are encountered, Program inspectors are alerted. The inspector determines if the waste is acceptable.

Spotters are also located at the tipping areas to observe waste as it is unloaded. In addition, the equipment operators are trained in the identification of potentially unacceptable wastes. Spotters alert Program inspectors if potentially unacceptable wastes are encountered. The inspectors identify the responsible party.

In addition to the initial screening, Program inspectors select loads for inspection. Inspections are conducted in all tipping areas – commercial, public, greens, and demolition. Commercial waste loads chosen for inspection are directed to unload the wastes in a designated area. The driver is instructed to pull forward while discharging the waste, resulting in the formation of a long, narrow row of trash. The inspectors then tear down the row of trash, using a rake and/or other hand tool. In public hand-unload areas, inspectors visually inspect vehicles and monitor waste unloading for the presence of prohibited wastes. For all inspections, information and observations are recorded on an inspection form. If necessary, photographs and samples are taken.

If prohibited wastes are identified, the driver/responsible party is notified that the wastes cannot be accepted and information on proper waste disposal is provided. In some cases, the load may be detained pending regulatory agency inspection. A Notice of Violation may be issued to the responsible party. Specific types of incidents are also reported to the LEA and the CUPA. If the generator of the hazardous or unacceptable wastes cannot be identified, the inspector segregates and stores the waste and arranges for appropriate disposal in accordance with regulatory requirements.

Program inspectors inspect waste loads for all types of unacceptable waste including universal wastes (UW) such as electronics, computers, televisions, household batteries, light bulbs, and mercury containing devices. UW has not been accepted for disposal in Class III landfills since an exemption for these materials expired on February 8, 2006. Prior to the sunset of the UW exemption, flyers were given out at the landfill scales to all customers informing them that effective February 9, 2006 disposal of any quantity of UW in the landfill would be prohibited.

Program inspectors allowed landfill customers who had not yet been informed of the prohibition on disposing of UW a grace period. For approximately seven months, Program inspectors accepted UW commingled in waste loads brought to the landfill. Inspectors educated drivers and generators on proper UW disposal, and packaged the wastes accepted through this temporary

courtesy acceptance program for proper recycling/disposal. Loads containing regulated electronics, including computers, and televisions were referred to the recycling center located adjacent to the landfill entrance.

3.3.6 Cultural Resources

Applicable Rules, Regulations, Policies, and Guidelines

The City of San Diego's Land Development Code contains Historical Resources Regulations (City of San Diego, 2001). The purpose and intent of those regulations is to protect, preserve and, where damaged, restore the historical resources of San Diego. The regulations apply to all proposed development within the City of San Diego over which the City has jurisdiction, particularly when the historical resources meet the definitions contained in Chapter 11, Article 3, Division 1 of the Code. The following sources are used to help evaluate the significance of historical resources: the National Register of Historic Places, California Environmental Quality Act (CEQA), City of San Diego Progress Guide and General Plan, City of San Diego Historical Resources Register, and the City of San Diego CEQA Significance Determination Guidelines.

According to the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), a significant historic resource is eligible or potentially eligible for the National Register of Historic Places, or one which qualifies for the California Register of Historical Resources or is listed in a local historic register or deemed significant in a historical resource survey, as provided under Section 5024.1(g) of the Public Resources Code. A resource that is not listed in, or determined to be eligible for listing in, the National Register of Historic Places, the California Register of Historic Resources, not included in a local register of historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant for purposes of CEQA if the site has unique or special attributes.

Section 15064.5 of the State CEQA Guidelines describes a substantial adverse change in the significance of a historical resource as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Further, a resource is "materially impaired" if it is demolished or materially altered.

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires federal agencies to consider the effects of their undertakings on historic properties. They must provide the Advisory Council on Historic Preservation a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations (36 CFR Part 800), which became effective January 11, 2001. These regulations require that the federal agency determine whether it has an undertaking that is a type of activity that could affect historic properties. If it is an undertaking that could affect historic properties, then the agency reviews background information, consults with the State Historic Preservation Officer (SHPO) and others, seeks information from knowledgeable parties, and conducts additional studies as necessary. Districts, sites, buildings, structures, and objects listed in the National Register are considered; unlisted properties are evaluated against the National Park Service's published criteria, in consultation with the SHPO and any Indian tribe or Native Hawaiian organization that may attach religious or cultural importance to them. If, after this research, the agency finds that

no historic properties are present or affected, it provides documentation to the SHPO and, barring any objection in 30 days, proceeds with its undertaking. If the agency finds that historic properties are present, it proceeds to assess possible adverse effects. If the agency and SHPO agree that there will be no adverse effect, the agency proceeds with the undertaking and any agreed-upon conditions. If they find that there is an adverse effect, or if the parties cannot agree and ACHP determines within 15 days that there is an adverse effect, the agency begins consultation to seek ways to avoid, minimize, or mitigate the adverse effects.

Existing Conditions

The site is located exclusively within the footprint of the existing WML. The site is entirely underlain by waste deposited at the site since initiation of operations. Thus, there are no historic or archeological resources within the footprint of the site that would be disturbed by deposition of additional layers of waste.

3.3.7 Paleontological Resources

Applicable Rules, Regulations, Policies, and Guidelines

According to the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), impacts to paleontological resources may occur through grading activities associated with Proposed Project construction. Appendix G of the State CEQA Guidelines suggests that destruction of "unique" paleontological resources onsite may have a significant impact.

Existing Conditions

The project site is underlain by the following formations, which are listed from low to high sensitivity for paleontological resources: Scripps, Friars, Stadium Conglomerate, terrace deposits, alluvium, and slopewash. The potential for finding resources within these formations varies; however, the project would result in no disturbance, grading, or excavation outside the existing footprint of the landfill or into these formations. Although a significant amount of waste would be imported, and soils already stockpiled onsite would be moved, no intact paleontological formations would be disturbed. The 1980 EIR determined that the original landfill had no impacts to paleontological resources. The type of material underlaying the site was of high mineral value as aggregate, and so was extracted. The Proposed Project would not disturb any soil that has not already been subject to landfill operations. There would be no change in the existing condition regarding impacts to this type of resource.

The site is located exclusively within the footprint of the existing WML. The site is entirely underlain by waste deposited at the site since initiation of operations. No excavation of this material is proposed. The Proposed Project would lay additional waste over the surface of existing waste. No disturbance of paleontological resources would occur.

3.3.8 Mineral Resources

Applicable Rules, Regulations, Policies, and Guidelines

According to the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), a project that would result in the loss of availability of a significant mineral resources (i.e., classified as Mineral Resource Zone (MRZ) 2 by the California Department of Conservation) may be considered to have a significant impact on mineral resources.

Existing Conditions

Prior to commencement of fill operations at WML, aggregate resources meeting the classification of MRZ2 were excavated by a private contractor. Usable materials were exported from the site, and the residual material has been used onsite in the liner system and as a cover material.

3.3.9 Noise

Applicable Rules, Regulations, Policies, and Guidelines

The City of San Diego Noise Ordinance (San Diego Municipal Code, Chapter 5, Article 9.5) focuses on non-transportation-related noise generators and provides standards that regulate outdoor site, indoor, and construction-related noise levels. The Ordinance establishes one-hour average (L_{eq}) limits for residential, commercial, industrial, and agricultural land uses by time of day. Industrial uses are prohibited from generating noise that exceeds 75 dB L_{eq} at the property line at any time during the day. Developments that would expose commercial or residential receptors to new, unacceptable noise levels are considered to have impacts.

The City of San Diego, through its noise ordinance (Section 59.5.0401) has established property line sound levels limits for various land use zones. The applicable sound level limit is determined by the land use zone and the time of day. The noise subject to the limits is that part of the total noise at the specified location that is due solely to the action of the noise generator. The sound level limits are summarized in Table 3.3.9-1.

TABLE 3.3.9-1
City of San Diego Sound Level Limits

Zone	Time	Applicable Limit One-Hour Average Sound Level (Decibels)
Single Family Residential	7:00 a.m. – 7:00 p.m. 7:00 p.m. – 10:00 p.m. 10:00 p.m. – 7:00 a.m.	50 45 40
Multifamily Residential (Maximum Density of 1/2000)	7:00 a.m. – 7:00 p.m. 7:00 p.m. – 10:00 p.m. 10:00 p.m. – 7:00 a.m.	55 50 45
All other residential	7:00 a.m. – 7:00 p.m. 7:00 p.m. – 10:00 p.m. 10:00 p.m. – 7:00 a.m.	60 55 50
Commercial	7:00 a.m. – 7:00 p.m. 7:00 p.m. – 10:00 p.m. 10:00 p.m. – 7:00 a.m.	65 60 60
Industrial and Agricultural	Anytime	75

Source: City of San Diego Noise Ordinance, Section 59.5.0401.

The U.S. Department of Housing and Urban Development (DHUD) limits noise levels at new housing construction sites being considered for federal funding or subsidy. These regulations are found in 24 CFR 51, Subpart B. DHUD-acceptable day-night average exterior sound levels (L_{d-n}) within proposed housing sites are those that do not exceed 65 dB (24 CFR 51, Subpart B,

Sec. 55.103). The agency's goals for interior sound levels are 45 dB L_{d-n}. Typically, standard frame construction result in interior sound level decreases of 15 dB.

Existing Conditions

As explained in the EIS/EIR for the General Development Plan of the landfill, "the pre-landfill noise environment would have been quiet, averaging 35 to 45 dBA, with the exception of occasional aircraft overflight. . . ." However, since that time, freeways and commercial and industrial development have been added to the area. Now, "[t]he noise environment near the Miramar Landfill GDP area is dominated by vehicular traffic on I-805 and SR 52, flight operations . . ., and current landfill operations." Traffic noise was estimated at 75 Community Noise Equivalent Level (CNEL) on portions of the landfill closest to the freeway. Station aircraft operations were estimated at more than 65 CNEL.

Worker exposure to noise is regulated by OSHA, and is minimized in the City by way of an Injury and Illness Prevention Plan, which is included as Appendix K of the JTD.

3.3.10 Traffic

Applicable Rules, Regulations, Policies, and Guidelines

The City of San Diego Circulation element provides rankings of acceptable levels of service, as shown in Table 3.3.10-1.

TABLE 3.3.10-1
LOS Standards for Roadways

Roadway Functional Classification	LOS				
	A	B	C	D	E
Expressway (6-lane)	< 30,000	< 42,000	< 60,000	< 70,000	< 80,000
Prime Arterial (6-lane)	< 25,000	< 35,000	< 50,000	< 55,000	< 60,000
Major Arterial (6-lane, divided)	< 20,000	< 28,000	< 40,000	< 45,000	< 50,000
Major Arterial (4-lane, divided)	< 15,000	< 21,000	< 30,000	< 35,000	< 40,000
Secondary Arterial/Collector (4-lane w/ center lane)	< 10,000	< 14,000	< 20,000	< 25,000	< 30,000
Collector (4-lane w/o center lane)	< 5,000	< 7,000	< 10,000	< 13,000	< 15,000
Collector (2-lane w/ continuous left-turn lane)					
Collector (2-lane no fronting property)	< 4,000	< 5,500	< 7,500	< 9,000	< 10,000
Collector (2-lane w/ commercial fronting)	< 2,500	< 3,500	< 5,000	< 6,500	< 8,000
Collector (2-lane multi-family)					
Sub-Collector (2-lane single-family)	-	-	< 2,200	-	-

Source: Traffic Impact Study Manual, City of San Diego, July 1998.

Chapter 16 of the *Highway Capacity Manual (HCM) 2000, Transportation Research Board Special Report 209* provides LOS rankings for intersections, as shown in Table 3.3.10-2.

TABLE 3.3.10-2
LOS Standards for Intersections

Average Control Delay	LOS Characteristics
<10	*LOS A* has a low delay, progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
>10– 20	*LOS B* has good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
>20 – 35	*LOS C* has some delays, fair progression and/or longer cycle lengths. Individual cycle failures may occur. Many vehicles stop, although many still pass through the intersection without stopping.
>35– 55	*LOS D* has high delay, because of unfavorable progression, long cycle lengths, or high volumes. Congestion and individual cycle failures are noticeable.
>55 – 80	*LOS E* is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80	*LOS F* has excessively high delay, considered unacceptable to most drivers. This condition often occurs when LOS D at the intersection is exceeded. Poor progression and long cycle lengths may be contributing causes.

Source: Highway Capacity Manual (HCM) 2000, TRB Special Report 209.

Topic 406 of the *Caltrans Highway Design Manual* (HDM), 5th Edition provides rankings of on and off ramps, as shown in Table 3.3.10-3.

TABLE 3.3.10-3
LOS Standards for Ramps

Threshold, ILV/hr	Description
<1200: (Under Capacity)	Stable flow with slight, but acceptable delay. Occasional signal loading may develop. Free midblock operations.
1200-1500: (At Capacity)	Unstable flow with considerable delays possible. Some vehicles occasionally wait two or more cycles to pass through the intersection. Continuous backup occurs on some approaches.
>1500: (Over Capacity)	Stop-and-go operation with severe delay and heavy congestion(1). Traffic volume is limited by maximum discharges rates of each phase. Continuous backup in varying degrees occurs on all approaches. Where downstream capacity is restrictive, mainline congestion can impede orderly discharge through the intersection.

Notes: (1) The amount of congestion depends on how much the ILV/hr value exceeds 1500. Observed flow rates will normally not exceed 1500ILV/hr, and the excess will be delayed in a queue.
Source: Caltrans Highway Design Manual 5th Edition, Topic 406.

Existing Conditions

In the years since State Route 52 was constructed, after development of the Miramar Landfill, addition development in the Kearny Mesa area has increased traffic congestion on surface streets, the freeway, and freeway ramps. As shown in Table 3.3.10-4, all five road segments in the vicinity are currently operating at LOS D worse. The existing conditions include the community that has grown up in the area, freeway traffic, traffic associated with the landfill at its current permitted level of 8,000 tons per day, and 2,000 trips per day going for disposal at the landfill, and an additional materials that are not disposed within the landfill, including, for example, in FY 05 99,507 tons of diverted materials and 37,116 tons of clean fill. An average of 4,476 tons per day is diverted to beneficial uses. All of the existing traffic, including traffic bearing waste to be disposed of at WML, plus traffic for diverted materials, is considered in the existing conditions. A traffic impact study is included in Appendix F.

TABLE 3.3.10-4
Existing Roadway LOS

Street	Segment	Cross-Section	Capacity	Volume	V/C	LOS
Convoy Street	Between SR-52 WB Ramps and SR-52 EB Ramps	3-Lane	15,000	17,167	1.144	**F**
	Between SR-52 EB Ramps and Copley Park Pl	4-Lane	30,000	32,453	1.082	**F**
	Between Copley Park Pl and Convoy Ct			22,393	0.746	D
	Between Convoy Ct and Clairemont Mesa Blvd			22,973	0.766	D
	Between Clairemont Mesa Blvd and Raytheon Rd			28,617	0.954	**E**

Source: Wilson & Company, Inc., May 2006.

Table 3.3.10-5 shows that all of the intersections investigated in the vicinity of the Proposed Project are currently operating at acceptable LOS D or better.

TABLE 3.3.10-5
Existing Peak Hour Intersection LOS

Intersection	AM		MD		PM	
	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
Convoy St / SR-52 WB ramps	53.7	D	48.8	D	33.9	C
Convoy St / SR-52 EB ramps	52.1	D	24.6	C	37.4	D
Convoy St / Copley Park Pl	10.9	B	15.7	B	16.9	B
Convoy St / Convoy Ct	28.6	C	33.5	C	33.3	C
Convoy St / Clairemont Mesa Blvd	29.2	C	46.6	D	39.3	D

Source: Wilson & Company, Inc., May 2006.

As shown in Table 3.3.10-6, the westbound SR-52 ramp intersection is currently operating "At Capacity" in the AM peak hour and the eastbound SR-52 ramp intersection is operating "At Capacity" during the PM peak hour with a potential for unstable flow and considerable delays during these times. All other peaks for both ramp intersections are operating "Under Capacity" with stable flow and slight delay.

TABLE 3.3.10-6
Existing Ramp Service Rating

Intersection	Peak Hour	ILV / Hour	Description
Westbound SR-52 / Convoy Street	AM	1,222	*1200-1500: (At Capacity)*
	MD	1,167	*<1200: (Under Capacity)*
	PM	1,133	*<1200: (Under Capacity)*
Eastbound SR-52 / Convoy Street	AM	1,042	*<1200: (Under Capacity)*
	MD	973	*<1200: (Under Capacity)*
	PM	1,282	*1200-1500: (At Capacity)*

Source: Wilson & Company, Inc., May 2006.

As shown in Table 3.3.10-7, potential queuing issues currently exist at the Convoy Street / SR-52 eastbound ramps (the northbound right-turn queues exceed the storage capacity during the PM peak period) and at the Convoy Street / Convoy Court intersection (existing queues exceed storage capacity at the northbound left-turn lane during the AM, Midday (MD), and PM peak hours; and at the southbound left-turn lane during the AM and MD peak hours).

TABLE 3.3.10-7
Existing Ramp Queuing

Intersection	Movement	Available Storage (feet)	Queue Length (feet)			Sufficient Storage?		
			AM	MD	PM	AM	MD	PM
Convoy St / SR-52 EB ramps	NBR	410	70	79	471	Yes	Yes	**No**
Convoy St / Copley Park Pl	NBL	85	46	54	27	Yes	Yes	Yes
Convoy St / Convoy Ct	NBL	70	235	290	83	**No**	**No**	**No**
	SBL	90	175	158	79	**No**	**No**	Yes
Convoy St / Clairemont Mesa Blvd	NBL	250	91	224	155	Yes	Yes	Yes
	SBL	275	63	138	111	Yes	Yes	Yes

Source: Wilson & Company, Inc.; April 2006.

Table 3.3.10-8 shows that the segment of SR-52 to the east of Convoy Street currently operates at an unacceptable level.

TABLE 3.3.10-8
Existing Freeway Segment LOS

Freeway	Segment	ADT	Peak Hour Volume	Lanes Per Direction	% HV	Volume (pc/h/ln)	LOS
SR-52	West of Convoy Street	106,000	9,300	3	3.1%	1,739	C
	East of Convoy Street	125,000	11,900	3	3.1%	2,225	E

Source: Wilson & Company, Inc., April 2006.

3.3.11 Public Services and Facilities

Applicable Rules, Regulations, Policies, and Guidelines

According to CEQA Guidelines, Appendix G, a project may be deemed to have a significant impact to public services and facilities if the project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services (fire protection, police protocol, schools, parks, or other public facilities).

Existing Conditions

Public services required by this facility include inspection by the Local Enforcement Agency, which charges cost-recoverable fees for this service. The landfill operations augment other public services. Personnel and equipment can be and have been used as part of the City's overall emergency response in the event of a disaster, for example by using the equipment to suppress fires and/or manage debris. Landfill personnel have also assisted San Diego police with investigations.

3.3.12 Public Utilities

Applicable Rules, Regulations, Policies, and Guidelines

Projects may be considered to have an impact if they would construct or alter public utilities, such as sewage service, electricity, or solid waste.

Existing Conditions

All utilities, such as water connections, have already been provided. The facility is also used to provide green power for City operations and to San Diego Gas and Electric. A cogeneration plant located near South Miramar takes gas from the landfill, and gas from a biosolids treatment plant and generates electricity onsite. A second generation plant takes gas from the landfill and powers a City water reclamation plant. The facility also minimizes water consumption, by recycling leachate for use as dust suppression, and by using reclaimed water for compost production.

3.3.13 Landform Alteration/Visual Quality

Applicable Rules, Regulations, Policies, Guidelines

A. Federal

- **Integrated Natural Resources Management Plan, MCAS Miramar, May, 2000** –The purpose of this plan is to integrate MCAS Miramar's land use needs, in support of the military mission, with the management and conservation of natural resources. Although there are no specific policies relating to visual resource protection, the intent of the plan states that natural resources within MCAS Miramar must be protected and maintained.
- **Base Exterior Architectural Plan, MCAS Miramar, 1999** – This plan provides detailed architectural requirements and aesthetic values for MCAS Miramar. The aesthetic values include, but are not limited to, the type of lighting fixtures, the colors of paint, the heights of signage, and the general appearance of all aspects of development within MCAS Miramar.
- **National Environmental Policy Act (NEPA)** – The visual regulatory guidelines included in NEPA ensure that environmental considerations, such as impacts related to aesthetics and visual quality, are given due weight in project decision-making. NEPA is applicable to all major actions sponsored, funded, permitted, or approved by federal agencies.
- **Federal Highway Administration (FHWA) Visual Resource Guidelines** – These guidelines provide a methodology that helps to identify potential aesthetic impacts. A visual impact is defined as a combination of a resource change and viewer response to the change. To evaluate the resource change, one must define the visual resources in the area, their character, and their quality. To evaluate viewer response, one must define the viewers ("of" and "from" the road), their exposure, and their sensitivity. The FHWA guidelines are applicable to the Proposed Project because the FHWA owns land within the Proposed Project's viewshed.

B. State

- **California Environmental Quality Act (CEQA)** – The visual resources guidelines included in CEQA are a means to measuring potential visual impacts. CEQA Guidelines provide a framework for addressing impacts to visual sources.
- **State Scenic Highway Program** – This program was created to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of land adjacent to those highways. Portions of four roadways in San Diego County (SR-75, SR-78, SR-125, and SR-163) are officially designated scenic highways; however, the "scenic" portions of those roadways are not within the viewsheds of the Proposed Project.

C. Local

- **City of San Diego, Development Services Department, Significance Determination Thresholds, August, 2006** – Several City of San Diego Development Services Department's Significance Determination Thresholds address visual quality. These significance thresholds specifically apply to views, neighborhood character/architecture, landform alteration, development features, and light/glare.
- **City of San Diego, Progress Guide and General Plan, Approved February 1979, Updated, June, 1989** – This Plan establishes criteria for determining scenic quality. The document states that disturbed areas designated for open space should be recontoured where feasible to recreate the natural topography and these areas should also be restored or enhanced where feasible with native vegetation to return these areas to a natural appearance.
- **County of San Diego, Scenic Highways and Conservation Elements, December, 1986** – These are two of several elements of the County of San Diego General Plan that address scenic and visual resources in San Diego County. The same roadways as noted for the State Scenic Highway Program are designated Scenic Highways in the Scenic Highway Element. State Route 52 is an "eligible" State Scenic Highway, but has not yet been adopted. The Conservation Element establishes zoning areas to protect scenic and natural resource areas within the county.
- **Miramar Landfill General Development Plan EIR/EIS, July 1994** – The General Development Plan is a comprehensive master plan for the future development of Miramar Landfill. Landform alteration/visual quality conclusions in the EIS/EIR were as follows: "the permanent manufactured slopes adjacent to SR-52 would be a significant impact to visual resources in a setting that has historically contained open spaces with broad vistas to the distant mountains."

- **Adjacent Community Plans** – Communities surrounding MCAS Miramar include: Mira Mesa and Scripps Ranch to the north, Kearny Mesa and Tierrasanta to the south, University City to the west, and Clairemont Mesa to the southwest. Each of the community plans include a similar overall goal and policy, "to preserve whenever possible scenic resources including scenic views and view corridors."

Existing Visual Environment

The Proposed Project site is visible to the public from several high-volume roadways including SR-52 to the south; I-15, SR-163, and Kearny Villa Road to the east; and I-805 to the west. The site is most visible to travelers along SR-52 and I-805, since daily traffic counts along these roadways are the highest of the five roadways from which the site is visible. The site is visible from the surrounding roadways for brief to extended periods of time, depending on the rate of travel and direction of movement; for example, the landfill is visible for a longer period of time

if traffic is slow. Some nearby residents are able to view the site. In addition, there are few residential, park or recreational locations that have views to the site.

The Proposed Project area is visible from surrounding areas in the communities of University City, Clairemont Mesa, and Kearny Mesa and high points in Tierrasanta. Residences located on Wolfstar Court in University City, less than one mile from the boundary of the lease boundary, have a direct view of the Proposed Project site. Residences located on Palmyra Avenue in Clairemont Mesa, less than one mile from the lease boundary, have backyard views of the Proposed Project area; however, man-made structures are within the foreground views. The Kearny Lodge Trailer Park, located in Kearny Mesa approximately 3,300 feet from the lease boundary, is the nearest residential development to the Proposed Project site. Limited views of the Proposed Project area can be seen from elevated structures (i.e., staircases or residential walls); however, most residents have no views to the Proposed Project site. Hickman Field, a ball field located in Kearny Mesa approximately 3,600 feet from the lease boundary, has limited distant views of the Proposed Project site. There are direct views of the Proposed Project site from the MHPA (Marian Bear Natural Park), which is located approximately 6 miles southwest of site.

Manmade features and vegetated mesas and canyons are especially dominant in the Proposed Project site landscape. There are no major water bodies within the area, although ephemeral streams run through the region. The existing open site contrasts strongly with the surrounding land uses. The site is located on MCAS Miramar. It is bounded on three sides by freeways, and on the fourth side by the airstrip portion of the base. Beyond the freeways to the west, south, and east, are urban areas, where as more military uses are located to the north. Urban communities beyond the freeways include Kearny Mesa, Clairemont Mesa, University City, and Mira Mesa. The overall characterization of the Proposed Project site is rural, with interspersed landfill features including earth cuts and fills exposing unvegetated landfill areas. Other manmade elements, such as moving landfill vehicles, traverse the area. Intermittent green and/or brown mesas and canyons covered by grasses and shrubs are interspersed with obvious man-made tan landfill features and moving vehicles.

The Miramar Landfill General Development Plan (GDP) characterizes the MCAS property as follows: “Regionally, NAS [MCAS] Miramar provides one of the largest, most contiguous remaining land parcels in southern California that is interconnected to other large tracts of land by wildlife corridors.” The MCAS Miramar Integrated Natural Resources Management Plan, May 2000 describes the topography as follows: “Elevations on MCAS Miramar range from just over 1,178 feet in the east to 240 feet in the west. The gently sloping, eroded plateaus or mesas where the flight line and air operations are located are cut by southwesterly draining canyons. These give rise to a series of marine wave-cut terraces, which in turn grade to the steep and dissected hills of Sycamore Canyon. The hummocky topography that includes impervious subsurface layer supports vernal pools in the western and central areas of MCAS Miramar. It consists of alternating well-drained to moderately well drained mounds and poorly drained swales.”

The visual patterns of MCAS Miramar can be grouped into three main categories: undeveloped mesas and canyons, airfield/developed areas, and landfill-related. Surrounding areas to the north, west, south, and southeast of the Station are characterized by dense development. The densely developed communities surrounding MCAS include: Mira Mesa and Scripps Ranch to the north, University City to the west, Clairemont to the southwest, and Kearny Mesa and Tierrasanta to the south (Appendix G, Figure 1.1-1 of the Visual Impact Analysis). Major freeways also intersect and bound the Station. Interstate 805 bounds the western edge, State Route 52 traverses the southern edge and Interstate 15 intersects the Station toward the center. A small portion of State Route 163 also crosses the southern portion of MCAS merging into Interstate 15. There are no major water bodies or rivers within the area; however, several large ephemeral drainages flow through the Station including, but not limited to: Rose Canyon, San Clemente Canyon, Sycamore Canyon, Oak Canyon, Spring Canyon and Quail Canyon. Locations of Rose and San Clemente Canyons are shown in Figure 3, but the other drainages are located six miles or more east of West Miramar Landfill.

3.3.14 Water Quality/Hydrology

Applicable Rules, Regulations, Policies, Guidelines

The City of San Diego has developed storm water standards for non-point sources that contribute to the City's storm water system. This landfill, however, is governed under an Industrial Permit system administered by the RWQCB, and is not regulated under the City's storm water program. The RWQCB has issued Order No. 87-54 specifying waste discharge requirements for this landfill, amended in 1993 with Order No. 93-86. Operations are conducted in compliance with these orders, with the Solid Waste Facility Permit conditions, and according to a Storm Water Prevention Plan prepared in compliance with the National Pollution Discharge Elimination System industrial discharger requirements as set forth in the Fact Sheet issued by the RWQCB on April 17, 1997. Regulated sites, including landfills, are required to develop a Storm Water Prevention Plan and a Storm Water Monitoring Program. As specified in these documents, the City provides employee training and good housekeeping measures. Best Management Practices (BMPs) can include, but are not limited to the following: desilting devices such as straw bales, silt fences, silt dikes, and de-silting basins, as well as erosion control measures such as permanent swales and vegetation. The existing drainage control system for WML consists of drainage channels, berms, downdrains, energy dissipaters, and detention basins. Mulch has been used extensively on decks and sideslopes to prevent erosion. Drainage berms along the perimeter of the landfill decks convey surface water to San Clemente Canyon after traveling through the downdrains or improved drainage channels and then into detention basins, where suspended sediments settle out prior to discharge of the water to San Clemente Creek.

Five surface water monitoring locations are located along San Clemente Canyon: a control point upstream of the landfill provides background readings, and the five downstream points monitor water quality changes associated with landfill discharges. These stations are monitored twice annually, according to conditions, and results are reported to the RWQCB in an annual compliance report.

Groundwater protection and monitoring are required for the existing landfill operation, per the requirements of Title 27 of the California Code of Regulations. Depth to groundwater measurements must be taken on a quarterly basis and samples must be taken on a semi-annual basis. Samples must be analyzed for a modified list of constituents as modified for onsite leachate characteristics. (Leachate is water containing dissolved materials from the waste material in the landfill.) Once every five years, samples are analyzed for the entire Title 27 suite of constituents. Groundwater reports must be filed with the RWQCB twice a year. The annual report summarizes the year's sampling events and includes a trend analysis with historical data.

Existing Water Quality/Hydrology

According to the 1994 Water Quality Control Plan developed by the RWQCB, the Proposed Project site occurs within the Penasquitos Hydrographic Unit (Unit 6) of the San Diego Basin

Planning Area (Area 9), within the Peninsula Range Physiographic Province of California. Water resources in the San Diego Region are classified as coastal waters, surface waters, ground waters, imported surface waters, and reclaimed water. The Proposed Project site occurs along the San Clemente Canyon drainage (hydrologic basin number 6.4), which has recreational uses identified in areas such as Mission Bay. A water quality report is included in Appendix H.

The City currently provides Title 27 groundwater protection and monitoring. Current operations provide collection berms installed across the mouths of the filled canyons tributary to San Clemente Canyon for the purpose of intercepting potential leachate flows at the original ground surface. The berms are equipped with perforated PVC risers installed in a gravel filled sump to monitor for the presence of leachate. These leachate sumps are monitored on a quarterly basis.

Except for Module 1 (which was developed before passage of RCRA, subtitle D liner requirements), Phase II is equipped with a leachate collection and removal system (LCRS). This LCRS consists of a blanket-type, pipe and gravel system designed to carry twice the estimated maximum daily leachate volume. The LCRS is designed to allow flow by gravity to the main below ground collection tank. Leachate is then pumped to above grade 10,000-gallon storage tanks inside a concrete secondary containment structure. The tanks are emptied periodically by gravity via piping into a water truck. It is delivered to the top of the active tipping face and dumped into the daily cell. The waste absorbs the leachate and the increased moisture content and beneficial microorganisms help enhance the decomposition process and methane production. No additional leachate is expected as a result of the Proposed Project, since the rainfall will not change, and the surface area receiving precipitation will not change. Groundwater monitoring is provided to ensure that these pollution control measure and landfill engineering are successful at protecting public health and safety or the environment. The Proposed Project would not change the footprint, and would make no changes to the existing groundwater protection and monitoring program. The height of the landfill is not one of the parameters evaluated in designing the liner; the additional height and weight will have no impact on the integrity of the liner as described in the JTD.

3.3.15 Energy Conservation

Applicable Rules, Regulations, Policies and Guidelines

CEQA Guidelines Appendix F stresses the importance of conserving energy by 1) decreasing per capita consumption, 2) decreasing reliance on natural gas and oil, and 3) increasing reliance on renewable energy sources. It does not directly mention development of renewable energy sources; however, clearly these goals and objectives cannot be successful unless renewable energy is developed. The City provides its guidance in its Significance Determination Thresholds under "public utilities," but again, the emphasis is on reducing consumption, not specifically on green power generation.

ESD currently operates the City's energy conservation and green power programs. ESD provides the planning and coordination to ensure the adequate provision of traditional and green power, which is the basis for impacts assessments, both per the CEQA Guidelines Appendix F, and per the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006). ESD works with state agencies, including the legislature, California Environmental Protection Agency, and Integrated Waste Management Board on development of laws, standards, and policies to require and incentivitize adequate conservation and green power generation to ensure that energy demands are met. It evaluates the existing shortfall in local energy generation, and works to promote conservation measures to reduce the load, as well as encouraging green power, including, for example, installation of solar panels on City facilities. By the standards developed by ESD, projects that do not provide conservation and/or green power generation features, and that consume large amounts of electricity, may have significant impacts.

Existing Conditions

The existing landfill support services are housed in a few mobile buildings and consume less energy than is generated by the gas collected at the landfill. The central location of this disposal facility provides for short trip distances, thereby minimizing fuel consumption.

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4.0 ENVIRONMENTAL CONSEQUENCES

In providing environmental analysis, the City's guidelines specify that the following should be considered: Is there a resource, hazard or other environmental factor of significance involved with the location proposed for the project? This question should be kept in mind for each issue area, however, overall it is noted that the site is an existing landfill, and no change to this use is proposed.

4.1 Impacts of Proposed Project by Issue Area

4.1.1 Land Use

Criteria for Significance Determination

The City has adopted a Progress Guide and General Plan, which provides comprehensive long-term planning for the physical development of the City. In order to achieve this plan, the General Plan addresses 14 elements that include key aspects of the City's development: housing; transportation; commercial; industrial; public facilities, services, and safety; open space; recreation; redevelopment; conservation; energy conservation; cultural resource management; seismic safety; urban design; and strategic framework.

The City's existing, adopted Progress Guide and General Plan, 1979 version, updated in 1989, provides a brief discussion of landfill siting, solid waste collection, and waste diversion in the Public Facilities and Services, and Safety section, on page 299. The City of San Diego General Plan Final Public Review Draft, October 2006, provides more detail on page PF-33 on the need for these facilities and services, with an emphasis on the following page (PF-34) regarding extending the life of existing facilities. Both plans emphasize efficient and adequate services.

The San Diego County Integrated Waste Management Plan, Countywide Siting Element showed "unless changes are made, by the year 2007 existing disposal facilities will not have the necessary permitted throughput rates to accommodate projected waste disposal needs in the region". The Siting Element identifies the potential to increase the vertical expansion of the Miramar Landfill to extend its waste capacity for an additional three to ten years (based on final elevation) (The San Diego County Integrated Waste Management Plan, County Wide Siting Element, SC-17 – SC-18).

In October 2002, the City Council adopted the Strategic Framework Element, which established a growth management program for the City and region. The Strategic Framework Element discusses the City's shortage of landfill capacities, its efforts to reduce the amount of refuse buried in landfills to comply with Integrated Waste Management Act, and the Miramar Landfill's role in meeting this mandate (Strategic Framework Element, IV-94). The Strategic Framework Element is consistent with the San Diego County Integrated Waste Management Plan, County Wide Siting Element.

The City operates the Miramar Landfill on leased land on MCAS Miramar. The landowner is the United States Navy. MCAS Miramar has developed the MCAS Air Installations Compatible Use Zones (AICUZ) to protect the public's health, safety, and welfare, and to promote sustainability strategies in working with local, regional, state and federal agencies for land use planning purposes. The AICUZ states any proposed land use that exceeds 200 feet above ground level or penetrates the 100:1 slope extending 20,000 feet from the nearest point of the closest runway must be submitted to both the FAA and MCAS Miramar for review (AICUZ, 5-1). Additionally, the AICUZ discusses land uses and compatibility guidelines for Accident Potential Zones (APZs) (areas near runways with the highest potential for an accident) to limit the density of people at any one time and the coverage of development on a particular. The Miramar Landfill is located within an area zoned for Junkyard/Dump/Landfill use, and has a 12.7-acre APZ (AICUZ, 6-1 – 6.8).

Appendix J of the Environmental Compliance and Protection Manual, Marine Corps Order P5090.2A, specifies the Department of Defense policy on achieving compatible use of public and private lands in the vicinity of military airfields. Appendix J is consistent to the MCAS AICUZ. Appendix J, Section (C)(3)(a)(1) explains areas immediately beyond the ends of runways and along primary flight paths are subject to more aircraft accidents than other areas. Accordingly, these areas should remain undeveloped, or sparsely developed in order to limit, as much as possible, the adverse effects caused by a possible aircraft accident. The Miramar Landfill is located in a sparsely developed area of the military base, and its vertical expansion would be consistent to the policies and guidelines outlined in Appendix J.

The Marine Corps determines land uses within the base, and ensures that land uses on the base are compatible with their primary mission, which is national defense. The existing land use (landfill) has already been determined to be compatible, but the proposed height increase was evaluated to determine if there could be any interference with aircraft operations. The criteria used by the military for this determination is not public information.

4.1.1-1 Would the Proposed Project require a Site Development Permit and deviation or variances that would result in a physical impact on the environment?

A. Environmental Consequences

The City has required a Site Development Permit. No deviations or variances would be required. No change to the existing land use is proposed.

B. Analysis of Significance

Because the Miramar Landfill would continue an existing compatible use, there would not be any significant impacts caused by implementation of the Proposed Project. The Proposed Project's vertical expansion of the Miramar Landfill would be consistent with the policies and goals for improving and meeting the City's waste disposal methods and needs. These policies

and goals are identified in the draft General Plan; Public Facilities, Services and Safety Element; and Integrated Waste Management Plan, Countywide Siting Element.

The Proposed Project would continue an existing, compatible land use, therefore there would be no impact.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.1-2 Would the Proposed Project result in a conflict with the environmental goals, objectives and recommendations of Miramar's Integrated Natural Resources Management Program?

A. Environmental Consequences

The facility is listed as an existing use within the INRMP. No change to the existing land use is proposed.

B. Analysis of Significance

The Proposed Project would continue an existing, compatible land use, therefore there would be no impact.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.1-3 Would the Proposed Project conflict with the provisions of the City's Multiple Species Program Subarea Plan or other approved local regional or state habitat conservation plan?

A. Environmental Consequences

The site is not mapped as a conservation area in any local, regional, or state habitat plan. The nearest MHPA lands are shown on Figure 7, approximately .3 miles away, located on the other side (south) of State Route 52 in the San Clemente tributary. Approximately .5 miles away, on the far side (south) of SR 52 and west of highway 805, in San Clemente Canyon is another MHPA area. To the northwest, on the west (far) side of the highway 805, approximately 1.0 mile away, is another MHPA area in Rose Canyon. The Proposed Project conflicts with no provisions of the City's MSCP. No change to the existing land use is proposed.

B. Analysis of Significance

The Proposed Project would continue an existing land use, therefore there would be no impact.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.1-4 Would the Proposed Project result in land uses that are not compatible with an adopted Airport Compatibility Land Use Plan (ALUCP)?

A. Environmental Consequences

The first NAS Miramar Air Installation Compatibility Zone study was produced in 1976, and adopted in 1977. A revised AICUZ, as amended, was then used by SANDAG, serving as the Airport Land Use Commission to guide development. Now the San Diego Airport Authority has the role SANDAG once served. Off the base, the Marine Corps has no ability to dictate land uses within the City of San Diego, and so it depends upon cooperation from the City and from airport authorities to ensure that its landing strip does not result in exposure of people to unacceptable noise and/or crash hazards. The current Airport Land Use Compatibility Plan MCAS Miramar, San Diego, California, was amended on October 4, 2004. It is required by Section 21675 of the Public Utilities Code. Local agency land use regulations are required to be submitted to the Airport Land Use Commission for determination of consistency with the plan.

The plan includes a compatibility matrix for noise levels. Pursuant to this table, the landfill would be considered an industrial use. Given the nature of landfill operations, no specific noise restrictions are provided. The plan also includes a compatibility matrix for uses with the accident potential from military aircraft. "Landfill" is not included in the list of uses subject to restrictions. The Marine Corps has determined that this use, which occurs on the base property, but is not located at the end of the runway where the highest accident potential zone rating (A) is applied, is compatible. Although it is in accident potential zone B, the low ratio of people to land, the existence of large, unpopulated expanses, makes this use compatible with the intent of the plan. No change to the existing land use is proposed.

B. Analysis of Significance

The Proposed Project would continue an existing, compatible land use, therefore there would be no impact.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.2 Air Quality

Criteria for Significance Determination and Methods of Analysis

For federal actions, if the sum of direct emissions from the landfill, plus indirect emissions, such as vehicles, exceed 100 tons per year of nitrous oxides and volatile organic compounds, then a conformity determination must be performed. In addition, the Air Pollution Control District has developed specific thresholds of significance for each criteria pollutant and several non-criteria, TAC, pollutants have been developed and implemented to prevent new or modified emission sources from negatively impacting the region's progress toward maintaining or achieving attainment. According to the San Diego Air Pollution Control District New Source Review rules, the Proposed Project would qualify as a major modification if the Proposed Project would exceed the following thresholds:

- Rule 20.3: Major Stationary Source/Major Modification

Pollutant	Major Modification Threshold (tons/year)
CO	100
NO_X	25
PM_{10}	15
SO_X	40
VOC	25

- Rule 20.3: Best Available Control Technology (BACT)

A net increase in potential to emit (PTE) PM_{10}, NO_X, VOCs, or SO_X and a post-project PTE of 10 pounds per day or more of PM_{10}, NO_X, VOCs, or SO_X.

- Rule 20.3: Air Quality Impact Analysis (AQIA)

Pollutant	SDAPCD AQIA Threshold (lbs/day)	SDAPCD AQIA Threshold (tons/year)	SDAPCD AQIA Threshold (lbs/hour)
CO	550	100	10
NO_X	250	40	25
PM_{10}	100	15	--
SO_X	250	40	25
VOC	--	--	--

- Rule 20.3: Emission Offsets

If the Proposed Project constitutes a new major source or major modification of a major stationary source, any increases in NO_X and VOC must be offset at a ratio of 1.2 to 1.0, on a pollutant-specific basis.

- Rule 1200: Screening Health Risk Assessment

Receptor	Permitting Threshold Value[1]
Maximum IndividualCancer Risk – Residential	10.00×10^{-6}
Maximum Individual Cancer Risk – Commercial	10.00×10^{-6}
Maximum Chronic Hazard Index	1.0
Maximum Acute Hazard Index	1.0

Note: (1) At a receptor distance of 1,000 feet.

The City specifies that projects should be evaluated to ensure that current air quality regulatory compliance attainment status is not adversely affected by stationary sources of emission, including CO hotspots, from new development. Projects should not conflict with air quality plans, violate any air standards, expose receptors to substantial pollutant concentrations, create objectionable odors, produce 100 pounds or more per day of particulates, or alter existing air movements. Projects should include measures to reduce project-related ozone and particulate matter.

The U.S. Occupational Safety and Health Administration has established employee exposure limits to various emissions set forth in the Code of Federal regulations, Section 29, which are summarized below. Limits set by OSHA are known as Permissible Exposure Limits (PEL). All limits are eight hour time weighted averages in parts per million, unless marked as ceiling values.

Substance	OSHA PEL
CO	50
CO_2	5000
NO_2	5[1]
SO_2	5

Note: (1) Ceiling value, not time-weighted average.
Source: OSHA Website.

The May 2005 U.S. Environmental Protection Agency (EPA) Office of Research and Development Landfill Gas Emissions Model, LandGEM Version 3.2 was used to calculate LFG generation rates resulting from the Proposed Project and LFG generation rates from the baseline (No Project). Model defaults are based on empirical data from U.S. landfills. When available,

field test data can be used in place of model defaults. For the Proposed Project, historical site-specific disposal rates were used. To double-check the results of the LandGem model, the results were compared to site-specific gas collection data. To project the LFG generation rate for the Proposed Project, it was estimated that a 20-foot height increase would increase the active life of the landfill by approximately four years (Shaw Environmental, 2005).

Baseline and Proposed Project LFG generation rates were estimated for the entire Miramar Landfill, and for WML only. The estimates were made for the entire Miramar Landfill, at the request of the SDAPCD, to compare the extent of the effects of the Proposed Project in relation to the whole landfill. Data for the entire Miramar Landfill are provided in Appendix D. However, this comparison is not considered as strenuous as the comparison of the Proposed Project against the emissions of the existing WML alone. Therefore, a second analysis was done for this more critical comparison.

For WML, the maximum projected LFG generation rates for the baseline and Proposed Project would be reached in years 2012 and 2017, respectively. The LFG generation rate would peak the year that the landfill closes, and then decrease. Although the estimate of years of capacity the height increase would provide is approximately four years, five years was used in this analysis as a worst case scenario.

Emissions of criteria pollutants and TACs were calculated based on the maximum projected LFG generated for both baseline and expansion cases for WML and the entire Miramar Landfill. Default values from the EPA were used to estimate the criteria pollutants and TACs emitted from the flare stations. Equations were used to calculate expected: fugitive emissions from the landfill surface, LFG emitted from the flare stations, and combustion emissions from the flare stations. For the baseline and Proposed Project scenarios, the fugitive emissions and the flare emissions for the criteria pollutants were added together and the fugitive emissions and the flare emissions for the TACs were added together. The incremental changes between the baseline and Proposed Project scenario years were then compared to evaluate the increase in criteria pollutants and TACs. It was assumed that due to additional gas collection planned, the fugitive emissions from the surface of the landfill would not increase and that all the additionally collected LFG would burn in the already-permitted flare stations. Therefore, the only emission increases are associated with the flares.

To estimate the potential health risks from the Proposed Project, the EPA SCREEN3 model was used. The SCREEN3 model incorporates information such as meteorology, distance to the closest offsite residential and commercial receptor; the height and diameter of the flares, and the maximum incremental increase in annual emissions of carcinogens and non-cancer chronic TACs. The results from the model were compared to the threshold values to determine the health risk of the Proposed Project.

4.1.2-1 Would the Proposed Project result in air emissions that would substantially deteriorate ambient air quality?

A. Environmental Consequences

The Proposed Project would increase the service life of the landfill, but would not increase the rate at which waste is received at the landfill. The Proposed Project would not create any new sources of air emissions, but would extend the duration of emissions already generated at the landfill.

Because of the increased volume of waste, the Proposed Project would eventually increase the landfill's annual LFG generation rate (the curve representing annual emissions would reach a higher level at closure than the existing curve). Although virtually the same surface area would be involved, with only minor increases as a result of higher side slopes, eventually the potential rate of fugitive emissions would increase. The Proposed Project would generate an additional 1,360 standard cubic feet per minute (SCFM) of LFG from the baseline (at WML). The projected LFG generation rates for the baseline and Proposed Project were calculated to be approximately 10,070 and 11,430 SCFM in years 2012 and 2017, respectively (summary of pre- and post-project criteria pollutant emissions and TAC emissions is provided in Appendix D).

The requirement for Best Available Control Technology (BACT) is triggered when a project has a net increase in its PTE PM_{10}, NO_X, VOC, and SO_X and has a post project PTE of 10 or more pounds per day of PM_{10}, NO_X, VOC, and SO_X. Because of the existing PTE, the Proposed Project site is already equipped with BACT, such as the LFG collection system, cogeneration facility, and flares. Air monitoring will determine if the APCD should require additional extraction wells, and/or raising existing wells higher to increase efficiency, maximize capture of gas for energy production, and to control migration of landfill gas. Thus, the Proposed Project would modify the LFG collection system by the addition of pipes and wells, which would allow a larger volume of LFG collection and continue to control the collected gases through the use of the existing cogeneration facilities and flares.

The Proposed Project includes sufficient LFG control to ensure that fugitive emissions from the surface of the landfill would remain unchanged. The separately permitted flare emissions would increase compared to the baseline scenario. This excess amount is within the permitted capacity of the existing flares.

In addition, due to vehicular traffic, the Proposed Project would extend PM_{10} emissions at the landfill by approximately four years, five to consider "worst case"; however, these PM_{10} emissions would be present in San Diego County regardless of whether the proposed height increase is implemented, because it is expected that once the Miramar Landfill closes, the solid waste, the associated vehicular traffic and its emissions would be transferred to another disposal or transfer facility within the County.

The Proposed Project would not be considered a major modification of a major source, because the major modification thresholds listed under Rule 20.3 (Section 5.1.1.1 of this EIS/EIR) would not be exceeded. Therefore, the need for emission offsets would not be triggered. In addition, the AQIA thresholds would not be exceeded and thus, an AQIA would not be required for the Proposed Project. The Proposed Project would continue to trigger BACT requirements because of PTE emissions and more than 10 pounds per day of five criteria pollutants. The majority of emission increases are due to combustion of LFG in the flare, which are permitted separately from the WML operations. Table 4.1.2-1 shows the allowable emissions levels at West Miramar Landfill.

TABLE 4.1.2-1
Potential to Emit Summary and Significance

Pollutant	Project Emissions (tons per year)	SDCAPCD AQIA Threshold (tons/year)	Significant
CO	0.56	100	No
NO_x	14.30	40	No
PM_{10}	3.57	15	No
SO_x	1.21	40	No
VOC	2.11	-	NA

Source: URS, 2006.

As Table 4.1.2-1 shows, the potential to emit nitrous oxides and volatile organic compounds is well below the 100 ton per year federal threshold. Therefore a Record of Non-Applicability (RONA) can be issued by the Commanding Officer at MCAS Miramar.

B. Analysis of Significance

The Proposed Project would extend the duration of emissions already generated at the landfill. No new sources of emissions would result from implementation of the Proposed Project. The Proposed Project would continue to trigger BACT requirements as a result of extension of the current emissions; however, this would not be considered a significant impact because BACT is already required and implemented at the existing site. BACT would ensure that no emissions exceeding existing levels would occur. Thus the Proposed Project would not result in air emissions that would substantially deteriorate ambient air quality. No air quality impacts, in addition to existing impacts, would be caused by implementation of the Proposed Project. In addition, the number of vehicular trips would remain unchanged and within permitted amounts. Therefore, no significant air quality impact is anticipated.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.2-2 Would the Proposed Project result in the exposure of receptors to substantial pollutant concentrations?

A. Environmental Consequences

Based on the Screening Health Risk Assessment summarized in the air quality report, the closest commercial receptor is located 4,380 feet (0.83 mile) west of the Proposed Project site. The nearest residence is located 4,919 feet (0.93 mile) southwest of the Proposed Project site. A map of the locations of receptors is provided in Appendix D of this EIS/EIR. Potential health impacts due to emissions from a facility tend to decrease significantly at distances greater than 1,000 meters (approximately 3,281 feet or 0.62 mile). SDAPCD Rule 1200 sets forth threshold values for cancer risk, and chronic and acute hazards to assess the potential health impacts at the nearest receptor. Table 4.1.2-2 shows the thresholds associated with the types of health risk and the calculated potential health risk values for the receptors closest to the Proposed Project site.

TABLE 4.1.2-2
Potential Health Risk

Receptor	Permitting Threshold Value	Calculated Value at 1,000 meters/0.62 mile	Significant?
Maximum Individual Cancer Risk – Residential ($MICR_{Residential}$)	10.00×10^{-6}	0.12×10^{-6}	No
Maximum Individual Cancer Risk – Commercial ($MICR_{Commercial}$)	10.00×10^{-6}	0.017×10^{-6}	No
Maximum Chronic Hazard Index ($HIC_{Maximum}$)	1.0	0.03	No
Maximum Acute Hazard Index ($HIA_{Maximum}$)	1.0	0.015	No

Source: *West Miramar Landfill Vertical Expansion, Technical Evaluation of Potential Impacts Related to Air Quality*, URS Corporation, 2005.

As shown in Table 4.1.2-2, the potential health risks caused by the maximum potential emissions associated with the Proposed Project would not exceed any of the applicable Rule 1200 thresholds.

The emissions data established for this analysis looks at potential to emit, not at resultant pollutant levels in the workers' area. Actual field measurements would determine resultant concentrations, but in an open air environment such as the landfill, the dilution effect of fresh air rapidly reduces the parts per million measured. OSHA standards allow higher standards for workers than EPA allows for stationary receptors because employees can be required to take measures to reduce exposure, and because they are expected to be exposed only for eight hours, not continually. OSHA standards apply not only to outdoor facilities, such as the landfill, but also to enclosed operations, which may be operating diesel engines or involved in other

operations that generate emissions. Open air facilities such as the WML do not typically require specialized equipment to reduce employee exposure.

B. Analysis of Significance

There would be no change in the relative position of receptors to the landfill given the proposed height increase. Neither the existing landfill, nor the Proposed Project would result in the exposure of receptors to substantial pollutant concentrations. There would not be a significant impact associated with the Proposed Project.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.2-3 Would the Proposed Project create objectionable odors?

A. Environmental Consequences

Activities at landfills may result in offsite detection of odors. Such activities include transport of waste, unloading operations, compaction activities, fugitive gas releases, leachate evaporation, green waste shredding, green waste storage, and green waste composting. Good waste management and cover maintenance practices are the primary methods of preventing odors that may result in a public nuisance. When the City first began mulching and composting operations there were odor complaints. These operations have been improved to avoid odor problems. Since 2004, only one odor complaint related to WML has been received by SDAPCD. The complaint was investigated by SDAPCD personnel, and could not be validated.

The Proposed Project is strictly to increase the height of the existing landfill by a maximum of 20 feet. It would not change the daily amount of waste disposal at WML, nor would the current waste management practices, including placing of daily cover, be changed. As a result of continuation of current landfill practices, no significant odor impact is anticipated, even though the proposed waste management disposal would continue over a longer period of time.

B. Analysis of Significance

No significant objectionable odor impact would result from the Proposed Project because there would be no changes in waste quantities, types, or odor management procedures.

C. Mitigation Measures

Since no significant odor impact is expected, no mitigation measures are proposed.

4.1.2-4 Would the Proposed Project create dust?

A. Environmental Consequences

Dust, or particulate matter, emissions at the landfill are mainly the result of four landfill activities: vehicle traffic on paved roads, vehicle traffic on unpaved roads, cover material quarry operations, and application of the cover material. Quarry operations at Miramar Landfill have ended. The Proposed Project is an increase in the height limit of the landfill, but proposes no changes in daily operations, including no increases in the current limit of tons of waste or trips that can be accepted at the facility. As a measure to conserve landfill space, operations have already transitioned from dirt cover, as prescribed in the RCRA subtitle D, to an alternative tarpaulin system approved by the LEA. This measure also reduces particulate emissions. In addition, the Proposed Project would not change the vehicle traffic on paved roads because only a small portion of Miramar Landfill is paved beyond the entrance gate and the number of vehicles per day on that roadway would not change.

The Proposed Project would result in an increased distance of approximately 48 feet (roundtrip) of unpaved roads because of the higher slope of the proposed vertical expansion. However, the increased distance would be offset by a shorter haul distance of approximately 1.6 miles (roundtrip) when waste disposal shifts to Phase I. The most likely plan for implementation of the Proposed Project would be to continue operations in the Phase II area until that portion of the landfill is filled to the new limit, and then to return to the Phase I area, which would have the shorter trip distance.

B. Analysis of Significance

Without the Proposed Project, operations would continue in the Phase II area to its current limit, at which point the landfill would be closed. After closure, dust emissions at the site would be greatly reduced, although overall emissions will, at closure, include longer trip distances to a more remote facility, and ongoing emissions at that facility. However, with the Proposed Project, after Phase II is filled to the new limit, operations would return to the Phase I area, which would shorten trip distances. Since dust is directly related to trip distance, there would be no increase in dust emissions associated with trip distance. As shown in Table 4.1.2-1, project emissions are projected to be 3.57 tpy, well below the significance threshold of 15 tpy. Therefore, there would be no significant impacts.

C. Mitigation Measures

Since no significant dust impact is expected, no mitigation measures are proposed.

4.1.2-5 Would the Proposed Project, when considered in combination with past, current, and future projects in San Clemente Canyon, result in cumulatively significant impacts to air quality?

A. Environmental Consequences

The Proposed Project site and the adjacent areas of San Clemente Canyon are located within MCAS Miramar. Any past, current, and future projects in this area would be included in the 1999 MCAS Miramar Master Plan, the Integrated Natural Resources Management Plan for MCAS Miramar, or the Miramar Landfill GDP. No substantial changes to MCAS Miramar facilities are planned or anticipated. Future ancillary facilities proposed in the Miramar Landfill GDP that may cause an air quality impact include a materials recovery facility, a transfer station, and a paper pulp processing plant. Some of these projects were included in the GDP at a programmatic level of analysis and others were analyzed for impacts at a project-specific level. None of them are included in this analysis; these facilities must, at the time they are proposed, be reviewed to see if existing environmental analysis is adequate, or if additional review is needed.

As described in Section 4.1.2.1 B, the Proposed Project would not increase emission levels. As provided in a contract with the City, a private company owns the gas, and will make use of it in the energy generation facility(s) located at Miramar under separate permits. As is currently the case under the existing permits, any emissions not captured by this "green energy" facility would be directed to the existing flare stations, with no changes to the flare stations' permit. Therefore, the Proposed Project would not add to any cumulatively significant air quality impact when considered in combination with past, current, and future projects in San Clemente Canyon.

B. Analysis of Significance

Since the Proposed Project would result in no change in emission rates associated with the existing landfill, it would have no direct impact. While adverse but not significant impacts can contribute to cumulatively significant impacts, when there is no direct impact, the Proposed Project would not contribute to cumulatively significant air quality impacts.

C. Mitigation Measures

Since no cumulatively significant air quality impact is expected, no mitigation measures are proposed.

4.1.3 Biological Resources

Criteria for Significance Determination

Direct impacts occur when biological resources are altered or destroyed during the course of, or as a result of, project implementation. Indirect impacts may include elevated levels of dust, erosion, invasive exotic species, noise or artificial lighting within native habitats adjacent to the Proposed Project direct impact area. According to the City of San Diego Significance Determination Guidelines, the direct, indirect, and cumulative impacts of a project must be analyzed for significance, and the extent of "take" of sensitive species and habitats should be quantified. It is the policy of the City under the MSCP program to minimize all direct and indirect impacts on undisturbed habitats and sensitive species where practicable.

To determine significance of impacts to biological impacts, potential impacts on candidate, sensitive, or special status species, habitats, and wildlife corridors must be considered, along with the edge effects of the Proposed Project, potential conflict with local policies or ordinances, and potential introduction of invasive species. One factor to consider is whether the site has been graded. According to the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), "in general, if the site has been legally graded or grubbed and/or is characterized by ruderal species, is not included in the City's MHPA, and does not support wetland or Tier I, II or III habitat, it probably does not support significant biological resources." These guidelines also specify that "habitat mitigation is not required for impacts to manufactured slopes or areas that have been planted with native species for the purpose of erosion control."

4.1.3-1 Would the Proposed Project result in a reduction in the number of any unique, rare, endangered, sensitive, or fully protected species of plants or animals?

A. Environmental Consequences

Construction of the Proposed Project would be limited to the manufactured surface of the landfill, and would have no direct impact on any unique, rare, endangered, sensitive, or fully protected species of plants or animals. The existing permitted landfill operation may cause indirect impacts as a result of noise, dust, non-native species, and runoff, although these are minimized by use of runoff controls and dust suppression. The proposed height increase would not alter these existing impacts. These impacts are currently reduced by use of Best Management Practices (BMPs), described in Section 3.3.12. Erosion and sedimentation are currently controlled within the active landfill and would continue to be managed with the Proposed Project. BMPs currently focus on air and water pollution, with revegetation specifications to be determined upon closure, and little control for invasion of nonnative species during active landfill operation. Because of the steeper, taller sides, runoff velocities would be greater, requiring modifications to the BMPs. The greater runoff velocities would be controlled with engineered basins so that there would be no change from existing runoff rates, thus avoiding

any indirect affects to downstream sensitive species. No runoff from the site goes directly into any nearby habitat areas; instead runoff is, and would continue to be, directed into the landfill's drainage system, thus no sensitive species are or would be affected by site runoff.

Many non-native species are weedy or "pioneer" species that invade disturbed areas. Some disturbed areas have been recolonized by non-native eucalyptus trees; however, these specimens are small, young, and are not thriving on the harsh landfill surface. Thus they are small and thin and do not support raptor nests, though raptors may use them as perching spots from time to time, and may forage over the landfill. The raptors do not occur in numbers nor do they fly at heights sufficient to pose a strike hazard with aircraft. Existing landfill operations have left large disturbed areas that are completely bare, or have been invaded by nonnative species. Under the Proposed Project, this condition would remain, though it would be restricted to a slightly smaller area (468 acres) within the existing landfill footprint (476 acres). Impacts to eight acres of habitat area that are within the permitted footprint of the landfill would be avoided. Although disturbance to this area could occur under the existing permit, disturbances to these areas are not necessary for the Proposed Project.

Noise sources associated with the operation of the landfill include trucks and other heavy machinery used to transport refuse and dirt within the facility, and pyrotechnic devices used to manage seagulls and other nuisance wildlife. These sources may currently affect sensitive wildlife located in the surrounding Proposed Project area, including the California gnatcatcher. Noise levels from the Proposed Project would be equivalent to noise levels from the current landfill operation, although eventually they would be slightly less, as a result of greater separation from noise sources. As described in Section 3.3.9, 81 dBA is the maximum reading recorded at the landfill, and was achieved as a result of military aircraft overflight, which increased readings by as much as 20 dB.

No increases in overall noise levels are expected as a result of implementation of the Proposed Project, and no reduction in military aircraft overflight are expected; however, the landfill height increase would create additional earthen berms that would act as noise barriers to adjacent gnatcatcher occupied habitat.

The Proposed Project site is a manufactured landfill and provides very little habitat for wildlife. Less than seven acres within the Proposed Project site supports disturbed associations of revegetated natural vegetation (CSS and Chaparral). The entire Proposed Project area has been previously disturbed and offers very little new habitat for plant and animal species. Additionally, the Proposed Project would not conflict with the preservation of wildlife corridors in the Miramar area. All construction activities would occur on previously disturbed land, and would not create new impacts on wildlife corridors.

B. Analysis of Significance

The changes to the Closure Plan required by the regulatory agencies did not modify the proposed use of native species to revegetate the landfill. The changes to the Plan address the taller steeper side slopes generated by the maximum 20-foot height increase. Although it is not known if the regulatory agencies may ultimately make changes to the proposed revegetation plan at the time of closure, the Proposed Project does not change the existing condition regarding the plan.

The original EIR for WML done in 1980 found that avoidance of habitat areas outside of the landfill footprint and revegetation provided adequate mitigation, although additional measures were provided in conjunction with the EA for the aggregate extraction project, as previously described. The Proposed Project would be completely within the footprint of the previously-approved projects (WML and the aggregate extraction project). In this case, the purpose of allowing and promoting vegetation on the landfill surface is for erosion control. Furthermore, impacts to areas with native vegetation could occur under the existing permit as operations are shifted within the landfill footprint. Therefore, the proposed height increase would result in no new impacts above and beyond what is already permitted, and would not contribute to cumulatively significant impacts.

Indirect impacts from edge effects are also not significant, because the current condition and the Proposed Project effects would be identical, except, as explained above and in the noise analysis, noise levels would be slightly reduced.

Eight acres of existing manufactured slope supporting habitat would be avoided. It is not necessary to disturb these areas as part of the Proposed Project. However, this avoidance is not project mitigation for potential impacts, because under both the No Project scenario and for the Proposed Project, eventually the entire landfill will require resurfacing and planting with native species per the Closure Plan, pending approval of regulatory agencies. The closure, including final contouring of the site, is required per the Resource Conservation Recovery Act, subtitle D, and would occur with or without the proposed height increase. At that closure, with or without the Proposed Project, the entire footprint of the landfill will be subject to final grading, and any interim erosion control provided by the City may be subject to alteration. Revegetation will be required as prescribed by the California Integrated Waste Management Board and the Regional Water Quality Control Board. The City has proposed revegetation with native species in the existing and proposed Closure Plans, and has biology staff and a native plant nursery to facilitate large-scale restoration efforts.

Although the onsite nursery was developed to facilitate use of container stock in revegetation efforts, experimentation provided by onsite biologists in revegetating the challenging conditions present on landfill surfaces has shown that broadcast seeding provides superior results. At the time the Closure Plan is submitted for review prior to implementation, staff biologists will present their findings and recommendations to regulatory agencies for determination of the most appropriate revegetation techniques; however, if container plantings are required, the onsite

nursery would provide appropriate specimens, produced from locally-collected seeds, thereby ensuring genetic integrity of the habitat.

C. Mitigation

Because no significant impacts were identified, no mitigation is proposed.

4.1.3-2 Would the Proposed Project impact important habitat or result in interference with the movement of any resident or migratory fish or wildlife species?

A. Environmental Consequences

As described above, the Proposed Project would not result in any change to the existing conditions of any important habitat.

With regard to wildlife movement, San Clemente Canyon is located to the south of the Proposed Project site. The Canyon, where it is adjacent to the Proposed Project site, functions as a wildlife corridor and provides habitat for many plant and animal species, including small and large mammals. It contains coast live oak riparian forest, and willow scrub. The existing landfill does not interfere with any wildlife movement in this Canyon, but may have indirect impacts as a result of noise, dust, exotic species, and runoff. The Proposed Project site is entirely within the footprint of the existing, permitted WML active landfill, and would not alter the existing conditions.

B. Analysis of Significance

Because the Proposed Project would result in no change compared to existing conditions, it would have no significant direct, indirect, or cumulative impacts.

C. Mitigation Measures

Because no impacts were identified, no mitigation measures are proposed.

4.1.3-3 Would the Proposed Project affect the long-term conservation of biological resources? Would the Proposed Project impact the Multi-Habitat Planning Area (MHPA)?

A. Environmental Consequences

As shown in Figure 3, the Proposed Project is not located within, or adjacent to, the MHPA. Under both the Proposed Project and No Project scenarios, parts of the 468-acre landfill that are not developed will be closed and are proposed to be revegetated with native species per the Closure Plan and provide a long-term benefit to local wildlife populations. Additional mitigation

has been provided over the years, including a 240-acre offsite purchase and preservation of an area in Boden Canyon as explained in Section 3.2. The Proposed Project would result in no change to the existing conditions, and would have no adverse affect on the long-term conservation of biological species.

B. Analysis of Significance

There would be no change in the long-term conservation of resources, and therefore no impact.

C. Mitigation Measures

Because no impacts were identified, no mitigation is proposed.

4.1.4 Geology

Criteria for Significance Determination

Geologic conditions exist within the City of San Diego that can pose serious problems when land is developed. Unstable slopes, slide prone soils, and faults occur in many parts of the City. Seismically liquefiable areas exist near the bays and rivers. Geologic Hazards maps that are part of the City of San Diego Seismic Safety Study illustrate where adverse geological conditions exist that require evaluation by a geologist, engineer, or both. The City provides a table within its Significance Determination Thresholds indicating the types of hazards that require this expertise. However, for landfill development, geological and engineering expertise is always required in order to design and operate the landfill in accordance with state and federal laws. The City's landfill staff includes both engineers and a geologist, and a consulting engineering and geological firm assisted with preparation of documents required by the RWCB, CIWMB, and LEA for the Proposed Project.

According to 27 CCR 21750, a 1.5 factor of safety against sliding is the minimum acceptable value for any slope-stability analysis, static or dynamic, at a Class III landfill. This minimum value applies to both permanent and temporary slopes. As required by the RWQCB, the existing landfill was designed to withstand the maximum credible earthquake.

4.1.4-1 Would the Proposed Project result in a substantial increase in wind or water erosion of soils, either on or off site?

A. Environmental Consequences

The Proposed Project would result in no change to off-site runoff velocities because of drainage controls. These controls under the existing permit and under the Proposed Project are modified as necessary as the landfill topography is filled and covered. The landfill is a constantly changing landform. These changes to the controls are made in consultation with and inspected by the RWQCB and LEA. Onsite slopes would be taller for the Proposed Project, and have been designed with additional runoff controls to ensure no substantial increase in erosion. The engineered shape of the cells and final topography are streamlined, a shape that minimizes wind erosion. Further measures to minimize wind and water erosion include the use of mulch, berms, downdrains, and detention basins.

B. Analysis of Significance

The landfill would result in no change to existing conditions. No significant impact is anticipated.

C. Mitigation Measures

Because no significant impact is anticipated, no mitigation measures are included.

4.1.4-2 Would the Proposed Project result in slopes that could become unstable, and potentially result in on or offsite landslides?

A. Environmental Consequences

The Proposed Project is situated so that it cannot affect slopes outside of its own footprint, from which the slopes rise; thus the Proposed Project would cause no slides offsite. For onsite stability, studies were conducted to determine proper engineering to prevent instability.

Four cross-sections were analyzed, two in Phase I and two in Phase II. The following table, Table 4.1.4-1, summarizes the geotechnical parameters used in the analysis. These standard parameters were used to provide the stability analysis, summarized in Table 4.1.4-2. Table 4.1.4-2 shows the likelihood of failure of manufactured slopes within the landfill. The key parameters subject to regulation are the static safety factor and the amount of displacement expected on the slope.

The static stability of the WML was evaluated at all four cross sections. The computed factors of safety exceed the minimum of 1.5 in every case. The stability of Phase II, cross-section 2 is dependent on the presence of the berm at the toe of the slope, which is included in the design, as detailed in the Joint Technical Document (JTD).

TABLE 4.1.4-1
Geotechnical Parameters

Material	Moist Unit Weight (lb/ft^3)	Saturated Unit Weight (lb/ft^3)	Cohesion (lb/ft^2)	Internal Friction Angle (degrees)
Monolithic Soil Cover	95	114	50	34
Municipal Solid Waste	85	---	0	33
Synthetic Liner System	60	---	0	14
Native Soil in Subgrade	130	135	180	32

Source: Joint Technical Document.

TABLE 4.1.4-2
Results of Stability Analysis

Cross Section	Description	Static Safety Factor	Estimated Displacement
Phase I – 1	Circular failure surface along the outer slope face	2.21	0.1 to 0.6 inches
Phase I – 2	Circular failure surface along the outer slope face	2.57	0.03 to 0.2 inches
Phase II – 1	Circular failure surface along the outer slope face	1.95	0.2 to 1.9 inches
Phase II – 2	Block failure surface along the geosynthetic liner system	1.96	3.1 inches

Source: Joint Technical Document.

The estimated permanent displacement from the maximum credible earthquake was minor, ranging from 0.03 to 1.9 inches. However, the exposed face on the south flank of Phase II yielded an estimated average displacement of about 3.1 inches along a surface defined by the synthetic liner. Even so, this displacement is within the 6-inch limit often used at landfills. As with the static analysis, this displacement is acceptable with the proposed berm at the toe of the slope. The Proposed Project would conform to the geologic safety requirements in state law.

B. Analysis of Significance

The landfill would comply with all stability standards. No significant impact is anticipated.

C. Mitigation Measures

Because no significant impact is anticipated, no mitigation measures are included.

4.1.5 Health and Safety

Criteria for Significance Determination

The City of San Diego Development Services Department's Significance Determination Thresholds (August 2006) identifies three categories of issues: hazardous materials/public safety, human health, and brush management. The first discusses the redevelopment of landfill sites, and potential exposure of worker and the public during the redevelopment process. It also discusses potential hazards associated with underground storage tanks, floods, and other safety hazards, such as airports. The second discusses potential health hazards, such as exposure to disease carrying vectors, sewage spills, and electronmagnetic fields. The third discusses specialized safety issues where normal brush management requirements cannot be met, such as a residence abutting an open space area where brush thinning may be precluded.

The purpose of the landfill is to separate the public from waste materials that could pose a threat to public health and safety, and to manage it in a way that minimizes these threats. For example a liner is provided in portions of the landfill to further decrease the potential spread of potentially harmful constituents, although, as explained in the water quality section, the existing permitted landfill, including areas without the liner, have had no significant impacts.

The City of San Diego evaluates exposure of the public to hazardous materials, health risks, and fire danger associated with vegetative fuel load and controlled with brush management. The EIS/EIR for the GDP found that the measures prescribed in law for operation of the facility precluded potential significant impacts associated with these operations.

4.1.5-1 Would the Proposed Project cause a rupture in the landfill liner?

A. Environmental Consequences

The most vulnerable time for the liner, which underlays most of Phase II (see section 4.1.14-2), is during deposition of initial layers of waste. Although the synthetic liner is protected before the initial waste deposits are spread, there is an opportunity for jabs and tears during bottom cell construction. However, all the initial cells have been constructed under the existing permit. Layers on the existing trash pose no additional threat to the liner. Height and weight of refuse are not limiting factors in liner design.

B. Analysis of Significance

The Proposed Project would make no changes to the existing operations, therefore, no significant impact is anticipated.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.5-2 Would the Proposed Project expose the public or onsite workers to toxic substances?

A. Environmental Consequences

Hazardous materials are prohibited from entering the landfill under the existing permit, and no changes to the landfill's classification are proposed. The landfill operation includes a load-check program to ensure their exclusion, and no changes to this program are proposed. A separate facility is located near the fee booth where the public can take household hazardous waste, including used oil, pesticides, and cleaners. The public is provided a separate tipping area, so that there is no risk of a traffic accident involving a passenger car and a refuse truck. This separation would not change with the Proposed Project. Employees are provided safety gear, including orange vests, to increase visibility and reduce accidents, and ear protection, to protect workers from landfill noise and aircraft overflight noise. No changes to safety procedures are proposed.

To ensure that the mixed municipal waste that is disposed of in the landfill poses no hazards, daily cover and other requirements of RCRA, subtitle D control areas that could otherwise be suitable for vectors, or otherwise expose workers, the public or the environment to health or safety hazards. No changes to these standard operations are proposed. In addition to required health and safety measures, after the certification of the GDP EIS/EIR, the landfill has voluntarily entered the ISO 14001 program. ISO 14001 is an internationally accepted specification for an environmental management system. It specifies requirements for establishing an environmental policy, determining environmental aspects and impacts of products/activities/services, planning environmental objectives and measurable targets, implementation and operation of programs to meet objectives and targets, checking and corrective action, and management review. The existing Environmental Management System (EMS) provided for this facility under the ISO program is intended to improve its operations above and beyond what is required in law.

B. Analysis of Significance

The Proposed Project would make no changes to the existing operations, therefore, no significant impact is anticipated.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.6 Cultural Resources

Criteria for Significance Determinations

Impact assessments typically focus on resources eligible for the California Register of Historical Resources, National Register of Historic Places, sites deemed significant during a resource survey, and/or resources considered sacred or sensitive to Native American groups. It is also important to consider the relative importance of the resources, the integrity of the resource, and the relative degree of protection provided for this type of resource.

4.1.6-1 Would the Proposed Project include grading of any previously undisturbed areas, not already used for landfill purposes, which have a high sensitivity for archeological resources?

A. Environmental Consequences

The 1980 EIR determined that the original landfill impacted no recorded cultural sites or resources, resulted in no significant impacts to known or unknown sites, and required no monitoring. The Proposed Project would not disturb any soil that has not already been subject to landfill operations. There would be no change in the existing condition regarding impacts to this type of resource.

B. Analysis of Significance

The Proposed Project would not expand the footprint, no previously undisturbed areas would be graded; therefore, no archeological resources could be impacted.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.7 Paleontological Resources

Criteria for Significance Determinations

According to the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), projects requiring more than 1,000 cubic yards of excavation at depths of 10 feet or more in a high resource potential formation, or more than 2,000 cubic yards of excavation in a moderate resource potential formation, may result in a significant impact on paleontological (fossil) resources.

4.1.7-1 Would the Proposed Project result in the loss of paleontological resources of known significance?

A. Environmental Consequences

The project site is underlain by the following formations, which are listed in order of their resource potential: Scripps, Friars, Stadium Conglomerate, terrace deposits, alluvium, and slopewash. The potential for finding resources within these formations varies; however, the project would result in no disturbance, grading, or excavation outside the existing footprint of the landfill or into these formations. Although a significant amount of waste would be imported, and soils already stockpiled onsite would be moved, no intact paleontological formations would be disturbed. The 1980 EIR determined that the original landfill had no impacts to paleontological resources. The type of material underlaying the site was of high mineral value as aggregate, and so was extracted. The Proposed Project would not disturb any soil that has not already been subject to landfill operations. There would be no change in the existing condition regarding impacts to this type of resource.

B. Analysis of Significance

The Proposed Project would not expand the footprint; therefore, no significant impact is anticipated.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.8 Mineral Resources

Criteria for Significance Determinations

The Surface Mining and Reclamation Act of 1975 mandated mineral land classification by the state geologist for the purpose of protecting mineral resources within the state from irreversible land uses that would preclude extraction. Construction aggregate was selected by the State Mining and Geology Board to be the initial commodity target for classification because of its importance to society.

The state geologist designated Mineral Zone Categories to assist in the analysis of mineral deposits. MRZ-1 is an area where adequate geological information indicates that no significant mineral resources are likely to be present. MRZ2a areas are known to be underlain by significant aggregate resources, and MRZ2b areas are where resources are likely. MRZ3a areas have known mineral resource occurrence, and MRZ3b have inferred mineral resource occurrence, whereas MRZ4 areas have no known mineral resource occurrence. Building over valuable mineral resource areas makes them unavailable for future use. The importance, value, and abundance of the underlying deposits guides the significance analysis.

4.1.8-1 Would the Proposed Project result in the loss of mineral resources of known significance?

A. Environmental Consequences

The City, which is the landfill operator, conducted studies identifying the presence of aggregate resources, making the site an MRZ2a zone, although it was not mapped as such by the state geologist. The City then investigated the opportunity to exploit underlying mineral resources, while also increasing the capacity of the landfill. Useful aggregate materials were excavated to the degree considered appropriate considering the need to protect groundwater. The mining pit was then lined and prepared for filling. Therefore no loss of valuable resources occurred. The Proposed Project would not change this existing condition.

B. Analysis of Significance

The Proposed Project would not alter the existing condition, therefore, no significant impact is anticipated.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.9 Noise

Criteria for Significance Determination

Local, state, and federal laws, regulations, and guidelines are designed to ensure that noise levels are compatible with a person's life, health, and enjoyment of property.

Community Noise Equivalent Level (CNEL) measurements are a weighted average of sound levels gathered throughout a 24-hour period. This is a measure of ambient noise. Different weighting factors apply to day, evening, and nighttime periods, recognizing that people are usually most sensitive to noise late at night, and are more sensitive in the evening than in daytime. CNEL depends not only on the noise level of individual events, but also on the number of events during the measurement period.

The "decibel" (dB) is used to measure noise intensity. It is a "dimensionless unit," similar to percent. Decibels are useful because they allow even very large or small ratios to be represented with a conveniently small number. This is achieved by using a logarithm. The bel (symbol B) is the reduction in audio level over a 1 mile (1.6 km) length of standard telephone cable. The bel was too large for everyday use, so the decibel (dB), equal to 0.1 bel (B), is used. The d is lowercase, because it represents the prefix deci-, and the B is capitalized, because it is an abbreviation of a name-derived unit. The bel is named for Alexander Graham Bell. Written out it becomes decibel. Since the human ear is not equally sensitive to all frequencies of sound, noise levels at maximum human sensitivity — middle A and its higher harmonics (between 2 and 4 kilohertz) — are factored more heavily into sound descriptions using a process called frequency weighting. "A-weighting" parallels the sensitivity of the human ear when it is exposed to normal levels. Frequency weighted sound levels are still expressed in decibels (with unit symbol dB), although it is common to see dBA or dB(A) used for A-weighted sound levels. Finally, "dBA Leq" totals all the noise and all the quiet in a specific period, and then spreads it out evenly across the period to give an average reading.

In air, 95 dB is considered unsafe for prolonged periods and 120 dB can cause perforation of the ear drum (tympanic membrane). Windows break at about 163 dB.

The military has established outdoor noise equivalent standards for various uses, with levels in the 75 to 79 dBA range being considered acceptable for flight line operations.

Federal occupational noise limits (Code of Federal Regulations, Title 29) establishes standards that depend on the hours per day of exposure. For an eight hour work day, exposure should not exceed 90 dBA, but for a short exposure of 15 minutes or less, noise can be as high as 115 dBA.

The City of San Diego provides guidelines for noise limits in the Progress Guide and General Plan, and in the Noise Abatement and Control Ordinance. The Progress Guide and General Plan establishes Community Noise Equivalent Levels for various uses. According to the City of San

Diego Development Services Department's Significance Determination Thresholds (August 2006), a project that would generate noise levels at the property line that exceeds the City's Noise Ordinance Standards is considered to have potentially significant impacts. If a non-residential use, such as a commercial, industrial or school use, is proposed to abut an existing residential use, the decibel level at the property line should be the arithmetic mean of the decibel levels allowed for each use as set forth in Section 59.5.0401 of the Municipal Code. Although the noise level may be consistent with the City's Noise Ordinance Standards, a noise level above 65 dB (A) CNEL at a residential property line could be considered a significant environmental impact.

When evaluating noise impacts it is important to consider if the impact will create a significant increase in existing ambient noise, or if it will expose people to noise levels that exceed the City's adopted noise standards. The City provides a limit of 75 dB for industrial areas.

Areas from which noise should be considered include the property line, or from sensitive wildlife areas. In particular, according to the standards used in the 1994 EIS/EIR for the GDP, noise impacts on gnatcatchers should not exceed 60 Leq.

4.1.9-1 Would the increased height of the landfill result or create a significant increase in ambient noise levels?

A. Environmental Consequences

Ambient noise levels at the site are high as a result of the existing highways and aircraft overflights. Noise levels were measured in 1993 for the GDP at two sites over 24-hour periods from May 26 until June 2. The first site was located on the eastern boundary of the property, due east of the fee booth, and the second site was located on the southern portion of the property, just south of where the biosolids center is now located.

TABLE 4.1.9-1
Measured Noise Levels

	May 26 (Wednesday) to May 27		May 28 (Friday) to May 29	
Time of Day	**Location 1**	**Location 2**	**Location 1**	**Location 2**
4:00 pm	71	73	71	57
5:00 pm	68	72	68	56
6:00 pm	72	71	72	56
7:00 pm	73	71	73	53
8:00 pm	60	56	60	54
9:00 pm	53	50	53	47
10:00 pm	48	49	48	57
11:00 pm	52	52	52	53
12:00 am	43	46	43	41
1:00 am	45	46	45	42
2:00 am	47	42	47	43
3:00 am	47	41	47	43
4:00 am	40	43	41	44
5:00 am	48	47	49	49
6:00 am	55	52	55	48
7:00 am	52	55	52	48
8:00 am	73	72	74	49
9:00 am	65	67	64	49
10:00 am	56	55	56	59
11:00 am	67	67	66	55
12:00 pm	58	59	58	56
1:00 pm	62	67	63	61
2:00 pm	66	66	65	54
3:00 pm	80	78	81	55

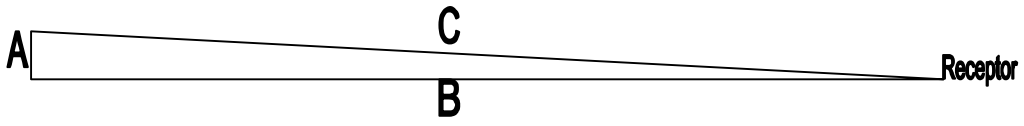
Source: Appendix of Technical Report for the EIS/EIR for the GDP.

As can be seen in Table 4.1.9-1, 81 dBA is the maximum reading recorded, and 40 dBA is the minimum reading obtained. Overflight events increased readings by as much as 20 dB. Typical highway noise levels during landfill operating hours reach this level regularly as a result of trucks traveling at a 55 mile per hour rate of speed (noise levels from traffic increases as speed increases, resulting in most highways exceeding 80 dBA according to U.S. EPA's website). All receptors are on the far side of this source. Sound diminishes logarithmically with distance, thus the slow-moving equipment used at the landfill, located .2 miles farther from receptors, cannot be detected.

B. Analysis of Significance

Most noise analyses consider two factors in assessing noise impacts: intensity of the noise, and distance from the source. However, topography can also influence noise, for example intervening hills or vegetation can dampen noise effects. Noise that has no obstacles between the point of generation and the receptor travels more readily.

By raising the height of the landfill by a maximum of 20 feet, the Proposed Project could increase the receptors having no obstacles between them and the existing noise generating equipment at the landfill. Two factors limit this possibility however. First, the noise analysis performed in 1993 assumed, as a worst case situation, no intervening interference between receptors and the noise generators. Second, the area is relatively flat and the height increase is small. To appreciate the relative effect of the height increase, the nearest residence is 4,919 feet from WML. Thus if a triangle were to be drawn representing the increased height of 20 feet, the increment would be so small it could not be seen at the scale of the triangle depicted below.



Furthermore, by increasing the height of the landfill, the hypotenuse of the triangle (C) or the distance the sound must travel to reach the receptor, would be slightly increased (compared with distance B). This effect produces a reduction of sound. A rule of thumb is a loss of 3 dBA for each doubling of distance.

Distance is an important factor when considering noise effects. The 1993 study evaluated sound from South Miramar, where the biosolids facility and cogeneration facility were subsequently built. This site is much closer to receptors than WML (only 1,500 feet). The biosolids facility contains centrifuges and other noisy equipment. A chart depicting some of the typical construction noise levels generated by landfill equipment provided the following data, which was included in the 1994 EIS/EIR.

EQUIPMENT	EXPECTED NOISE (dB at 50 feet)
Compactors	72-73
Front Loaders	72-83
Scrapers, Graders	80-92
Trucks	82-93

Noise associated with the biosolids facility, analyzed in the 1994 EIS/EIR, described a maximum of 91 dBA for all exterior equipment, a noise generation level higher than for landfill operations. The EIS/EIR found no significant impacts associated with the biosolids facility, which is significantly louder, and much closer to receptors than the WML. The 1980 EIR also identified no noise impacts from WML, concluding that noise would be masked by aircraft noise and would not be perceptible in the closest communities.

An additional consideration is noise impacts on workers. Currently, where workers could be exposed to noise levels in excess of OSHA standards, ear protection is required. There would be no change to this existing condition.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.9-2 Would the increased height of the landfill result in the exposure of people to noise levels that exceed the City's adopted noise ordinance?

A. Environmental Consequences

As explained above, noise levels would not change as a result of the Proposed Project. Just as the noise of the existing operation cannot be detected by receptors on the far side of the highway, so the noise of the Proposed Project, which would slightly increase the separation distance, thus reducing the potential for perceived noise, would not be detectible by these receptors.

B. Analysis of Significance

The Proposed Project is expected to result in no detectible change in noise levels, and would therefore not have a significant impact.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.9-3 Would the Proposed Project result in the exposure of people to current or future transportation noise levels that exceed standards established in the transportation Element of the General Plan or an adopted ALUCP?

A. Environmental Consequences

The Proposed Project would not change existing traffic. No changes to the operation of the facility are proposed. Therefore there would be no change to existing traffic-related impacts, including noise.

B. Analysis of Significance

The Proposed Project would result in no impacts or violate any standards in the ALCUP.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.10 Traffic

Criteria for Significance Determination and Methods

The City's roadway LOS standards are provided in Table 3.3.10-1. Intersections were analyzed using methods in Chapter 16 of the *Highway Capacity Manual (HCM) 2000, Transportation Research Board Special Report 209*. The HCM ranks LOS according to delay time, in terms of seconds per vehicle. The service saturation flow rate is determined by adjusting the ideal saturation according to specific conditions, including:

- Lane width,
- On-street parking,
- Bus stops,
- Pedestrian volume,
- Traffic composition (or percentage of heavy vehicles), and
- Shared lane movements (e.g., through and right –turn movements sharing the same lane).

Table 3.3.10-2 shows the LOS standards for intersections. Consistent with Caltrans requirements, the signalized intersections at SR-52 freeway ramps were analyzed using the Intersecting Lane Volume (ILV) procedures as described in Topic 406 of the *Caltrans Highway Design Manual* (HDM), 5th Edition. This analysis categorizes intersections as being "under capacity," "at capacity," or "over capacity," as shown in Table 3.3.10-6.

In the City of San Diego, LOS D is considered acceptable for roadway and intersection operations.

4.1.10-1 Would the Proposed Project result in substantial increases in the projected traffic?

A. Environmental Consequences

The Proposed Project would not change the existing 2,000 trip per day limit. No increase in traffic into the site is expected as a result of the Proposed Project.

B. Analysis of Significance

The Proposed Project would not alter the existing conditions; therefore, no significant impact is anticipated.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.10-2 Would the Proposed Project result in the addition of a substantial amount of traffic to a congested freeway segment, interchange, or ramp?

A. Environmental Consequences

The Proposed Project would not change the existing 2,000 trip per day limit. No increase in traffic on any freeway segment, interchange, or ramp is expected as a result of the Proposed Project.

B. Analysis of Significance

The Proposed Project would not alter the existing conditions; therefore, no significant impact is anticipated.

C. Mitigation Measures

Since no significant impact is expected, no mitigation measures are proposed.

4.1.11 Public Services and Facilities

Criteria for Significance Determinations

Appendix G of the CEQA Guidelines asks whether a project would result in substantial adverse physical impacts from the construction or alteration of government facilities needed to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. The Guidelines also discuss health and safety issues that can result from the introduction of people to hazardous situations. The City of San Diego Development Services Department's Significance Determination Thresholds (August 2006) also focus on construction impacts of new or altered facilities.

4.1.11-1 Would the Proposed Project result in the need for new or expanded facilities?

A. Environmental Consequences

The Proposed Project is located at an existing landfill, and additional public facilities would therefore not be needed. The Proposed Project extends the life of an existing public facility. The Proposed Project would have no impact on emergency response times, would not require the development of new facilities, and would provide a beneficial effect on public services by providing four additional years of disposal capacity. Effect on other services would not differ from existing effects, including positive assistance that can be provided by the staff and equipment at the landfill in an emergency.

B. Analysis of Significance

Although the beneficial effect of the Proposed Project is limited to approximately four years, because of the difficulty disposing of waste, even an extra four years is disposal capacity is considered to be a significant beneficial effect.

C. Mitigation Measures

Since no significant adverse impact is expected, no mitigation measures are proposed.

4.1.12 Public Utilities

Criteria for Significance Determinations

According to the City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), public utilities include electrical power and natural gas, solar energy, communications systems, solid waste services, water and sewer services and water conservation. Utility providers identify shortages of services, and each utility establishes their own criteria for utility capacity and service expansion.

4.1.12-1 Would the Proposed Project result in a need for new systems, or require substantial alterations to existing utilities, the construction of which would create physical impacts?

A. Environmental Consequences

Existing utilities that serve the existing landfill are adequate to serve the Proposed Project, which includes no changes in operations. The Proposed Project would place no new demand on any public utility, and would provide four extra years of disposal capacity.

B. Analysis of Significance

No negative impacts on any utility would occur, but the extra four years in disposal capacity is considered a significant beneficial impact.

C. Mitigation Measures

Since no significant adverse impact is expected, no mitigation measures are proposed.

4.1.12-2 Would the Proposed Project require excessive amounts of fuel or energy (e.g., natural gas) or power?

A. Environmental Consequences

The Proposed Project would incur no new energy demands, and would provide increases in power as a result of the gas extraction and utilization program.

B. Analysis of Significance

Although the landfill does not generate enough energy to eliminate the existing deficit in local generation sources, the power that is generated from landfill gas is "green power," for which there are state and federal procurement mandates. Thus, the contribution of the landfill to regional power supplies is a significant beneficial effect.

C. Mitigation Measures

Since no significant negative impact is expected, no mitigation measures are proposed.

4.1.12-3 Would the Proposed Project require the use of excessive amounts of water? Would predominantly drought resistant vegetation be used for landscaping?

A. Environmental Consequences

Existing utilities that serve the existing landfill would be adequate to serve the Proposed Project, which includes no changes in operations. The Proposed Project would place no new demand on any public utility, and would provide four extra years of disposal capacity. Existing water consumption for landfill operations varies greatly. It averages approximately 40,000 gallons per month. No change to existing water consumption is proposed. Currently, reclaimed water and water collected from drainage and leachate controls is used onsite primarily for dust control. These conservation measures would be continued. Currently only native revegetation is proposed, and this vegetation is specifically selected to require no irrigation.

B. Analysis of Significance

No change to existing water consumption is proposed. Therefore, no significant impact is expected.

C. Mitigation Measures

Since no significant adverse impact is expected, no mitigation measures are proposed.

4.1.13 Landform Alteration/Visual Quality

Criteria for Significance Determination and Methodology

Federal Significance Criteria

Following federal guidance, an adverse visual impact occurs within public view when:

- A project perceptibly changes existing features of the physical environment so that they no longer appear to be characteristic of the subject locality;
- A project introduces new features to the physical environment that are perceptibly uncharacteristic of the region and/or local; and/or,
- Aesthetic features of the landscape or urban setting become less visible (e.g., partially or totally blocked from view) or are removed.

CEQA Criteria

According to City of San Diego significance criteria (August, 2006), there is the potential for a significant aesthetics impact if the Proposed Project would:

- Block public views from designated open space areas, roads, or parks or to significant visual landmarks or scenic vistas;
- Severely contrast with the surrounding neighborhood character;
- Significantly alter the natural (or naturalized) landform;
- Have a negative visual appearance; and/or, emit or reflect a significant amount of light and glare.

Because it would not interfere with any views, change the character or appearance of the area, or include a lighting element, the Proposed Project would have no potential impacts under any of these criteria, except for the alteration of a natural (or naturalized) landform. The City of San Diego Development Services Department's Significance Determination Thresholds (August 2006), provide further guidance for determining the extent of the significance of the landform alteration. The significance threshold would be exceeded if the project would:

- Alter more than 2,000 cubic yards of earth per graded acre by either excavation or fill and do one or more of the following:
    - Disturb steep (25 percent gradient or steeper) sensitive slopes in excess of the encroachment allowances of the Environmentally Sensitive Lands regulations and steep hillside guidelines as defined by the Municipal Code;
    - Create manufactured slopes higher than 10 feet or steeper than 2:1; or

- Change the elevation of steep slopes (25 percent gradient or steeper) from existing grade by more than five feet.

However, the above conditions may not be considered significant if one or more of the following apply:

- The proposed grading plans clearly demonstrate, with both spot elevations and contours, that the proposed landforms would very closely imitate the existing onsite landform and/or the undisturbed, pre-existing surrounding neighborhood landforms. This may be achieved through "naturalized" variable slopes;
- The proposed grading plans clearly demonstrate, with both spot elevations and contours, that the proposed slopes follow the natural existing landform and at no point vary more than 1.5 feet from the natural landform elevations; and/or,
- The proposed excavation or fill is necessary to permit installation of alternative design features such as step-down or detached buildings, non-typical roadway or parking lot designs, and alternative retaining wall designs that reduce the Proposed Project's overall grading requirements.

Methodology

Topographical data were collected, viewsheds were defined, and Key Observation Points (KOPs) and potential sensitive viewers were identified. Thirteen KOPs were identified as representing both critical locations that provide high visibility to relatively large numbers of viewers and also sensitive viewing locations such as residential areas, recreation areas, and vista points. The KOPs have visual simulation potential. These KOPs include a diverse range of viewer types within a close proximity of the Proposed Project site. Locations of these viewpoints are shown in Figure 10.

KOP 1 – Residential view from Steinbeck Avenue in University City
KOP 2 – Travelers' view from Southbound I-805
KOP 3 – Recreational view from University Gardens Park
KOP 4 – Residential view from Wolfstar Court in University City
KOP 5 – Travelers' view from Eastbound SR-52
KOP 6 – Residential view from Palmyra Avenue in Clairemont Mesa
KOP 7 – Travelers' view from Westbound SR-52 (at closest point to the landfill)
KOP 8 – Travelers' view from Northbound I-805
KOP 9 – Residential View from Kearny Lodge Trailer Park
KOP 10 – Travelers' view from Westbound SR-52
KOP 11 – Recreational view from Hickman Field in Kearny Mesa
KOP 12 – Travelers' view from Westbound SR-52 at SR-163 Interchange
KOP 13 – Hiker view from Marian Bear Natural Park

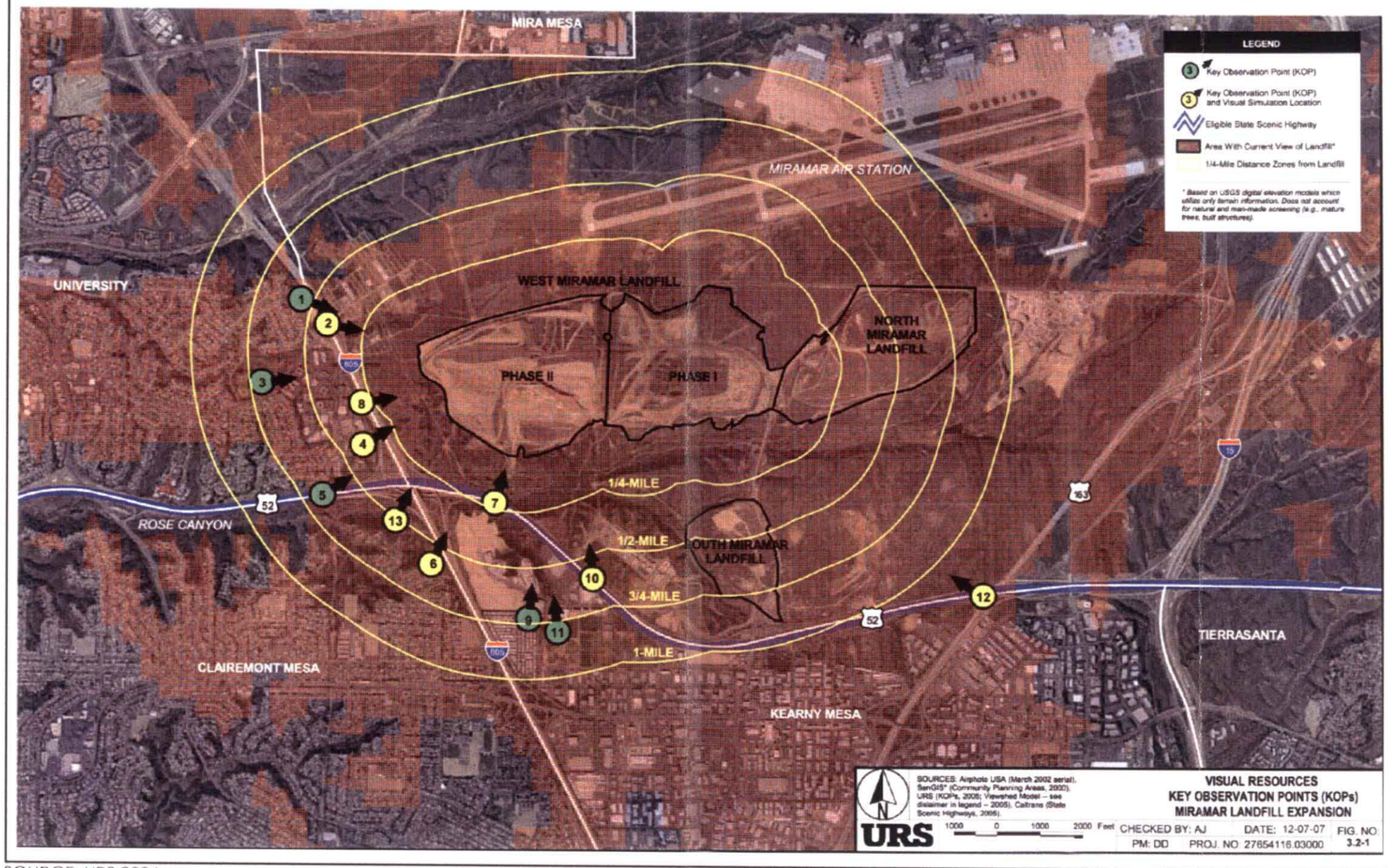
The visual impact for each KOP was analyzed by considering the severity of the change resulting from the Proposed Project, and the viewer response, or susceptibility, to the change. Severity ranking was based on three factors: visual contrast, project dominance, and view impairment. Viewer susceptibility ranking was based on existing visual quality, viewer sensitivity, and viewer exposure. Rankings of "low," "moderate," or "high" were given to the each KOP with regard to these two parameters, severity and susceptibility, and the matrix below (Table 4.1.13-1) was used to determine significance of impacts.

TABLE 4.1.13-1
Visual Resources Impact Significance Chart

Impact Susceptibility	Impact Severity		
	Low	Moderate	High
Low	Insignificant	Insignificant	Adverse but less than Significant
Moderate	Insignificant	Adverse but less than Significant	Significant but Feasibly Mitigated
High	Insignificant	Adverse but less than Significant	Significant and Unavoidable

Source: URS Corporation, 2005.

Figure 10 - Key Observation Points (KOPs)



SOURCE: URS 2006

03/16/07

Miramar Landfill EIS/EIR

Key Observation Points (KOPs)

FIGURE 10

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4.1.13-1 Would the Proposed Project substantially change the natural topography or other ground surface relief features?

A. Environmental Consequences

The Proposed Project would mimic the permitted, existing topography almost exactly, with the exception that it would raise the final grade by a maximum of 20 feet. The Closure Plan has been modified as required by regulatory agencies to address changes in drainage that would result from the 15 to 20 foot height increase; however the drainage structure changes would involve minor changes to down drains and catch basins, which would not be perceptible from offsite viewing areas.

The Proposed Project would occur on manufactured, or man-modified topography within the footprint of the existing landfill. Although the Proposed Project would grade 468 acres and move more than 13 million cubic yards of fill, which exceeds the City significance threshold of 2,000 cubic yards of earth per acre, the Proposed Project would only alter man-modified topography and would not change the natural topography or other ground surface relief features. The proposed grading plans demonstrate, with spot elevations and contours, that the proposed landforms would very closely imitate the existing onsite landform because the Proposed Project would raise the height of the landfill by a maximum of 20 feet, but not alter the landform in any other way.

The Proposed Project would potentially cause landfill activities to be visible for approximately four additional years. This would extend the existing impacts associated with the visibility of bare dirt and construction operations an additional four years. In reality, however, as filling activities move within the footprint of the phase I and II areas, over those four years, landfilling activities would only be prominent some of the time, as is currently the case.

B. Analysis of Significance

The existing, permitted landfill will provide an engineered final appearance. The engineered shape of the WML was found not to have significant visual impacts in the 1980 EIR. The proposed height increase would raise this contour by a maximum of 20 feet and would occur over manufactured topography. There would be no impacts to natural topography and other ground surface relief features.

The Proposed Project would extend the period of time landfill operations which would potentially be visible by approximately four additional years.

C. Mitigation Measures

Since no significant impact to natural topography in the area is expected, no mitigation measures are proposed.

4.1.13-2 Would the Proposed Project result in the loss, covering, or modification of any unique physical feature such as a natural canyon or hillside slope in excess of 25 percent gradient?

A. Environmental Consequences

The Proposed Project would only affect prior man-modified topography and would not result in the loss, covering, or modification of any unique physical feature such as a natural canyon or hillside slope in excess of 25 percent gradient. No natural or sensitive slopes would be affected by the Proposed Project. In some locations, the Proposed Project would create manufactured slopes higher than 10 feet. This would typically be deemed a significant visual impact according to City criteria. However, the proposed grading plans clearly demonstrate, with spot elevations and contours, that the proposed landforms would very closely imitate the existing onsite landform, because the Proposed Project proposes to raise the height of the landfill by 15 to 20 feet, but not alter the landform in any other way. Thus, no significant visual impact is identified under the City's criteria, and the Proposed Project would not result in the loss, covering, or modification of any unique physical feature.

B. Analysis of Significance

The proposed vertical expansion would not have a significant impact on any unique physical feature or steep slope, because the Proposed Project would only alter man-modified topography.

C. Mitigation Measures

Since no significant impact to a unique physical feature or steep slope in the area is expected, no mitigation measures are proposed.

4.1.13-3 Would the Proposed Project affect the visual quality of the site and surrounding area, particularly with respect to views from any major roadways and public viewing areas?

A. Environmental Consequences

Four private (residential) viewing areas and nine public (roadway and recreational) viewing areas were identified as representing KOPs. Although some KOPs were found to have high impact susceptibility potential, these KOPs had low impact severity rankings. Therefore, it was determined that the Proposed Project would not significantly affect the visual quality of the area viewed from those KOPs. Three of the KOPs, KOP 2, 7 and 13, had both a moderate susceptibility ranking and a moderate severity ranking. Therefore the impact of the Proposed Project on viewers from these points was considered adverse but less than significant impacts. Existing and anticipated views from KOPs 2, 4, 6, 7, 8, 10, 12, and 13 are provided in Figures 11 to 18. Descriptions of anticipated visual impacts from each of the KOPs are provided in the

Visual Impact Assessment, EIS/EIR Appendix G, pages 3-13 through 3-20. Table 4.1.13-2 summarizes anticipated visual impact levels at each KOP.

In addition, the Proposed Project would not have a substantial effect on a scenic vista, or substantially damage scenic resources, because no scenic vistas or resources exist in the vicinity of the Proposed Project.

B. Analysis of Significance

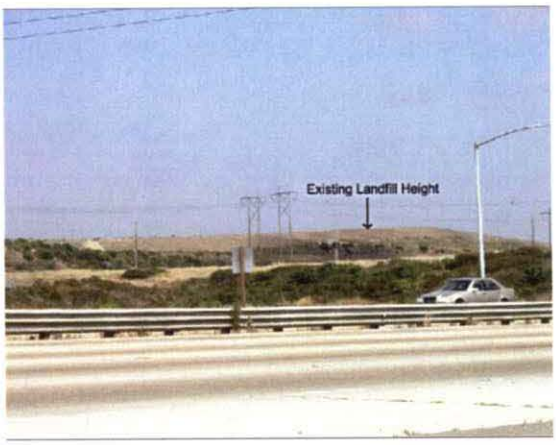
The Proposed Project's impacts on the visual quality of the area were found to be insignificant with respect to views from residences, roadways, and recreational areas.

C. Mitigation Measures

Since no significant impact to the visual quality of the area is expected, no mitigation measures are proposed.

Figure 11 - Existing and Anticipated Views from KOP #2

Existing View: Traveler Southbound Along I-805 @ Governor Drive



Visual Simulation of Project (Before Re-vegetation) Traveler Southbound Along I-805 @ Governor Drive

Visual Simulation of Project (After Re-vegetaion) Traveler Southbound Along I-805 @ Governor Drive

SOURCE: URS, 2006

03/14/07

	Miramar Landfill EIS/EIR Existing and Anticipated Views from KOP #2	FIGURE 11

Figure 12 - Existing and Anticipated Views from KOP #4

Existing View: Residential View From University City @ Wolfstar (Direct unobstructed view from backyards.)

Visual Simulation of Final Project (Before Re-vegetation) Residential ViewFrom University City @ Wolfstar(Direct unobstructed view from backyards.)

Visual Simulation of Project (After Re-vegetation) Residential View From University City @ Wolfstar (Direct unobstructed view from backyards.)

SOURCE: URS, 2006 03/14/07

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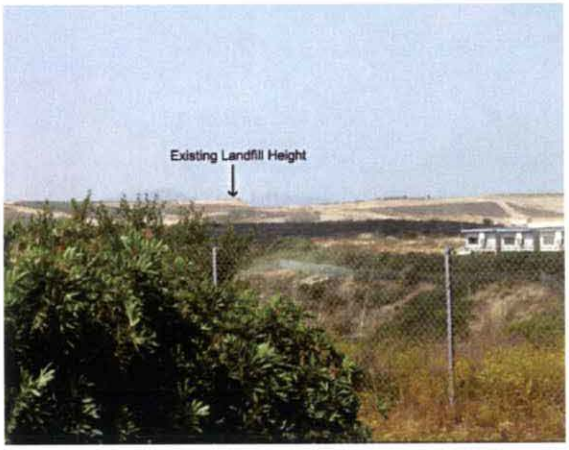
Existing and Anticipated Views from KOP #4

FIGURE 12

Figure 13 - Existing and Anticipated Views from KOP #6

Existing View: Residential View from Clairemont Mesa @ Palmyra



Visual Simulation of Project (Before Re-vegetation) Residential View from Clairemont Mesa @ Palmyra

Visual Simulation of Project (After Re-vegetation) Residential View from Clairemont Mesa @ Palmyra

SOURCE: URS, 2006

03/14/07

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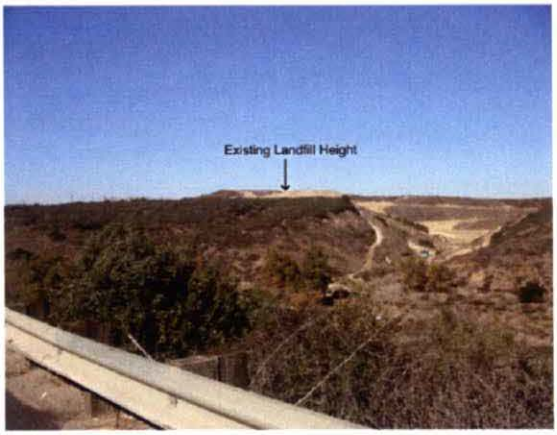
Existing and Anticipated Views from KOP #6

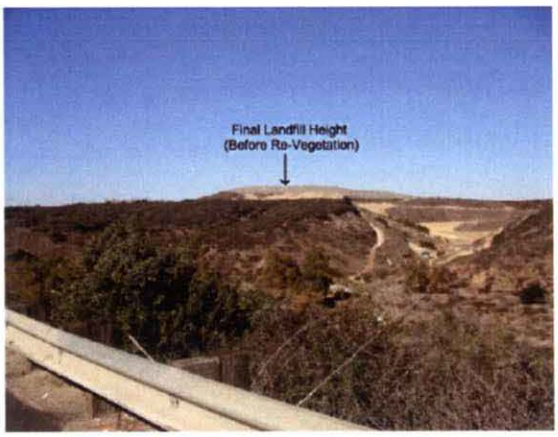
FIGURE 13

Figure 14 - Existing and Anticipated Views from KOP #7

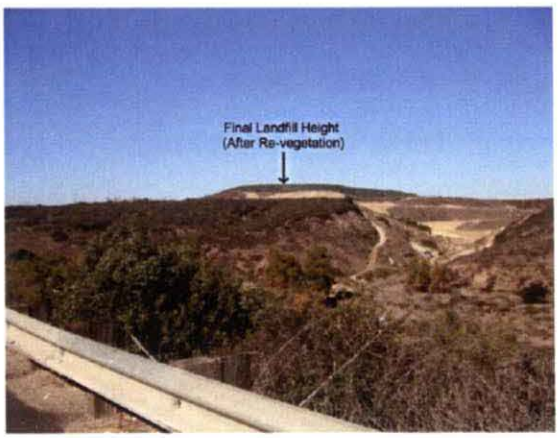
Existing View: Traveler View
Westbound Along State Route 52
@ Point Closest to Landfill



Visual Simulation of Final Project
(Before Re-vegetation) Traveler View
Westbound Along State Route 52
@ Point Closest to Landfill



Visual Simulation of Project
(After Re-vegetation)
Traveler View Westbound
Along State Route 52
@ Point Closest to Landfill



SOURCE: URS, 2006

03/14/07

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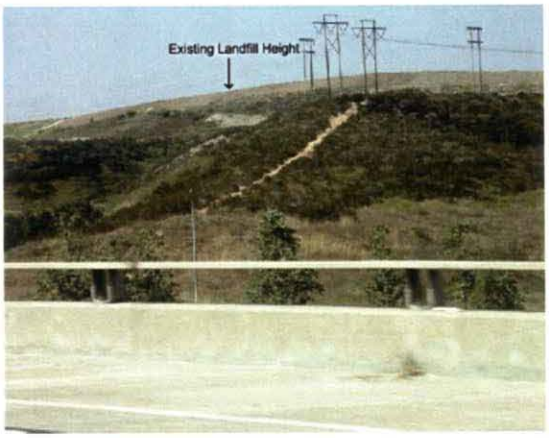
Existing and Anticipated
Views from KOP #7

FIGURE
14

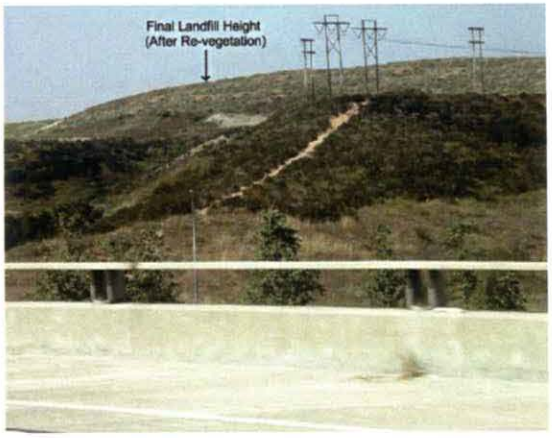
Figure 15 - Existing and Anticipated Views from KOP #8

Existing View: Traveler View From Closest Point Along I-805 Northbound



Visual Simulation of Final Project (Before Revegetation) Traveler View From Closest Point Along I-805 Northbound

Visual Simulation of Project (After Re-vegetation) Traveler View From Closest Point Along I-805 Northbound



SOURCE: URS, 2006

03/14/07

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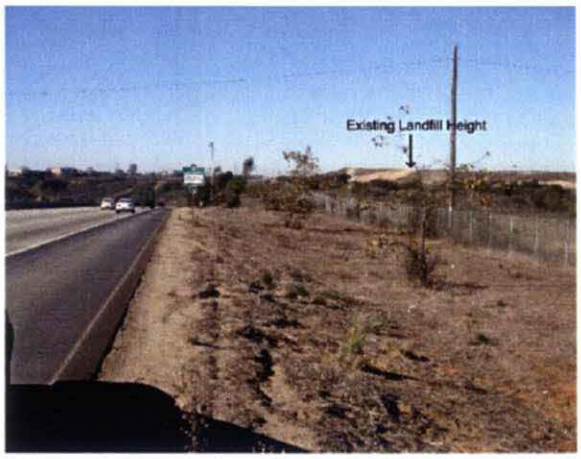
Existing and Anticipated Views from KOP #8

FIGURE 15

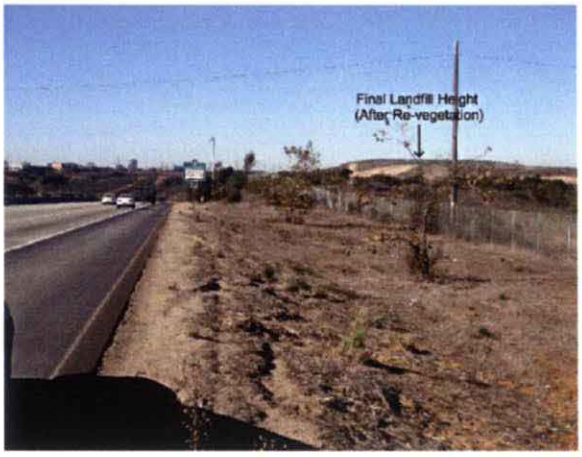
Figure 16 - Existing and Anticipated Views from KOP #10

Existing View: Traveler View Westbound From State Route 52



Visual Simulation of Final Project (Before Re-vegetation) Traveler View Westbound From State Route 52

Visual Simulation of Project (After Re-vegetation) Traveler View Westbound From State Route 52



SOURCE: URS, 2006

03/14/07

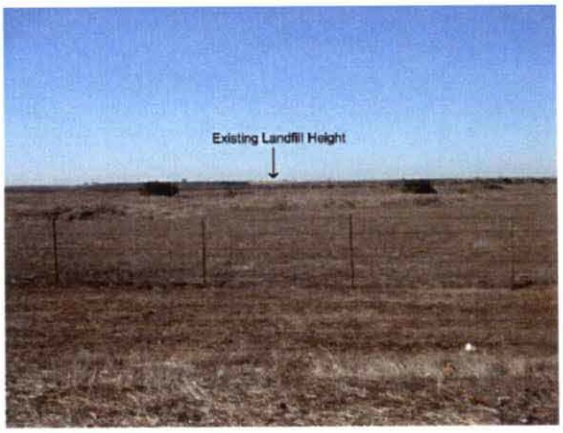
Miramar Landfill EIS/EIR

Existing and Anticipated Views from KOP #10

FIGURE 16

Figure 17 - Existing and Anticipated Views from KOP #12

Existing View: Traveler View @ SR-52/SR 163 Interchange



Visual Simulation of Final Project (Before Re-vegetation) Traveler View @ SR-52/SR 163 Interchange

Visual Simulation of Project (After Re-vegetation) Traveler View @ SR-52/SR 163 Interchange

SOURCE: URS, 2006

03/14/07

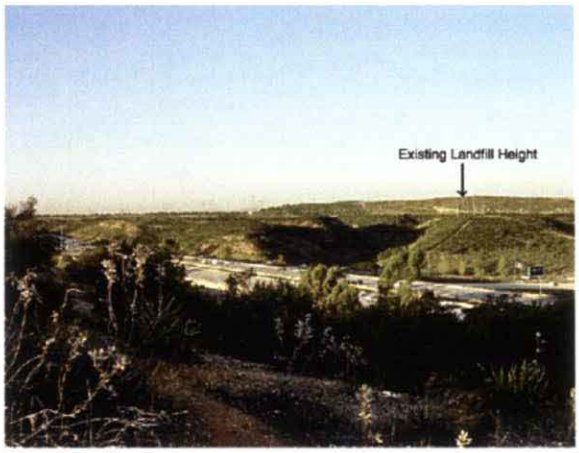
Miramar Landfill EIS/EIR

Existing and Anticipated Views from KOP #12

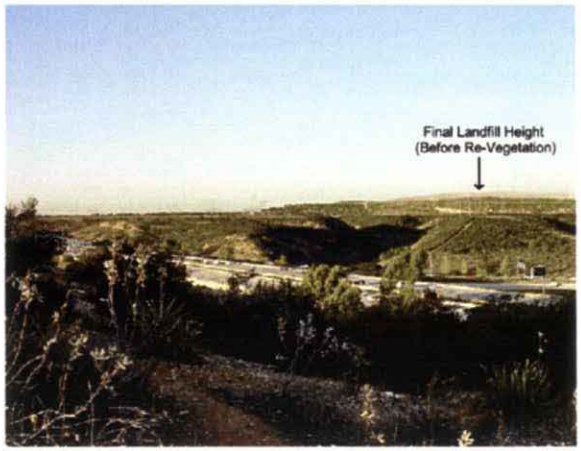
FIGURE 17

Figure 18 - Existing and Anticipated Views from KOP #13

Existing View: Hiker View From Marian Bear Natural Park



Visual Simulation of Final Project (Before Re-vegetaion) Hiker View From Marian Bear Natural Park



Visual Simulation of Project (After Re-Vegetation) Hiker View From Marian Bear Natural Park

SOURCE: URS, 2006

03/14/07

Miramar Landfill EIS/EIR

Existing and Anticipated Views from KOP #13

FIGURE 18

TABLE 4.1.13-2
Visual Impact Significance Summary by KOP

KOP	Visual Impact		
	Impact Susceptibility Ranking	Impact Severity Ranking	Impact Classification
1	Low	Low	Insignificant[1]
2	Moderate	Moderate	Adverse but Less than Significant[2]
3	High	Low	Insignificant[1]
4	High	Low	Insignificant[1]
5	High	Low	Insignificant[1]
6	High	Low	Insignificant[1]
7	Moderate	Moderate	Adverse but Less than Significant[2]
8	Moderate	Low	Insignificant[1]
9	Low	Low	Insignificant[1]
10	High	Low	Insignificant[1]
11	High	Low	Insignificant[1]
12	High	Low	Insignificant[1]
13	Moderate	Moderate	Adverse but Less than Significant[2]

Notes: (1) Insignificant impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

(2) Adverse but less than significant impacts are perceived as negative but do not exceed environmental thresholds (Class III).

(3) Significant impacts can be mitigated to a level that is not significant or can be avoided altogether with feasible mitigation. Without mitigation, the impact could exceed environmental thresholds (Class II).

(4) Significant impacts cannot be feasibly mitigated (Class I).

4.1.13-4 Would the visual and landform elements be reclaimed in the final closure plans for the landfill?

A. Environmental Consequences

The proposed end-use for the landfill is a vegetated buffer zone for MCAS Miramar, although other uses, such as the existing composting operation, are permitted within this footprint. The Proposed Project makes no changes, although the 1997 Closure Plan has been updated, as required by the LEA and RWQCB, as part of the application for the height increase. The following guidelines are provided in the Closure Plan with regard to plant palette. Planting intensity will be determined by regulatory agencies as suitable for erosion control, and is in excess of the relatively incomplete cover of plants in natural Southern California upland habitat areas. Although slightly unnatural in the density of cover, it is intended that final cover will provide habitat value. The City's standard for five years revegetation monitoring will be far exceeded. Current law requires that closed landfills be monitored for several factors, including integrity of vegetative cover, for 30 years. Because of slow decomposition rates in Southern California landfills, it is possible that this monitoring period could be extended even more.

Plants recommended include those that:

- are native plants; species that are typical of the general location;
- have low short-term and long-term maintenance requirements;
- are self-perpetuating;
- have root systems that will not penetrate beyond the proposed 12 inches of vegetative layer soil;
- integrate aesthetics with the existing open space buffer areas; and,
- are adaptable to poor soils and high compaction (Draft Preliminary Closure Plan and Post-Closure Maintenance Plan, 2005).

Based on these design objectives, a vegetative cover mix comprised of native annual grasses, legumes, and annual wildflowers would be selected as part of the final closure design. However, the Regional Water Quality Control Board and the Integrated Waste Management Board will require the re-submittal of the Closure Plan prior to implementation and may make changes. As anticipated, unless modified by these agencies, reclamation of the surrounding visual elements would be achieved when the vegetation is compatible with the existing vegetation and proposed end-use. No change to the basic design is proposed with the Proposed Project, the only changes to the existing Closure Plan address the drainage changes resulting from the new, taller slopes. Revegetation will be required, even if the existing and proposed Closure Plans are modified to comply with future laws. Revegetation will have to provide an erosion control function, and is likely to be required at a cover density in excess of the cover density found in natural habitats. However, this density will be useful in making the closed facility look vegetated. Additionally, landscaping can be used to break up monotonous landforms, such as the existing and proposed landfill slopes, by creating darker and lighter areas depending on the species used. In the GDP, this effect, together with the relative distance of the viewer, was found to result in no significant impact. For the Proposed Project the distance and vegetation are the same, and would also be considered to result in a less than significant impact, though greater than that of the GDP. The Closure Plan, however, can only provide a general description of the final design. At the time of closure, the City will be required to submit plans to regulatory agencies for review for compliance with all laws that will be applicable at that time. Changes in the design and development details will occur at that time.

B. Analysis of Significance

The final Closure Plan for the landfill calls for the landfill to be revegetated with native annual grasses, legumes, and annual wildflowers as part of the closure plan design. The Proposed Project would result in no change to the existing conditions regarding reclamation, and therefore would result in a less than significant impact on the visual and landform reclamation of the Proposed Project site.

C. Mitigation Measures

Since no significant impact to the visual and landform reclamation of the Proposed Project site is expected, no mitigation measures are proposed.

4.1.14 Water Quality/Hydrology

Criteria for Significance Determination

The City's Storm Water Standards Manual is intended to provide information on how to comply with all of the City's permanent and construction storm water BMP requirements, for private and public development projects in the City of San Diego. In general, adherence to the City's storm water standards is considered to preclude significant water quality impacts (City of San Diego Development Services Department's Significance Determination Thresholds, August 2006). Factors to consider include increasing impermeable surfaces, which can increase peak flow volumes, resulting in erosion, and other factors that can lead to sedimentation and other pollutants that affect water quality.

4.1.14-1 Would the Proposed Project result in an increase in impervious surfaces and associated increased runoff?

A. Environmental Consequences

Roofs and paving in urban developments increase peak runoff flows, but landfill operations do not introduce these types of surfaces. The cover in landfill working areas are a combination of tarpaulins and dirt at the end of each day, and finished sections are covered with dirt. The final surface includes dirt and mulch, and will, at closure, include vegetation. No paving or other impermeable surfaces are installed during landfill operations, although haul roads are treated with water and sometimes special treatments to minimize dust. Thus, no impervious surfaces are proposed as part of this project.

B. Analysis of Significance

There would be no increase in impervious surfaces and associated runoff.

C. Mitigation Measures

No mitigation measures are proposed.

4.1.14-2 Would the Proposed Project result in pollutant discharges to receiving waters? Would the proposal discharge identified pollutants to an already impaired water body? Would the Proposed Project result in discharges into surface or ground water, or in any alteration of surface or ground water quality, including, but not limited to temperature, dissolved oxygen, or turbidity?

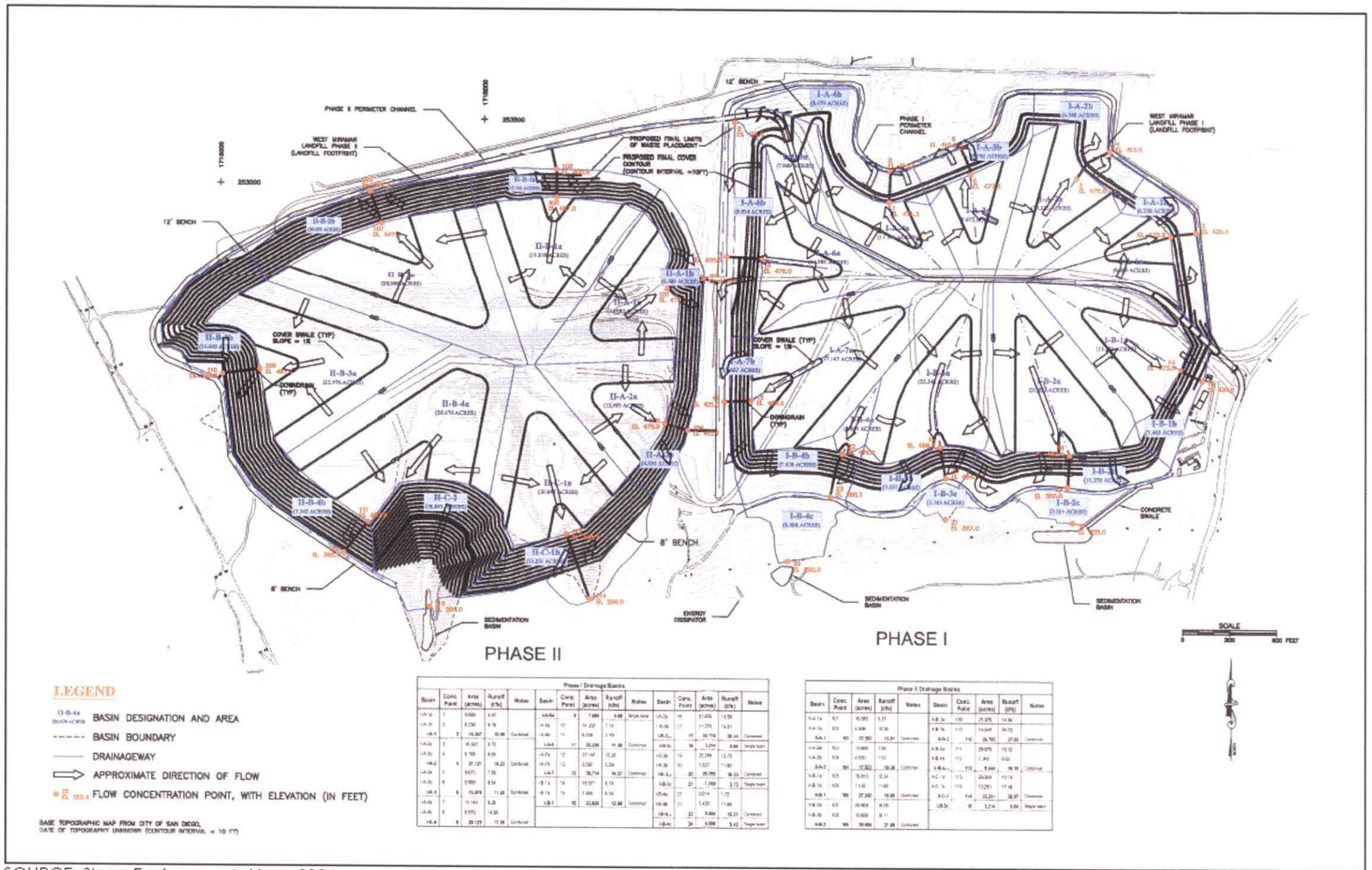
A. Environmental Consequences

The existing drainage control system for WML consists of drainage channels, berms, downdrains, energy dissipaters, and detention basins. Drainage berms along the perimeter of the landfill decks convey surface water to San Clemente Canyon after traveling through the downdrains or earthen drainage channels and then into detention basins, where suspended sediments settle out prior to discharge of the water to San Clemente Creek. Three surface water monitoring locations are located along San Clemente Canyon: one upstream of the landfill discharge point provides background readings, and two downstream monitor water quality changes associated with landfill discharges. These stations are monitored on a quarterly basis and results are reported to the Regional Water Quality Control Board.

Drainage control systems for the Proposed Project would be similar to the existing drainage control system, but would differ slightly in contour, since the Proposed Project would have a higher ultimate elevation. No changes are required to the Phase I sedimentation basin, but the basin for Phase II would require either an enlargement within the existing Phase II footprint to accommodate the slightly increased amount of runoff, or an engineered design, such as inclusion of baffles, to increase the rate at which particles drop out. This design decision will be made in consultation with the RWQCB, which has approval authority over drainage design. Velocity dissipaters would continue to be used at the exit from the sedimentation basins to provide discharge rates that do not produce excessive scour.

Post-closure drainage design is shown in Figure 19. At landfill closure, the final drainage system would be designed, constructed, and maintained as a permanent. system. The existing drainage facilities would be removed during placement of the final cover and re-established as the final drainage facilities after the final cover is in place. As is established in the existing Closure Plan and in the new Closure Plan, storm water on the landfill deck would drain by overland flow to drainage swales that radiate out from the deck interior to down drains at the deck perimeter. In addition, low berms along the perimeter of the deck would prevent local storm water flows from discharging over the side slopes. Instead, the deck berms would redirect flows to the down drain inlets. The down drains would discharge to drainage channels along the landfill perimeter, which, in turn, discharge to sedimentation basins. Storm water runoff from the ridges would collect in the valleys and flow from there outward toward the landfill perimeter. To avoid erosion of the cover by these concentrated flows, shallow swales protected with soil containing gravel- and cobble-sized stone would be located along the valleys. The stony soil used to construct these swales would support the same plant community used to vegetate the rest of the cover. With use of contour plowing on the final cover, a covering of crushed rock on the steeper side slopes, and revegetation of the final cover with native plants, average annual cover soil losses per acre of landfill have been calculated by Shaw at 1.46 tons per acre for Phase I, and 1.85 tons per acre for Phase II. Both of these values are less than the EPA guidance limit of 2.0 tons per acre per year (U.S. EPA, May 1991).

Figure 19 - Hydrologic Analysis for 100-Year 24-Hour Storm



Phase I Drainage Basins

Basin	Conc. Point	Area (acres)	Runoff (cfs)	Notes
I-A-1a	107	10.095	5.37	
I-A-1b	108	6.908	10.36	
I-A-1c	103	22.980	15.91	Continues
I-A-2a	104	13.660	7.99	
I-A-2b	104	4.651	7.51	
I-A-2c	101	17.923	19.26	Continues
I-A-3a	105	10.013	6.24	
I-A-3b	106	7.432	11.66	
I-A-3c	102	27.240	16.88	Continues
I-A-4a	107	26.969	9.09	
I-A-4b	108	10.659	8.11	
I-A-4c	109	19.489	21.98	Continues
I-A-5a	107	31.656	13.59	
I-A-5b	108	11.273	16.21	
I-A-5c	110	29.119	38.44	Continues
I-A-6a	111	29.979	15.10	
I-A-6b	112	1.362	0.53	
I-A-6c	113	5.444	26.19	Continues
I-B-1a	113	20.048	12.16	
I-B-1b	114	13.251	17.48	
I-B-1c	114	33.291	28.97	Continues
I-B-2a	115	25.979	14.36	
I-B-2b	116	19.765	27.66	Continues
I-B-3a	117	9.444	26.19	Continues
I-B-3b	118	13.251	17.48	
I-B-3c	114	33.291	28.97	Continues
I-B-4a	117	2.214	5.84	Single basin

Phase II Drainage Basins

Basin	Conc. Point	Area (acres)	Runoff (cfs)	Notes
II-A-1a	1	9.600	3.43	
II-A-1b	3	6.730	8.76	
II-A-1	3	16.267	10.96	Combined
II-A-2a	2	14.301	8.76	
II-A-2b	4	6.195	8.69	
II-A-2	4	27.121	14.23	Combined
II-A-3a	5	9.673	7.03	
II-A-3b	6	5.905	8.54	
II-A-3	6	15.578	11.28	Combined
II-A-4a	7	11.144	5.28	
II-A-4b	8	8.979	14.03	
II-A-4	8	20.123	17.26	Combined
II-A-5a	9	7.889	3.68	Single basin
II-A-5b	10	14.202	7.14	
II-A-5c	11	6.039	1.75	
II-A-5	11	22.230	11.38	Combined
II-A-7a	12	27.147	12.26	
II-A-7b	13	2.592	1.54	
II-A-7	13	36.744	14.57	Combined
II-B-1a	14	15.571	8.19	
II-B-1b	15	7.885	4.34	
II-B-1	15	23.836	12.38	Combined
II-B-2a	16	31.656	13.59	
II-B-2b	17	11.273	16.21	
II-B-2	17	39.719	38.44	Combined
II-B-3a	18	3.274	6.84	Single basin
II-B-3b	19	1.527	11.80	
II-B-3c	20	29.795	16.23	Combined
II-B-4a	21	1.760	3.73	Single basin
II-B-4b	22	2.014	1.72	
II-B-4c	23	1.430	11.66	
II-B-4	23	5.866	12.21	Combined
II-B-5a	24	5.866	5.42	Single basin

SOURCE: Shaw Environmental Inc., 2006

03/16/07

Miramar Landfill EIS/EIR

Hydrologic Analysis for 100-Year 24-Hour Storm

FIGURE 19

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With implementation of the proposed drainage control features there would be no increase in contamination of landfill surface runoff over existing conditions, and therefore no impacts to surface water quality. Landfill surface runoff would continue to flow into sedimentation basins before being discharged into San Clemente Canyon. San Clemente Canyon is not listed as an impaired water body on the 2002 Clean Water Act Section 303(d) list of impaired water bodies, though it discharges into Mission Bay, which is listed as an impaired water body. Therefore, the Proposed Project would not result in direct discharges to an already impaired water body.

Potential contamination of ground water is precluded by the management of surface runoff, by the existing liner system, continued use and development of a leachate collection system, and ultimate landfill closure and capping. The existing liner exceeds the strength of the federally mandated (RCRA, subtitle D) prescriptive liner design. The WML liner uses 80 millimeter high density polyethylene instead of the required 60 mil. Even with a 60 mil liner, no limits on the height of the landfill are typically imposed, and many landfills are built significantly higher than WML. The existing liner is considered adequate to accept the additional 20 feet of waste.

Groundwater protection and monitoring are proposed for the existing landfill operation, per the requirements of Title 27. Measurements of the depth to ground water are taken on a quarterly basis and ground water samples are taken on a semi-annual basis. The samples are analyzed for a modified list of constituents. Once every five years, samples are analyzed for the entire Title 27 suite of constituents. Groundwater reports are filed with the RWQCB twice a year. The annual report summarizes the years' sampling events and includes trend analysis with historical data. The Proposed Project would not change the landfill footprint, and would make no changes to the existing groundwater protection and monitoring program. The increased landfill height of the Proposed Project would not cause any additional potential contamination of ground water. Therefore, there would be no Project-related impacts to ground water quality.

B. Analysis of Significance

The Proposed Project would continue the existing drainage control features ground water protection measures, modifying them where appropriate to ensure that no changes to the existing conditions would occur. There would be no additional impacts to water quality from the Proposed Project.

C. Mitigation Measures

No additional mitigation measures are proposed, since no significant impacts to water quality have been identified.

4.1.14-3 Would the Proposed Project, when considered in combination with past, current, and future projects in San Clemente Canyon, result in cumulatively significant impacts on the hydrology and water quality of that watershed?

A. Environmental Consequences

Because the runoff from the slope would be controlled in the detention basin, no change in the eventual discharge would occur – the amount of rain hitting the area would be identical, and the increase in velocity caused by the taller slopes would be addressed by the basins. Thus, the Proposed Project would result in no change from the existing, or "No Project," condition, and would therefore result in no direct impact.

B. Analysis of Significance

There would be no change in runoff effects from the current baseline condition; therefore there would be no significant impact.

C. Mitigation Measures

No mitigation measures are proposed, since no significant impacts to water quality have been identified.

4.1.14-4 What short-term and long-term effects would the Proposed Project have on local and regional water quality? What types of Best Management Practices (BMPs) would be incorporated into the Proposed Project to preclude impacts to local and regional water quality?

A. Environmental Consequences

The Proposed Project would include the modification of the existing drainage system to accommodate the runoff associated with the slightly higher slopes of the landfill. Velocity dissipaters would continue to be used at the exit from the sedimentation basin to provide discharge rates that do not produce excessive scour; however, modification to these facilities may be required at any point under the existing conditions and with the Proposed Project by the RWQCB. The RWQCB may require changes to ensure that the sedimentation basins continue to serve their purpose, and there is no increase in runoff rates. Post-closure, the final grades for Phase I and Phase II would be defined by radial ridge-and-valley surfaces on the top decks. Storm water runoff from the ridges would collect in the valleys and flow from there outward toward the landfill perimeter. To avoid erosion of the cover by these concentrated flows, shallow swales protected with soil containing gravel- and cobble-sized stone would be located along the valleys. BMPs would be slightly modified as described above to ensure the Proposed Project would not result in any change in the short- or long-term on regional water quality.

B. Analysis of Significance

The Proposed Project BMPs would result in the Proposed Project having no net effect on regional water quality and therefore would not have a significant impact.

C. Mitigation Measures

No mitigation measures are proposed, since no significant impacts to short-term or long-term water quality have been identified.

4.1.14-5 Would the Proposed Project result in direct or cumulative impacts related to increased flooding and erosion?

A. Environmental Consequences

As described above, runoff controls would be modified to accommodate the slightly increased runoff rates associated with the Proposed Project. The amount of precipitation falling on the area would obviously not change, and this precipitation would encounter the same permeability as in the No Project scenario. However, the slightly higher slopes would increase the velocity of this runoff during storm events. As described above, the sedimentation basins would be modified to ensure that there is no increase in offsite sediment contamination, and velocity dissipaters would continue to ensure that velocities would not produce scour. As a result, the Proposed Project would result in no change in the flooding or erosion potential as compared to the existing landfill.

B. Analysis of Significance

The Proposed Project would result in no change; therefore, it would have no direct or cumulative flooding or erosion impacts.

C. Mitigation Measures

No mitigation measures are proposed, since no significant impacts related to flooding and erosion have been identified.

4.1.15 Energy Consumption and Conservation

Criteria for Significance Determination

The same City department that operates the landfill also operates the City's sustainability and energy conservation programs. Energy conservation and energy generation are related issues, just as waste generation, waste reduction, and waste disposal are related issues. Planning done by the City shows that given the limited energy generation potential of the region and the impacts associated with energy generation, energy conservation is essential. On a related matter, failure to provide local power results in the need for impact-intensive long distance transmission lines, and failure to provide adequate percentages of green power results in unnecessary air emissions.

In evaluating energy impacts associated with discretionary projects, ESD looks at whether or not standard energy conservation programs, such as LEED (Leadership in Energy and Environmental Design) or ISO 14001 have been instituted. In evaluating energy generation, the Department considers whether green alternatives have been considered.

4.1.15-1 *Would the Proposed Project require the use of excessive amounts of fuel or energy (e.g., natural gas) or power?*

A. Environmental Consequences

The current energy consumption associated with landfill operations would not change. Energy use of the portable ancillary structures is reduced via the EMS program and is far less that the amount of green energy produced by collection of landfill gas.

B. Analysis of Significance

Because the landfill results in a net generation of energy and the proposed height increase only increases this potential, only beneficial impacts are associated with the Proposed Project.

C. Mitigation Measures

No mitigation measures are proposed, since no significant impacts have been identified.

4.2 Growth Inducement

Both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require that environmental documents discuss whether a project would induce direct or indirect growth. In particular, both NEPA and CEQA guidance indicate that EISs and EIRs should address the ways in which a project could foster economic development or population growth, or the construction of additional housing, in the surrounding environment. CEQA Guidelines state that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. A growth inducing effect, if it occurred, would create significant new demands for supporting services and activities, which in turn would produce growth in excess of regional projections by SANDAG. Certain types of land uses, such as roads, can induce changes in adjacent land uses by their presence.

4.2-1 Would the Proposed Project increase the tonnage that can be accepted on a daily or annual basis at the Miramar Landfill and thereby indirectly foster increased growth?

The Proposed Project is to increase the height of the facility and would not change the operation. The Solid Waste Facility Permit will be modified to allow the greater height, but not to increase daily traffic or tonnages. The existing permit also has an annual limit on tonnage; however, consistent with how other permits for other landfills have been handled, this annual limit will be eliminated. It is the daily traffic that relates to the state minimum standards that the LEA monitors and regulates. It is the role of the LEA to prevent impacts associated with the operation that could result from too many tons/trips passing through the fee booth and/or tipping at the face. Therefore, although older permits did contain an annual limit, newer permits, including a permit issued in 2006 for the privately-operated Sycamore Landfill, located within the City of San Diego, do not.

The County Siting Element projects that even with increased diversion through source reduction, recycling, and composting, given the projected growth of the region, disposal rates would increase. The Proposed Project would not increase its daily acceptance rates, and therefore would not accommodate projected growth, and would not induce additional growth. Landfills in the region are currently accepting waste at or near the rates permitted in their SWFPs. The Proposed Project would do nothing to alleviate the existing shortfall. Providing sufficient, environmentally-oriented solid waste management services, including disposal, will continue to be a challenge, but it will not constrain growth in the region. That regional landfill capacity is not included in SANDAG population models was confirmed by a SANDAG population modeler (pers. comm. Terry Beckhelm, April 8, 2005).

4.3 Effects Found Not to be Significant

The City of San Diego's Environmental Impact Report Guidelines allow a lesser discussion of issue areas for which there will not be a significant impact. To streamline the analysis and focus on the most important issues, this approach was taken. No significant impacts were identified in the course of this analysis, but some issue areas required a greater degree of focus than others.

For air quality, since the operation at the facility would continue for approximately four more years, and since the total amount of landfill gas generated would be increased, a full analysis was provided to ensure that potential impacts were adequately considered. The results of this analysis found that there would be no net annual increase in emissions from the site as a result of the Proposed Project. In the case of biological resources, despite the fact that the operation would disturb no new soil, a careful look was taken at the current resources on and near the site. Existing slopes proposed to be retained resulted in contracting the footprint by approximately eight acres. This helped avoid disturbances to areas that have begun to reestablish native vegetation.

In considering geological safety, this issue is fully addressed be regulatory agencies that inspect the landfill design. The engineering techniques to be used are detailed in documents that have been included in this environmental document by reference. Therefore a second technical appendix on this topic was not created. Similarly, the LEA requires detailed submittals on the design and operation of the facility in order to protect health and safety, and these submittals have been incorporated by reference, therefore no additional appendix on this topic was included.

In the case of cultural resources and paleontology, because the Proposed Project would occur strictly within the footprint of the existing landfill, no additional maps or surveys of resources that may be present in the surrounding area were provided. With regard to mineral resources, the Proposed Project has complied with the intent of this analysis by preceding landfilling operations with aggregate extraction.

The Proposed Project site is well removed from receptors, because it is surrounded by freeways and overflown by military jet aircraft; therefore a previously done noise analysis indicating that the existing operations had no significant impact was referenced in this analysis. The effect of the greater height was considered in this analysis. This effect would be very minimal, and would be compensated for by the increased separation from noise receptors, as explained in the analysis.

Because the Proposed Project includes not changing the existing traffic limits, a draft traffic study that was prepared for another project was used to describe the area traffic. This information was supplemented with traffic trends at the landfill, and internal circulation. With regard to public services and utilities, because the Proposed Project would require no new

services, and in fact provides services including solid waste and energy services, a brief analysis was provided.

With regard to potential visual impacts, because the Proposed Project would make the existing landfill a maximum of 20 feet higher, a more in depth analysis was provided. The possibility that this increase in height could result in a significant impact was carefully considered. If found, such a potential impact could be compared with the relative benefit of approximately four years of landfill life. However, visual simulations showed the height increase to closely mimic what is currently permitted. The increase in height can be detected in the photographic simulations, but was too small for a three dimensional model, because a wafer thin enough could not be generated. The four additional years of operation were also considered in evaluating the severity of the impact. Given the existing conditions, the nature of and distance to receptors, and the relatively small change proposed by the Project, no significant impact was identified.

Water quality is always a major concern at landfills; however monitoring of the existing facility has been provided over the years, and no problems have been identified. The Proposed Project would continue to conform to regulations, and would ensure no net change in runoff or sedimentation rates. Therefore the technical studies that are incorporated by reference were considered adequate, and an additional technical report was not provided.

This landfill is equipped with a gas collection system, and an energy generation facility is provided at the Miramar Landfill. As a net generator of green power, no impacts to energy conservation were anticipated.

4.4 Alternatives

4.4.1 No Project

The Proposed Project is for vertical height increases of up to 20 feet for phases I and II of WML. This would allow a maximum height limit of 485 feet amsl for both phases I and II. Under the No Project Alternative, development of phases I and II would be completed under the existing lease agreement with the Department of Navy, and under existing permits with regulatory agencies.

Under the No Project Alternative, if the landfill were to continue to operate at its current rate (approximately 3,500 tons per day), the landfill would reach its maximum height by 2012. This would leave the County of San Diego with one less landfill, which would result in higher volumes of waste disposal at other in-county and, potentially, out-of-county landfills.

Impacts associated with the No Project Alternative would include existing air emissions from WML, which include more than 100 pounds per day of particulate matter, NO_x, SO_2, reactive organic gases, and more than 500 pounds per day of CO_2, hydrogen sulfide (H_2S), methane (CH_4), and particulates. These existing conditions have been described in previous environmental analyses as being significant, even after mitigation measures were implemented.

Similarly, previous environmental documents addressing the existing landfill's visual impacts found significant impacts. Significant landform alteration impacts were associated with WML due to the scale of filling proposed, even though the proposed revegetation in the Closure Plan would reduce visual contrast and help to blend the native landforms with the modified landforms.

4.4.2 Other Alternatives

Reduced Expansion (10-Foot Height Increase)

Reducing the height increase even farther, down to 10 feet, would in fact reduce the impacts associated with the one issue area in which the Proposed Project has a net increase in effect as compared with the No Project Alternative. The reduction in visual scale would be half that of the Proposed Project. The surrounding landscape as described in the cumulative impact analysis would not change. The nature of the change to the landscape caused by this alternative would be the same as the Proposed Project; i.e., an adverse, but less than significant, visual impact. However, the incremental effect of a ten-foot increase, as compared to a 20-foot increase, would be less than the Proposed Project.

The ten foot increase alternative would provide less capacity. This alternative would require reengineering of cells that are normally engineered in 20 lifts. The Proposed Project does

include a minor modification to this technique, and includes an area of only 15 foot lift. Further reduction would pose problems including more cost per ton of waste disposed, and less efficient waste placement. It is possible that, as a result of difficulties associated with this modification, that somewhat less than the expected two or so years of additional capacity could be achieved. Even if a full two years of additional capacity could be achieved, it would sacrifice two years of capacity for a marginal reduction in visual impact that is not considered significant in the Proposed Project.

4.5 Comparison of Environmental Consequences

The following matrix provides a comparison of the direct, indirect, and cumulative impacts and mitigation for each alternative.

TABLE 4.5-1
Comparison of Project Alternatives

	No Project	Proposed Project	Reduced Expansion
Land Use			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Air Quality[1]			
Direct Impacts	None	None	None
Indirect Impacts	Closure would result in waste going to a more distant location with possible increases in vehicular emissions.	Project would delay the need for longer trip distances.	Project would have a lesser delay in the need for longer trip distances.
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Biological Resources[2]			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Geology[3]			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Health and Safety[4]			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Cultural Resources			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Paleontological Resources			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None

TABLE 4.5-1
Comparison of Project Alternatives (cont'd)

	No Project	Proposed Project	Reduced Expansion
Mineral Resources[5]			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Noise			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Traffic			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None[6]	None	None
Mitigation Measures	None	None	None
Public Services and Facilities			
Direct Impacts	None	None	None
Indirect Impacts	Closure would result in the waste going to an alternative location.	Would delay impacts associated with alternative destination.	Would have a lesser delay of impacts associated with alternative destination.
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Public Utilities			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Landform Alteration / Visual Quality[7]			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None

TABLE 4.5-1
Comparison of Project Alternatives (cont'd)

	No Project	Proposed Project	Reduced Expansion
Water Quality / Hydrology[8]			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None
Energy Consumption and Conservation			
Direct Impacts	None	None	None
Indirect Impacts	None	None	None
Cumulative Impacts	None	None	None
Mitigation Measures	None	None	None

Notes: (1) Prior environmental documents found air emissions from the landfill to be significant, even with mitigation. Mitigation required included watering, use of soil stabilizers, exhaust emission controls. These measures are also required and application of them is enforced by regulatory agencies, and they are included in the project design of the Proposed Project, and the Reduced Expansion Project. The measures ensure that there is no net difference in emissions between the alternatives.

(2) Prior mitigation has been provided, and no alternative would increase the existing footprint of the development.

(3) All alternatives assume proper engineering, as required by regulatory agencies.

(4) All alternatives assume operation according to Solid Waste Facility Permit conditions.

(5) Impacts that were not identified, but may have been associated with the original landfill have been avoided by a separate project exploiting the resources prior to filling operations.

(6) At the time the landfill originally opened, State Route 52 had not been constructed. The trips were never considered to have a cumulative significant impact. Kearny Mesa has now developed to the point where cumulatively significant impacts are always an issue, but for the No Project, the Proposed Project, and the Reduced Expansion Project there is no change, and no cumulatively significant impact.

(7) Previous analysis found the WML to have visual impacts that would be mitigated upon implementation of the Closure Plan. The Proposed Project and Reduced Expansion Alternatives include implementation of the Closure Plan, which is required and enforced by regulatory agencies, in the project description.

(8) All alternatives assume operation according to all required permit conditions, with no difference in impacts between the alternatives.

4.6 Cumulative Impacts

Both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require the analysis of cumulative impacts. Cumulative impacts refer to two or more individual effects that, when considered together, are considerable, or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects (CEQA Guidelines, Section 15355). Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time. Cumulative impacts must be discussed when they are significant. The level of detail in the discussion of cumulative impacts should reflect the severity of the impacts, and their likelihood of occurrence, but the discussion need not provide as much detail as for the direct effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness.

CEQA (CEQA Guidelines, Section 15130 (b)) allows cumulative impacts to be analyzed on either of two ways 1) a summary of projections contained in an adopted general plan or related planning document, or 2) a list of past, present and probable future projects producing related or cumulative impacts. This document has been prepared using both approaches.

The Proposed Project site and the adjacent areas of San Clemente Canyon are located within MCAS Miramar. As such, any approved or proposed projects in this area would be included in the 1999 MCAS Miramar Master Plan, and the Integrated Natural Resources Management Plan for MCAS Miramar. According to these documents, projects that could result in cumulative impacts with the Proposed Project are not anticipated.

An additional planning document that should be considered is the General Development Plan GDP prepared by the City for the Miramar Landfill. Furthermore, two other proposals, projects that are not included in any of the Miramar planning documents, which should be considered include the proposed C&D facility and the proposed expansion of the privately-owned and operated Sycamore Landfill.

In total, the most likely projects to contribute to cumulatively significant impacts include: 1) implementation of additional GDP components, 2) implementation of the proposed expansion of the Sycamore Landfill, and 3) implementation of the construction and demolition debris recycling facility.

The GDP described five “existing” facilities: the WML, Field Operations Office, Aggregate Processing, and Hazardous Waste Inspection Facility. Of these, aggregate processing operations have been concluded. In addition, the GDP addressed the relocation of five facilities, the Recycling Center, Greenery, Fee Booth, Vehicle Maintenance, and Fuel Pipeline. Thirteen new facilities were proposed:

Biosolids Center (completed)
Household Hazardous Waste Transfer Station (completed)
Landfill Siltation Basin (completed)
Earth Mounding (proposal dropped due to less excess soil than anticipated)
Access Road (completed)
Pipelines and Utilities (completed)
Nursery (completed)
Materials Recovery Facility (plan in development stage)
Environmental Complex (no current plans)
Cogeneration Plant (completed)
Public Transfer Station (not currently proposed)
Paper Pulp Processing (not currently proposed)

The facility proposed in the Miramar Landfill GDP that is most likely to be developed in the foreseeable future and result in cumulative impacts is the Materials Recovery Facility (MRF). A MRF can vary in design to be more of a transfer station, processing a mixed municipal waste stream (dirty MRF), to more of a recycling facility processing clean loads of source-separated recyclable materials (clean MRF), and even to change between these types of facilities, as the need arises. A MRF can focus on construction debris, but in the case of the facilities envisioned at Miramar, a new place and new concept for a C&D facility is being developed, as discussed below. Although this MRF has not been submitted for any early review, a project manager has been assigned to evaluate the project. Presently, the concept for this project is a small recycling facility that would transition into a large capacity MRF upon closure of Miramar Landfill. As currently envisioned, however, it would not bring in any additional trips until closure of the landfill, at which time the traffic would be redirected from the landfill face to the MRF. Thus the impacts associated with this facility would be largely sequential, rather than cumulative.

MCAS Miramar staff has discussed with the City the possibility of using part of the MRF site for military purposes. The City specifically included a separate payment for this site for development of the MRF; however, specific arrangements could be possible that would allow for joint use of the site. The military purpose would be the construction of fuel storage tanks to provide convenient access to jet fuel for military aircraft. Kinder Morgan would be the private sector partner developing the tanks. This project would have different impacts than the MRF, but mitigation would likely be similar, for example construction of a visual berm along State Route 52.

An additional related facility that should be considered in this analysis is the existing privately-operated Sycamore Landfill. The proposed Sycamore Landfill expansion is being addressed by the City of San Diego in an EIR that is still in preparation. Anticipated significant environmental impacts of that project include impacts to air quality, biological resources, landform alteration/visual quality, noise, odor, paleontological resources, soils, and traffic/circulation, with potentially unmitigable air quality, odor, landform alteration/visual, and traffic impacts.

A final facility that should be considered is the proposed C&D recycling facility at the Miramar Landfill. A project has been submitted to the City's Development Services Department for consideration. However, the project definition has not been clearly identified. At this point, a traffic study has not been submitted to accompany the project. One possible approach to traffic would be to reduce the trips going to the landfill allowed in the SWFP by an equal amount to what would be allowed at the C&D facility. This approach could result in impacts associated with re-direction of waste from Miramar to more distant disposal facilities.

Issue – What are the cumulative impacts of the Proposed Project in conjunction with other approved or proposed projects on the base or within the immediate area?

4.6.1 Land Use

The C&D facility is a solid waste facility located within the landfill footprint and is not expected to result in any land use impacts. The MRF has already been considered in the GDP and found to be a consistent land use. Any inconsistencies with land use associated with the Sycamore Landfill would be a localized issue that would not have a cumulative effect with the Proposed Project. The Proposed Project does not change the existing, consistent land use. Therefore the Proposed Project would not combine with any other potential future projects to result in cumulatively significant land use impacts.

4.6.2 Air Quality

As described in EIS/EIR Sections 4.2.5 and 5.1.1.4, all projected additional LFG resulting from the proposed additional MSW associated with the Proposed Project would be collected in the improved gas collection system, and sent to either the already-permitted cogeneration facilities or the flares. As described in Section 5.1.1.4, as a result of the Proposed Project the projected amount of gas to be burned in those facilities would total 1,360+219+4,345 scfm, or 5,924 scfm, an amount that is less than the 6,000 scfm limits of existing Permits to Operate # 96387A and 96387B. Since no modifications to either the permit or the facilities themselves are proposed or required, there would be no substantive change to LFG combustion or its emission products over the existing permit approvals. As discussed in Section 5.1.1.4, the Proposed Project would result in no change in the number of vehicular trips to the landfill, and thus no change to vehicular emissions associated with the landfill. The Proposed Project would result in no net increase in emissions, and therefore there would be no significant cumulative air quality impacts associated with the Proposed Project. Although all three of the foreseeable projects considered for the cumulative impact analysis are likely to have air quality impacts, because the Proposed Project would result in no net increase in emissions levels, it would have no cumulative air quality impacts when considered with the effects associated with other foreseeable projects.

4.6.3 Biological Resources

The Proposed Project would be located completely within the footprint of the existing WML, and would result in no loss of additional habitat. There would be no direct impact to biological resources associated with the Proposed Project. Thus the Proposed Project would not contribute to any cumulatively significant losses of habitat in the region. Biological impacts associated with development of a MRF were identified and mitigated in the GDP EIS/EIR. Biological impacts associated with the C&D facility would also occur within the footprint of the existing WML, and therefore would not contribute to any cumulatively significant loss of habitat in the region. The proposed expansion of the Sycamore Landfill would result in biological impacts, however, the Proposed Project would result in no impacts, and therefore would not contribute to this impact.

4.6.4 Geology

Geological impacts of the projects are site-specific, and are mitigated through proper engineering. Of the planned projects for the area, the greatest geological challenges will be faced by the C&D facility, which is intended to be completely located within the footprint of WML. The landfill provides an unstable substrate that will be expected to subside as decomposition of the underlying material progresses. For this reason, no permanent structures or inflexible foundations will be proposed, and the facility will be designed to withstand any type of earthquake or subsidence. The MRF is planned to be located partially on stable substrate, and partially over old landfilled areas of South Miramar. Any structure that is part of the final design of this facility will be located on the stable substrate, although parking, storage, and other uses are likely to be proposed over old landfill. These and other projects could result in cumulative effects if heavy rains, seismic events, or other occurrences cause failure of multiple structures, resulting in increased demand on support services. However, not only has WML been designed to withstand such events, in an emergency situation it could continue to operate under a modified structure, and could support emergency services, for example by accepting debris caused by an earthquake. Thus, no cumulative geologic impacts would be associated with the Proposed Project.

4.6.5 Health and Safety

Health and safety issues are also typically addressed and mitigated on an individual basis. The Proposed Project proposes no modifications to the existing operations, which are currently conducted not only under law and inspected by various regulatory agencies, but also under a voluntary Environmental Management System, intended to provide standards above and beyond existing laws. Because the Proposed Project proposes no change in operations, it would have no health and safety impact, and would not contribute cumulatively to any foreseeable cumulative impacts. The planned MRF, C&D facility would all also be required to comply with health and safety regulations. These types of facilities can be operated without impacts, and can provide health and safety benefits in the event of an emergency, for example by providing debris processing and disposal. Thus none of them are expected to contribute to cumulatively significant health and safety impacts.

4.6.6 Cultural Resources

The Proposed Project would stay completely within the footprint of the existing landfill and would disturb no historical or archeological resources, and therefore would not contribute to any regionally significant loss of these resources. Similarly, the C&D facility would be collocated on the landfill and would not result in any significant loss of resources. This issue area was addressed at a project-specific level for the MRF, and no significant impacts were identified, and no contribution to regionally-significant cumulative losses of resources. Thus the Proposed Project would not result in any cumulatively significant impacts to these resources.

4.6.7 Paleontological Resources

The Proposed Project would stay completely within the footprint of the existing landfill and would disturb no paleontological resources, and therefore would not contribute to any regionally significant loss of these resources. Similarly, the C&D facility would be collocated on the landfill and would not result in any significant loss of resources. This issue area was addressed at a project-specific level for the MRF, and no significant impacts were identified, and no contribution to regionally-significant cumulative losses of resources. Thus the Proposed Project would not result in any cumulatively significant impacts to these resources.

4.6.8 Mineral Resources

Landfill operations previously exploited resources underneath the landfill, therefore the Proposed Project would not contribute to any potentially cumulatively significant loss of such resources. The C&D project would be co-located at WML, and therefore would also have no impacts on mineral resources. The MRF would only be partially located over landfill, so excavation opportunities may need to be addressed for portions of the facility over natural substrate to avoid impact in this area. The Sycamore Landfill is currently providing aggregate extraction operations similar to those provided at WML. In combination, the reasonably foreseeable projects have adequately exploited underlying minerals and would not result in cumulatively significant impacts.

4.6.9 Noise

The combination of high ambient noise levels and great distance between the WML and potential receptors results in no individual noise impacts resulting from ongoing landfill operations as measured from the property boundary. The proposed C&D facility may produce noise that can heard at the property boundary, depending on the type of equipment proposed; however the C&D facility would be co-located with WML, which is at a great distance from the nearest receptors, and separated from them by a busy highway, and is not expected to contribute to any audible difference in the ambient noise levels. The MRF would be located closer to receptors. If not enclosed, this facility could generate noise that could be audible; however, the proposed visual berms would not only reduce visual impacts, they would also reduce noise impacts to the same, or less than, current conditions. Therefore the Proposed Project would not contribute to any cumulatively significant noise impacts.

4.6.10 Traffic

Proposed uses in the GDP, such as the MRF, plus the proposed C&D Recycling facility could produce additional traffic that would further deteriorate already poor levels of service. Trips per day associated with the MRF were only analyzed in the GDP at a programmatic level. It is expected that subsequent environmental review for project-specific impacts will be required when that project is proposed. Likewise, the traffic impacts associated with the C&D facility will need to be evaluated, unless a way can be found to keep the net traffic levels constant. Although a C&D Recycling facility project has been submitted for review, it is unclear what the trips per day will be. Modifying the Solid Waste Facility Permit for the WML to REDUCE the allowable throughput of waste is one option that has been considered; however, this alternative could have other impacts affecting regional traffic. Because a draft environmental document for the C&D facility has not been released, it is not known how traffic will be addressed for this facility. The MRF is likely to be designed to come online as the Miramar Landfill reaches closure, thus resulting in sequential, rather than cumulative trips.

Sycamore Landfill is proposing a large increase in throughput that could have significant effects on local streets, especially Mast Boulevard. The Miramar Landfill has no impacts on Mast Boulevard traffic, and therefore results in no cumulative effect. However, the Sycamore Landfill's large proposed throughput rate could impact State Route 52 as far west as the Miramar Landfill, and could have an impact on access to the Miramar Landfill. The Proposed Project that is the subject of this analysis would not modify traffic conditions. Throughput fluctuates seasonally and annually, as the waste generation rate varies, however growth in the waste generation rate is expected to be accommodated by proposed expansions of other, private facilities. The SWFP is not being modified to allow increased trips into the facility, and no change is expected as a result of the Proposed Project. Thus the Proposed Project would have no direct or indirect impact on traffic in the area. Therefore it would not contribute to any cumulative impact.

4.6.11 Public Services and Facilities

In addition to bringing in more residents with increased demands on services such as parks and schools, some projects also could result in cumulatively significant demands on emergency services. The facility currently can augment emergency services in the event of a disaster, and no change to this service is proposed. Other existing materials recovery facilities and recycling operations often provide their own emergency equipment and personnel, because specialized equipment, such as bulldozers and self-contained breathing apparatus may be required. Typically, therefore, the types of facilities that may be developed in the future at the Miramar Landfill, such as the C&D facility and the MRF, do not result in increased demands on emergency services. Road maintenance in the Mast Boulevard area, which is proposed for very large traffic volumes and heavy trucks will also be addressed. However, the Miramar Landfill is in the centroid of the City and poses no challenge to emergency service providers. The Miramar Landfill also has no effect at all on Mast Boulevard and does not contribute to this impact. Thus, no cumulative public service impacts would be associated with the Proposed Project.

4.6.12 Public Utilities

The existing landfill is served by reclaimed water, and no change to this service is proposed. The types of facilities that may be developed in the future at the Miramar Landfill, such as the C&D facility and the MRF, would be expected to meet water and energy demands with existing infrastructure, and would be expected to continue the existing emphasis on water and energy conservation, and use of reclaimed water. Thus, no cumulative public utility impacts would be associated with the Proposed Project.

4.6.13 Landform Alteration/Visual Quality

The only past, present or foreseeable future landform changes visible from outside MCAS Miramar include landfilling areas in WML, Phase II (maximum permitted elevation 465 feet amsl), and Phase I (maximum elevation 470 feet amsl); North Miramar Landfill (approximate maximum elevation 465 feet amsl); and South Miramar Landfill (approximate maximum elevation 415 feet amsl). Other past, present or future ancillary facilities that are completed, or that are included in the Miramar GDP, are all buildings or structures of two stories or less, visually comparable to the existing industrial buildings and facilities located south of SR52.

Some of the Phase I facilities described in the GDP, notably the Household Hazardous Waste collection facility, have already been developed. The Materials Recovery Facility has not yet been developed and may be developed in the future, but as anticipated in the GDP, this facility will be adequately screened from public view. Since the current view is of the biosolids facility, which was developed subsequent to the EIS/EIR for the GDP, adequate screening of the area would reduce an existing impact and would not contribute to any cumulatively significant deterioration in the viewshed quality. Most GDP Phase II projects, such as the paper pulping plant, are no longer proposed.

The potential Kinder Morgan fuel storage tanks would be located at the same site as the MRF that was analyzed in the GDP. Whether the MRF is developed, or the tanks, or both, these facilities will not be cumulative so much as they will partially or completely block views to landfill operations, obscuring the current line of site from the freeway.

No substantial changes to MCAS Miramar facilities or landforms are planned or anticipated, based on review of the 1999 MCAS Miramar Master Plan (1999) and the Integrated Natural Resources Management Plan, MCAS Miramar (2000).

URS personnel compared the current County of San Diego General Plan 2020 to existing land use patterns outside MCAS Miramar but within four miles of the identified KOP locations. That distance falls within foreground (0 to one-half mile) and middleground (one-half mile to four miles). The area is virtually completely built out. Any future development would require removal of similar land uses already present.

Since little additional land development or landform alteration is anticipated under either Miramar or City of San Diego plans for the Proposed Project area, no substantive development is anticipated that would result in cumulative visual impacts to the identified KOPs, although the potential Materials Recovery Facility and Kinder Morgan storage tanks, and visual berming associated with these facilities, would be located in the foreground.. While direct visual impacts have been identified as adverse, but less than significant, these impacts would not combine with visual impacts of other development to result in cumulative visual impacts. Thus, potential cumulative visual impacts of the Proposed Project would be less than significant.

4.6.14 Water Quality/Hydrology

As a result of the proposed drainage control features, any increase in velocity of runoff resulting from the increased slope walls within the existing footprint would be captured in sedimentation basins so that the sediment load would be controlled. No changes to run-off exit velocity or quality would occur. No changes in ground water quality would occur. Because there would be no change, there would be no direct and therefore no cumulatively significant impact.

The C&D facility and MRF would be subject to stormwater controls, and would be expected to mitigate any impacts to below a level of significance. The development of the Kearny Mesa area has increased peak flow velocities, thus increasing erosion in San Clemente Canyon, however the Proposed Project, the C&D facility and the MRF would be expected to prevent any associated impacts to assure no change to peak flows.

4.6.15 Energy

Gas from the landfill produces more energy than is consumed by the Proposed Project. Because of its central location, this facility is superior to any alternative in terms of reducing fossil fuel consumption associated with MSW deliveries. The MRF and the C&D facility would be expected to be net consumers of energy, but are likely to provide energy conservation measures. The Sycamore Landfill gas is used to generate electricity under an arrangement similar to that for the Miramar Landfill, thus the proposed Sycamore Landfill expansion and the Proposed Project do not contribute to any regionally significant shortfalls in local energy generation.

4.7 Economic and Social Effects

Economic and social factors are listed in the CEQ NEPA Regulations (40 CFR 1508.08(b)) as among the effects that should be analyzed when preparing an EIS. In addition, Executive Order 12898 requires that adverse effects to minorities or people with limited income be evaluated (environmental justice). To determine whether a proposed action is likely to have disproportionately high and adverse human health or environmental effects on low-income populations or minority populations, the potential impact area must be identified. A three-mile radius around the landfill was studied. The potential impact area is the area that may be affected in some way by the Proposed Project; for example, the potential impact area near a landfill could have air quality or aesthetic impacts. All or portions of 44 census tracts lie within the three-mile radius of the Proposed Project site; however, due to existing topography and the fact that the site is not visible from most of these census tracts, all but 14 of the census tracts were eliminated from further analysis. The demographics of the 14 census tracts, lying within the communities of University City, Mira Mesa, Tierrasanta, Kearny Mesa, and Clairemont, were examined to determine the existing socioeconomics of the potential impact area.

To analyze the social and economic effects for the potential impact area, the demographics for each census tract have been compared to the countywide demographics to determine if a minority or low-income group may be disproportionately affected by the Proposed Project. The countywide demographics, as well as the demographics of the 14 census tracts, are provided in Table 4.7-1. According to Executive Order 12898, individuals in the following population groups are considered minorities: American Indian, Asian or Pacific Islander, Black, or Hispanic.

All census tracts evaluated, with the exception of 94 (MCAS Miramar) and 95.04 (MCAS Miramar) have a larger Asian population than the County as a whole. This high minority concentration can be attributed to the proximity to the University of California, San Diego (UCSD). UCSD, located approximately five miles northwest of the Proposed Project site, has a high percentage of Asian students (39 percent in 2006) (UCSD Student Profile, Fall 2006). A large percentage of UCSD students live in the communities near the university, including communities that surround the Proposed Project site. This is also the reason for the high percentage of low-income (below poverty) persons in three of the University City census tracts: 83.75, 83.4, and 83.44 (Personal Communication, E. Schaffer, 2005). Non-family households under the age of 25 account for most of the "poverty" cases in these three census tracts.

In addition, census tracts 83.6 (Mira Mesa) and 94.0 (MCAS Miramar) have larger Black populations than the County as a whole. This can be attributed to the close proximity to the military base, which has a particularly high percentage of Black personnel (13.26% versus the county-wide average of 5.34%). Census tract 83.6 is located immediately north of MCAS Miramar and this census tract contains housing for military families.

Overall, the Proposed Project would benefit human health for the surrounding communities and the entire County because waste disposal can still occur near the center of the Countywide population. This would result in less air pollution because trash trucks would not have to travel to more distant landfills to dispose of solid waste. For environmental justice to be achieved, minority and/low-income populations must not be adversely affected by the Proposed Project. As concluded in this EIS/EIR, the Proposed Project would not result in any significant direct or indirect adverse effects to the environment. Therefore, the Proposed Project would not result in adverse social or economic effects to minority or low-income populations.

TABLE 4.7-1
Countywide and Project Area Demographics, 2006* Estimates

		Tract					
	Countywide	**83.39**	**83.4**	**83.44**	**83.45**	**83.5**	**83.6**
Hispanic	29.07%	9.27%	8.19%	8.59%	5.56%	9.38%	16.69%
White	51.42%	54.33%	66.71%	74.51%	78.67%	29.91%	34.53%
Black	5.34%	1.32%	2.08%	1.83%	0.73%	3.69%	6.10%
American Indian	0.52%	0.06%	0.34%	0.15%	0.15%	0.12%	0.22%
Asian	9.74%	29.96%	19.02%	11.67%	12.22%	50.40%	36.77%
Hawaiian	0.43%	0.12%	0.19%	0.23%	0.21%	0.51%	0.43%
Other	0.26%	0.06%	0.27%	0.17%	0.27%	0.43%	0.56%
2+ races (mixed)	3.23%	4.87%	3.20%	2.85%	2.17%	5.56%	4.69%
% Below Poverty	11.18%	33.81%	12.49%	14.93%	8.22%	5.28%	6.91%

	Tract							
	85.05	**85.06**	**85.07**	**85.11**	**94.00**	**95.02**	**95.04**	**95.05**
Hispanic	19.84%	17.48%	22.57%	20.20%	18.72%	9.38%	7.67%	8.14%
White	58.87%	57.88%	50.34%	59.49%	60.66%	71.25%	78.48%	65.69%
Black	1.83%	2.08%	3.97%	4.25%	13.26%	3.86%	2.45%	3.27%
American Indian	0.56%	0.46%	0.22%	1.27%	0.63%	0.22%	0.17%	0.25%
Asian	14.60%	18.16%	15.42%	10.78%	4.91%	11.27%	8.17%	17.67%
Hawaiian	0.73%	0.43%	1.02%	1.22%	0.19%	0.74%	0.09%	0.47%
Other	0.17%	0.20%	0.33%	0.25%	0.09%	0.14%	0.28%	0.21%
2+ races (mixed)	3.41%	3.32%	6.12%	2.53%	1.53%	3.15%	2.68%	4.30%
% Below Poverty	8.40%	7.37%	11.28%	4.35%	1.82%	3.09%	1.85%	1.93%

Note: Most recent poverty data are from 2000 Census.
Source: SANDAG Data Warehouse, 2007 and BRG Consulting, Inc., 2007.

4.8 Irreversible and Irretrievable Changes and Commitment of Resources

Implementation of the Proposed Project would be essentially irreversible and irretrievable. Once the vertical expansion begins, it is unlikely that the landfill would be removed at the end of the Proposed Project life span. The Proposed Project would add additional material over the liner, including geotextile material and specific soil layers. The waste materials themselves are not intended to be retrieved, nor are any the materials used as sacrificial cover.

Construction and operation of the landfill expansion would involve the consumption of energy derived from nonrenewable resources. The vertical expansion would result in the landfill operating for approximately four more years, five to consider possible "worst case," which would also extend the number of years the trucks and heavy equipment used to operate the facility would be in use. However, the energy produced by the long-term generation of methane gas from the additional landfill capacity would serve to offset fossil fuels used to operate the landfill equipment. The degree of energy production offset would be greater for the Proposed Project than that of any offsite alternative, due to increased energy use required to transport the MSW to distant landfill sites, and to develop new sites.

Other technologies could be more efficient than the WML gas utilization program; however, given the longer planning horizon required for development of facilities that make better use of the energy in waste, no such facility would be online during the approximately four years of additional life the Proposed Project would provide.

Implementation of the Proposed Project would also cause less than significant irreversible and irretrievable changes to the visual character of the area. The landform created by the proposed expansion would be expected to remain in perpetuity, and the land underneath would not be available for other potential uses, though the surface of the landfill could support non-structural activities after closure. The maximum 20 extra feet of height of the landfill would be visible from some viewpoints offsite; however, once completed, the landfill would be landscaped with native vegetation to minimize visual contrast. This would help to reduce long-term visual impacts from the Proposed Project.

4.9 The Relationship Between Local Short-Term Use of Environment and the Maintenance and Enhancement of Long-Term Productivity

Short-Term Impacts

The short-term effects of the Proposed Project are those associated with construction. Construction would affect the immediate area in the form of landform alternation, and generation of traffic and airborne particles (dust). Phase I has not been accepting waste for more than a decade, and so there is vegetation in unused areas, as discussed in the biology section. However, with or without the Proposed Project, during ongoing operations and/or at the time of closure, when the entire landfill will be regraded and revegetated, these plants will be impacted. It is anticipated that closure activities will follow the outline provided in the Closure Plan; however, the Closure Plan will have to be re-submitted to regulatory agencies to ensure compliance with any laws that may be in force at that time. Regulatory agencies may make changes to the proposed Closure Plan. This is true with or without the Proposed Project. Therefore there is no change in potential short term impacts associated with the Proposed Project.

Long-Term Productivity

The Proposed Project would enhance the long-term productivity of City and USMC resources by extending the service life of Miramar Landfill. The public would benefit because haulers from the City would not having to commit additional resources to hauling waste an additional seven miles to Sycamore Landfill, or to other, more distant landfills. The DoD would conserve resources by not having to pay for disposal of military solid waste for the additional service life of the landfill. After closure of Miramar Landfill, the military would need to expend resources in order to dispose of solid waste. The financial and other resources conserved by implementation of the Proposed Project would be available to address other public service needs. Finally, the proposed vertical expansion would benefit all of San Diego County by providing additional in-county landfill capacity, and delaying the need for commitment of resources to develop additional landfill sites.

4.10 Unavoidable Adverse Impacts

As discussed above, implementation of the Proposed Project would cause less than significant changes to the visual character of the area. The maximum 20-foot higher landform created by the proposed expansion would be expected to remain in perpetuity, and the land underneath would not be available for other potential structures, though the surface of the landfill could support non-structural activities after closure. The additional height of the landfill would be visible from some viewpoints offsite; however, once completed, the landfill would be landscaped with native vegetation to minimize visual contrast. No other unavoidable adverse impacts are anticipated.

5.0 CONSULTATION AND COORDINATION

In addition to compliance with NEPA and CEQA, other laws, regulations, and executive orders designed to protect environmental resources need to be satisfied prior to implementation of the Proposed Project. These laws, regulations, and executive orders, and their applicability to the Proposed Project, are described below.

5.1 National Natural Landmarks

The Secretary of the Interior is authorized to designate areas as National Natural Landmarks for listing on the National Registry of Natural Landmarks pursuant to the Historic Act of 1935, 16 U.S. Code (USC) 461 *et. seq.* Agencies that must take actions to allow the Proposed Project, including the DoD and City of San Diego, must consider the existence and location of natural landmarks, using information provided by the National Park Service pursuant to 36 CFDR 62.6(d). The Miramar Mounds National Natural Landmark, a collection of vernal pools, is located near the southern boundary of MCAS Miramar, approximately one-quarter mile southeast of the Proposed Project area (National Park Service (a), 2004). The Proposed Project would occur within the existing WML and no runoff from this area comes near the Landmark. Thus, the Proposed Project would not affect the Miramar Mounds National Natural Landmark, or other National Natural Landmarks.

5.2 Cultural Resources

The *National Historic Preservation Act* (NHPA), as amended, 16 USC 470, directs federal agencies to integrate historic preservation into all activities that either directly or indirectly involve land use decisions. The NHPA is administered by the National Park Service, the Advisory Council on Historic Preservation, State Historic Preservation Officers, and each federal agency. Implementing regulations include 36 CFR Part 800: *Regulations of the Advisory Council on Historic Preservation Governing the NHPA Section 106 Review Process*. Section 106 of the NHPA requires federal agencies to take into consideration the impact that an action may have on historic properties that are included on, or are eligible for inclusion on, the National Register of Historic Places. In addition, the *Archaeological and Historic Preservation Act* (AHPA) of 1974, 16 USC 469 *et seq.* provides for the preservation of cultural resources if an EPA activity may cause irreparable loss of destruction of significant scientific, prehistoric, or archaeological data. In accordance with the *Archaeological and Historic Preservation Act*, the responsible official or the Secretary of the Interior is authorized to undertake data recovery and preservation activities. The Proposed Project would occur within the existing footprint of the WML. Thus, the Proposed Project site has previously been disturbed, and does not contain significant cultural resources.

5.3 Flora and Fauna

Fish and Wildlife Protection – The Fish and Wildlife Coordination Act, 16 USC 661 *et. seq*., requires federal agencies involved in actions that would result in the control or structural modification of any natural stream or body of water for any purpose, to take action to protect the fish and wildlife resources that may be affected by the action. No U.S. streams or water bodies would be modified as a result of the Proposed Project. Potential hydrologic and water quality impacts are evaluated in Section 5.1.2 of this document. No significant hydrologic or water quality impact was identified as a result of the Proposed Project. Additional protection for wildlife is provided in California Fish and Game Code Sections 355 *et seq*., which addresses migratory birds where it applies. Migratory birds are also addressed by the Migratory Bird Treaty Act, which implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under these laws it is important to avoid nesting sites of protected birds, for example those listed in Fish and Game Code Section 3511. No such nesting sites have been detected or are likely to occur within the existing landfill footprint; however, existing operations include onsite, staff biologists, who can alter landfill activities if any protected wildlife is detected at any time. The Proposed Project would not change this existing situation.

Endangered Species Protection – The Endangered Species Act, 16 USC 1536 *et seq*., prohibits agencies from jeopardizing threatened or endangered species or adversely modifying habitats essential to their survival. No impacts on endangered species or to critical habitats are anticipated from the Proposed Project, which would be within the footprint of an existing, operating landfill.

5.4 Air Quality

The Clean Air Act requires federal actions to conform to any state implementation plan approved or promulgated under Section 110 of the Act. For EPA actions, the applicable conformity requirements specified in 40 CFR Part 51, Subpart W; 40 CFR Part 93, Subpart B; and the applicable state implementation plan must be met. Under the Federal Rule on General Conformity, 40 CFR Part 93, a conformity determination is required only when emissions occur in a non-attainment area. Impacts to air quality from the Proposed Project are discussed in Section 5.1.1. No air quality impacts were identified.

5.5 Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," and the accompanying presidential memorandum, advise federal agencies to identify and address, whenever feasible, disproportionately high and adverse human health or environmental effects to minority communities and/or low-income communities.

Environmental justice became part of California's laws through legislation enacted in 1999 and 2001. It was formally defined in 1999 by Senate Bill 115, which designated the Office of Planning and Research (OPR) as the agency charged with coordinating the state's efforts for environmental justice programs. In 2000, Senate Bill 89 established a procedural framework for pursuing environmental justice. In 2001 Senate Bill 828 required Cal/EPA to identify and address gaps in its programs that may impede the achievement of environmental justice, and also, Assembly Bill 1553 required the Office of Planning and Research to establish guidelines for incorporating environmental justice into the general plans adopted by cities and counties. Finally, in 2002, Senate Bill 1542 required the California Integrated Waste Management Board to provide local jurisdictions and private businesses with information and models to assist with consideration of environmental justice concerns in the development and revision of countywide siting elements for solid waste disposal facilities.

The CIWMB is responsible for certifying, overseeing, and evaluating the 55 local enforcement agencies (LEAs) in the state. In turn, LEAs are responsible for inspecting and issuing permits for solid waste facilities. The CIWMB also must decide whether to concur in the issuance of any solid waste facilities permit by a LEA, pursuant to specific requirements in statute. Although the statutory criteria do not include environmental justice concerns, the CIWMB incorporates this consideration as much as possible. In part because of this emphasis, in 2006 the CIWMB adopted revised regulations expanding public noticing and hearing requirements to both revised and new solid waste facilities permits, with which the Proposed Project must comply.

The CIWMB encourages the provision of information to the public via workshops and websites about proposed and existing facilities and permits, and this is something that has been provided for the WML. The CIWMB also encourages local governments to address illegal dumping, which often occurs disproportionately in lower income neighborhoods. As previously discussed, the City provides community cleanups and also litter enforcement to help address this environmental justice concern.

Environmental justice considerations also are discussed in Section 8.0. No significant direct or indirect environmental impacts to any persons or groups were identified in this EIS/EIR. Therefore, no significant environmental justice impacts would occur.

5.6 Other Issues

Wetlands Protection – Executive Order 11990, "Protection of Wetlands" of 1977, requires federal agencies conducting certain activities to avoid, to the extent possible, adverse impacts associated with the destruction or loss of wetlands and to avoid support of new construction in wetlands, if a practicable alternative exists. In 1989, then President Bush announced a policy of "no net loss" of wetlands, a policy which has been repeated by subsequent administrations, and is reflected in the City's General Plan. Discharge of dredge or fill material into wetlands and other waters of the U.S. are also regulated under Section 404 of the Clean Water Act.

Additionally, both the State of California and the City of San Diego have policies and regulations to protect wetlands, with a goal of achieving "no net loss" of such lands, and retaining "in-kind functions and values." The state policy is detailed in Executive Order W-59-93, signed by Governor Wilson in 1993. That order establishes a state wetlands conservation policy, and designates the Resources Agency and CalEPA as co-lead agencies in the effort. Additionally, Fish and Game Code Section 1602 provide restrictions on alterations to streambeds. The City of San Diego Municipal Code Section 143.0141, provides regulations regarding sensitive biological resources, including wetlands (subsection (b)). It was enacted in 1997, and amended in 1999.

The proposed height increase would take place within the area of an existing, operating landfill. Therefore, the Proposed Project would avoid drainages, and no wetlands would be filled or otherwise adversely affected by the Proposed Project.

Floodplain Management – EO 11988, "Floodplain Management" of 1977, requires federal agencies to evaluate the potential effects of actions they may take in a floodplain to avoid, to the extent possible, any adverse effects associated with the direct and indirect development of a floodplain. The Proposed Project would take place within an existing, operating landfill, and none of the components of the Proposed Project occurs within a U.S. floodplain (FEMA, FIRM# 0602951607F, June 1997).

Important Farmlands – The Farmland Protection Policy Act, 7 USC 4201 *et seq*., and the U.S. Department of Agriculture's implementing procedures require federal agencies to evaluate the adverse effects of their actions on prime and unique farmland, including farmland of statewide and local importance. The Proposed Project would occur within an existing landfill. The Proposed Project site is already disturbed by the prior deposition of solid waste, and, as such, does not constitute important farmlands.

Greenhouse Gases – In California, Executive Order (EO) S-3-05 specifies that by 2010 greenhouse gases must be reduced to year 2000 emission levels, and by 2020 to 1990 emission levels. The legislature supported the Governor's EO with passage of Assembly Bill 32, *The California Climate Solutions Act of 2006,* which specifies a similar reduction: 1990 levels by 2020.

According to CEQA Guidelines §15002(a)(1), one of the basic purposes of CEQA is to, "Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities." Although a discussion of global warming impacts is not currently required by the CEQA Statutes or Guidelines, it is the view of the State Legislature (as expressed in its adoption of *The California Climate Solutions Act of 2006*) that global warming poses significant adverse effects to the environment of the state of California and the entire world. In addition, the global scientific community has expressed very high confidence (i.e., at least 90 percent) that global warming is anthropogenic, i.e., caused by humans, and that global warming will lead to adverse climate change effects around the globe (IPCC 2007).

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25 to 35 percent under the lower warming range to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90ºF in Los Angeles and 95ºF in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

If Greenhouse Gas (GHG) emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. The current water distribution system relies on Sierra Nevada mountain snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

On January 29, 2002, the San Diego City Council unanimously approved the San Diego Sustainable Community Program. Included in this program are: the City's GHG Emission Reduction Program, which sets a reduction target of 15 percent by 2010, using 1990 as a baseline; establishment of a scientific *Ad Hoc* Advisory Committee to expand the GHG Emission Reduction Action Plan for the City organization and broaden the scope to include community actions; membership in the International Council for Local Environmental Initiatives (ICLEI) City for Climate Protection (CCP) Campaign to reduce GHG emissions; and charter membership in the California Climate Action Registry.

The City of San Diego's Climate Protection Action Plan (2005) calls for the City to achieve a 15 percent reduction in GHG emissions by 2010. This action plan projects that global warming would result in impacts to the City associated with water and energy shortages, loss of beaches and coastal property, higher average temperatures, and decreases in revenue from tourism and agriculture. According to the action plan in the City (including all residential, business, and commercial sectors within the City limits) the transportation sector (i.e., vehicle miles traveled) is responsible for approximately one-half (51 percent) of GHG emissions, followed by energy (electricity and natural gas) consumption (29 percent), and solid waste/landfills (20 percent). For the City's municipal operations, solid waste landfills represents a plurality (25 percent) of GHG emissions, followed by employee commutes (23 percent), water and sewage operations and facilities (18 percent), City buildings (17 percent), the City's vehicle fleet (12 percent), and streetlights (five percent). Overall, City residents and businesses are responsible for approximately 98 percent of GHG emissions (15.3 million tons) within the City, while municipal government operations are responsible for the remaining two percent (0.2 million tons) (City of San Diego 2005).

In recognition of the fact that local action is needed to reduce the impacts of global warming, the action plan provides a series of recommendations to be implemented by the City in order to achieve the 15 percent reduction in GHG emissions (using 1990 as a baseline) by 2010. Baseline (1990) GHG emissions for the City were estimated at 15.5 million tons of carbon-dioxide equivalent (carbon-dioxide equivalent is a calculation that enables all GHG emissions to be considered as a group in order to measure the impact of all GHG emissions). If no action were taken to address GHG emissions before 2010, the City is forecasted to emit 22.5 million tons of carbon dioxide equivalent in 2010. The goal of a 15 percent reduction in GHG emissions equals a total of 13.2 million tons of carbon dioxide equivalent in 2010. Therefore, achievement of the 15 percent reduction would require the City to reduce total GHG emissions by 9.3 million tons of carbon dioxide equivalent. In order to achieve this goal, the GHG emission reduction measures of the action plan target emissions from the transportation, energy and waste sectors through a two-phase strategy.

During Phase One (1994-2003) of the emission reduction strategy, the City reduced total GHG emissions by 3.8 million tons of carbon dioxide equivalent through a combination of increasing energy efficiency, retrofitting transit infrastructure, recycling, and recovering landfill gas. Approximately 3.6 million tons (95 percent) of the emissions reductions were associated with the capture of methane gas from solid waste landfills and sewage treatment plants, as well as recycling programs. The City needs to reduce GHG emissions by an additional 5.5 million tons of carbon dioxide equivalent by 2010 to meet its goal for a 15 percent reduction. In order to meet this goal, the Climate Protection Action Plan calls for the City to reduce GHG emissions through the several reduction measures; the solid waste reduction measures are listed below:

- Continue to implement the Construction and Demolition Debris (C&D) Diversion Deposit Ordinance to reduce the amount of GHG emissions associated with the disposal of solid waste into landfills;

- Consider bolder incentives to expand waste minimization efforts:

    - Develop and adopt a construction and demolition recycling ordinance;
    - Develop and adopt a commercial paper recycling ordinance; and
    - Develop and adopt a multifamily recycling ordinance.

The City has already reduced a sizeable portion of solid waste-related GHG emissions through existing waste diversion measures and landfill gas control and use.

The City's strategy includes continuing to implement waste diversion programs and ordinances that reduce the amount of emissions associated with landfills, with a special emphasis on diverting from disposal construction and demolition debris, waste paper generated by the commercial sector, and waste originating from multifamily housing. The Proposed Project is complementary with these diversion strategies and is consistent with the Executive Order, *The California Climate Solutions Act of 2006,* and the City's policy in that the emission rates would not increase. The Proposed Project captures gases and uses them to generate electricity. It

maintains emission rates at no more than 1990 levels. Furthermore, the facility is centrally-located, keeping emissions associated with transportation of wastes to a minimum.

The California Air Resource Board has been directed to develop regulations and a reporting system to track and monitor emissions levels; however, these regulations have not yet been developed, and no guidance for thresholds or significance has been developed at the state or local level.

Coastal Zone Management Act – The Coastal Zone Management Act, 16 USC 1451 *et seq*., requires that federal agencies in coastal areas be consistent with approved State Coastal Zone Management Programs, to the maximum extent possible. If a federal action may affect a coastal zone area, the responsible official is required to assess the impact of the action on the coastal zone. The Proposed Project would not affect a coastal zone area. The nearest coastal zone (Pacific Ocean) is more than seven miles west of the Proposed Project.

Coastal Barrier Resources Act – The Coastal Barrier Resources Act, 16 USC 3501 *et seq*., generally prohibits new federal expenditures and financial assistance for development within the Coastal Barrier Resources System and therefore protects ecologically sensitive U.S. coastal barriers. The Proposed Project does not affect any coastal barrier resources, since it is more than seven miles from the coastline.

Wild and Scenic Rivers – The Wild and Scenic Rivers Act, 16 USC 271 *et seq*., establishes requirements applicable to water resource projects affecting wild, scenic, or recreational rivers within the National Wild and Scenic Rivers System, and rivers designated on the National Rivers Inventory. No designated wild and scenic rivers occur within the County of San Diego (National Park Service (b), 2004).

Wilderness Protection – The Wilderness Act, 16 USC 1131 *et seq*., establishes a system of National Wilderness Areas. The Wilderness Act establishes a policy for protecting this system by generally prohibiting motorized equipment, structures, installations, roads, commercial enterprises, aircraft landings, and mechanical transport. No wilderness areas occur near the Proposed Project site. The nearest wilderness areas are located in Cleveland National Forest, more than 30 miles away.

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6.0 REFERENCES

6.1 Certification Page

The EIR information contained in this document was prepared by the Environmental Analysis Section of the City of San Diego's Development Services Department. It represents the independent analysis of the City of San Diego as lead agency under CEQA, and the United States Marine Corps as the lead agency under NEPA. The following professional staff participated in its preparation:

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8.0 CORRESPONDENCE

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